ABRAMS®
PREMIUM STEEL

PRECISION

IN

TOOL STEEL

HIGH SPEED STEEL

STAINLESS STEEL, corrosion resistant

STAINLESS STEEL, acid resistant

HEAT-TREATABLE STEEL

CASE HARDENING STEEL

NITRIDING STEEL

70 STEEL GRADES IN 32.629 DIMENSIONS
EX WORKS FROM OSNABRÜCK / GERMANY
DELIVERY IN 3-5 WORKING DAYS (SUBJECT TO AVAILABILITY)

WITHOUT MINIMUM ORDER VALUE OR QUANTITY
FROM EUROPE'S LARGEST RANGE OF SEMI-FINISHED PRODUCTS
SPECIAL CUSTOM DIMENSIONS ON REQUEST – SAWN – MILLED – GROUND

CONSISTENTLY DYNAMIC !

… that is ABRAMS®.

New product line **ABRAMS PREMIUM ALUMINIUM®**	2020	
New product line **Hart-Präz®**	2018	Expansion to **70** PREMIUM steel grades and **32.629** dimensions
New product line **ABRAMS® PREMIUM TOOLS**	2015	
	2011	Expansion to **52** PREMIUM steel grades and **21.078** dimensions
The **ABRAMS STEEL GUIDE®** going live	2010	
	2009	Expansion to **35** PREMIUM steel grades and **8.259** dimensions
	2008	Expansions to **32** PREMIUM steel grades and **7.155** dimensions
	2007	Expansion to **22** PREMIUM steel grades and **5.954** dimensions
Print of the first **ABRAMS®** art calendar	2006	
	2005	Expansion to **10** Premium steel grades and **3.649** dimensions
Market launch of **ABRAMS PREMIUM STEEL®**	2003	Launch of **8** PREMIUM steel grades and **2.805** dimensions
Founding of **ABRAMS®**	2002	Founding of **ABRAMS®** Registration: **ABRAMS Engineering Services GmbH & Co. KG** After rebranding in 2020: **ABRAMS Industries GmbH & Co. KG**

Yours sincerely,

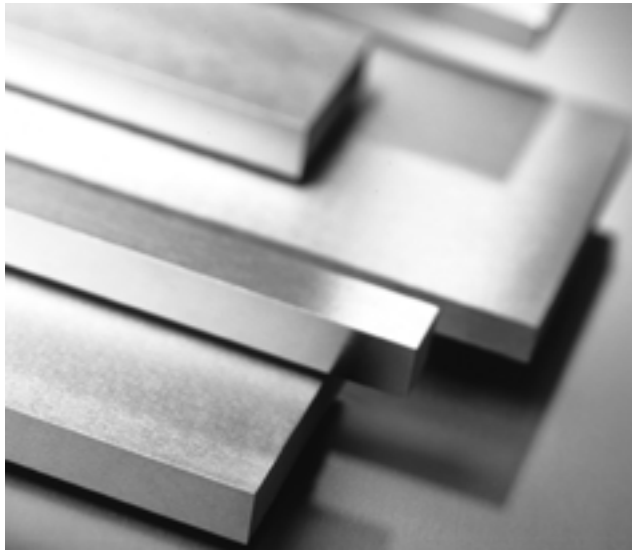
Dr. Jürgen Abrams
Managing Director

VERSATILE!

ABRAMS® PREMIUM STEEL

PREMIUM STEEL

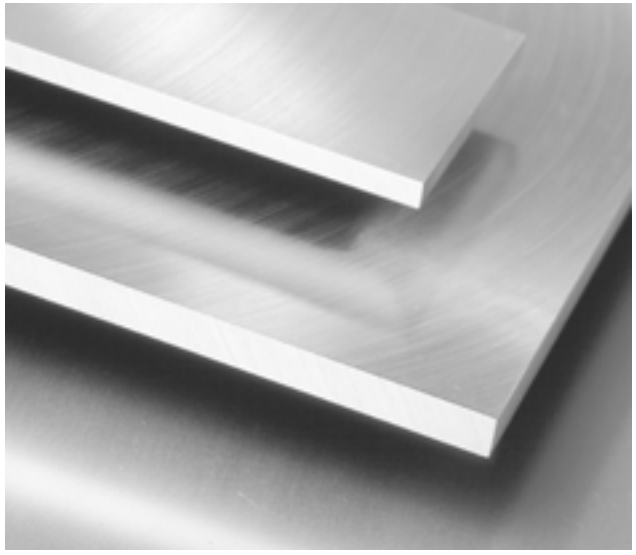
- **70** steel grades in **32.629** dimensions
- **PRECISION FLAT STEEL** with / without machining allowance
- **€co-Präz®** - Standardized precision blanks
- **Hart-Präz®** - Hardened precision plates
- **PRECISION ROUND STEEL**
  with / without machining allowance
- **ROUND STEEL**
- **EROSION BLOCK** annealed / hardened
- WITHOUT MINIMUM ORDER VALUE OR QUANTITY
- SPECIAL CUSTOM DIMENSIONS SAWN - MILLED - GROUND



ABRAMS® PREMIUM ALUMINIUM

PREMIUM-ALUMINIUM

- **8** alloys in **4.307** dimensions
- In **3** specifications
  - **ALU-PRÄZ®**
  - **PRECISION ROUND ALUMINIUM**
  - **ROUND ALUMINIUM**



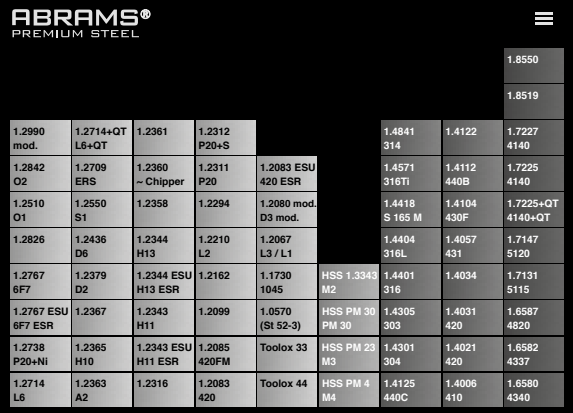
ABRAMS® PREMIUM TOOLS

PREMIUM-UNIVERSAL-TAPS

- **96** items in **6** categories
- Metric standard thread
  - For clearance holes
    - **M-DIN 371-Form B**
    - **M-DIN 376-Form B**
  - For blind holes
    - **M-DIN 371-Form C**
    - **M-DIN 376-Form C**
- Metric fine thread
  - For clearnace holes
    - **MF-DIN 374-Form B**
  - For blind holes
    - **MF-DIN 374-Form C**

THE ABRAMS STEEL GUIDE® !

Our patented application can be downloaded onto your smartphone (iPhone/ android phones) or tablet (iPad/android tablets), as well as being available as a free web browser on your PC (see **www.steel-guide.eu**). The following graphics have been taken from the iPhone version.



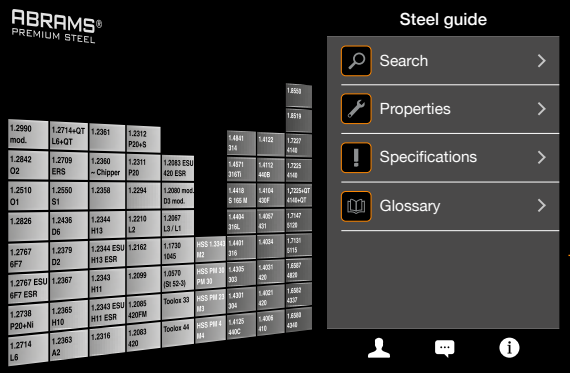
TWO POSSIBLE WAYS TO START
E.g. you need TOOL STEEL for a stamping tool.

STEP 1 A

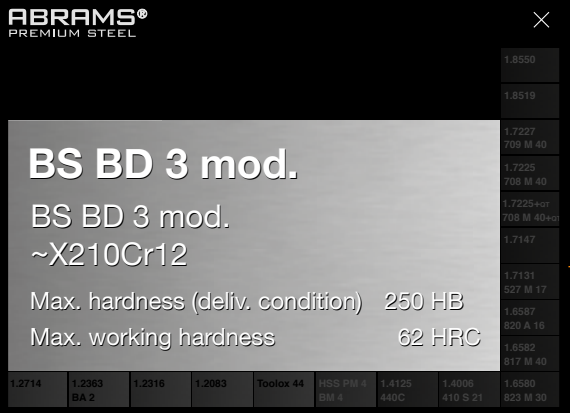
You know the technical requirements and you are looking for the suitable steel grade.

STEP 1 B

Choose a steel grade you know and usually work with.



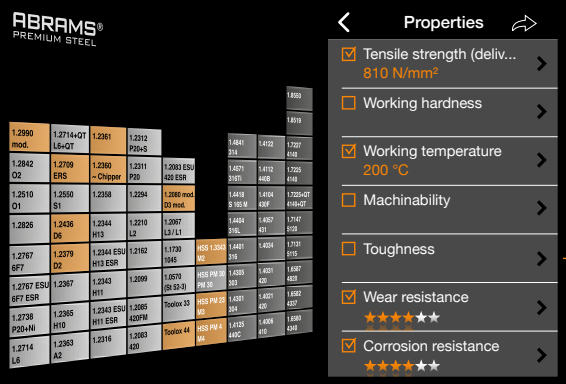
In the ABRAMS STEEL GUIDE® menu you will find a full text search, a summary of technical properties, a list of specifications we deliver and a glossary of steels, alloys and heat treatments.



Your desired steel grade will be shown with first indicative traits.

STEP 2 A

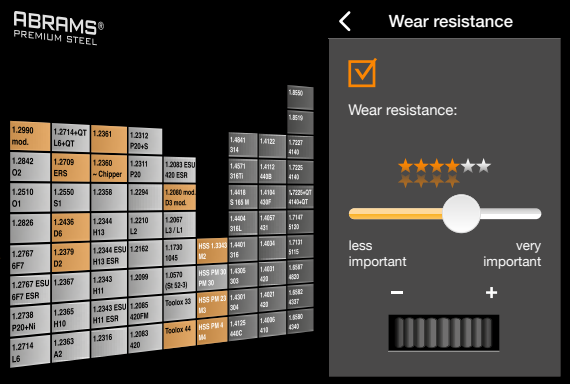
For example, click to open the property view.



Choose the most important technical properties – in any desired combination.

STEP 3 A

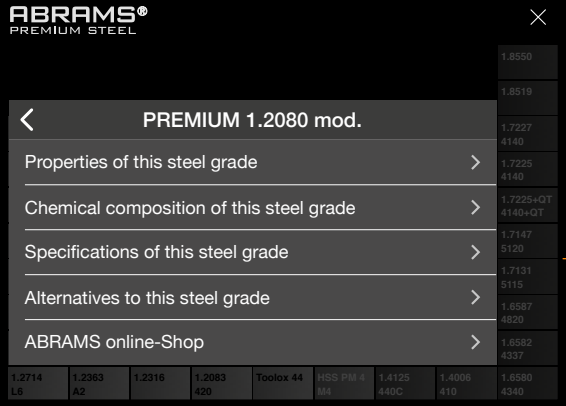
Click to choose each of the properties to optimise them.



Here you can optimise any property, such as wear resistance – e.g. if it is less important or very important for your stamping tool. You immediately get the steel grade you need.

STEP 2 B

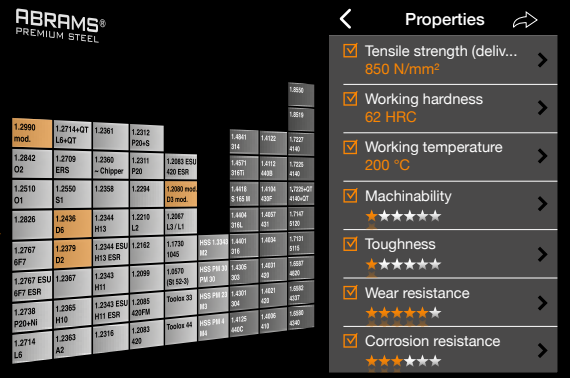
Click to get the detailed view.



Here you have all the details of the chosen steel grade: technical properties, chemical composition and specifications. Search for alternatives and get direct access to our online shop.

STEP 3 B

Here we have chosen the function "alternatives to the grade AISI / SAE D3 mod".



As a result, a highlighted list of steel grades appears with similar or possibly better properties than AISI / SAE D3 mod. You can adjust or delete single properties, thus enabling you to find the ideal steel grade for your stamping tool.

PRODUCTION + STOCK !

ABRAMS PREMIUM STEEL® is a licensed distributor for many European industrial enterprises.

THERE ARE 3 GOOD REASONS FOR THIS:

❶ **FLEXIBILITY**
because we produce for you
on site in Osnabrück/Germany.

❷ **SHORT DELIVERY TIMES**
because we have large storage capabilities
of raw materials and precision steel.

PREMIUM QUALITY RIGHT DOWN TO THE FINEST DETAIL !

TÜV NORD EnSys Hannover GmbH & Co. KG
Energie und Systeme

Institut für Materialprüfung
Material Testing Laboratory

TÜV NORD

Certificate of quality
Abnahmeprüfzeugnis 3.2 nach DIN EN 10204 Nr. 110300 A

Auftraggeber: Abrams Engineering Services GmbH & Co KG

Hannoversche Str. 38, 49084 Osnabrück

❸ **PREMIUM QUALITY**
because we use certified Mass Spectrometry (high-precision photomultiplier) and hardening testing technologies.

SPECIFICATIONS !

Our delivery program contains 32.629 different specifications/standard dimensions.
Any dimension is available in different **heights**, **widths** and **lengths**. On request – according to your needs!

Precision flat steel without machining allowance [PFS] acc. to DIN 59350

For example: 100,0 x 20,0 x 1.000 mm

- **W** ground/milled, tol. +0,2/-0 mm
- **T** coplanar ground, tol. +0,05/-0 mm
- **L** milled/sawn, tol. +35/-0 mm
- **Exception: PREMIUM 1.1730 – AISI / SAE 1045: W** +0,4/-0 mm, **T** +0,25/-0 mm

Precision round steel without machining allowance [PRS]

- bright ground, tol.: ∅ ISO h8, **L** +10/-10 mm
- bright drawn/finely peeled/ground, tol.: ∅ ISO h9, **L** +10/-10 mm
- bright finely peeled, tol.: ∅ ISO h11, **L** +10/-10 mm

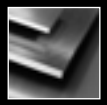
Precision flat steel with machining allowance [PRS/BA]

For example: 100,3 x 20,3 x 1.000 mm

- **W** ground/milled, tol. +0,4/-0 mm
- **T** coplanar ground/finely milled, tol. +0,4/-0 mm
- **L** milled/sawn, tol. +35/-0 mm

Precision round steel with machining allowance [PRS/BA]

- peeled/rough-turned, tol.: ∅ +tol./-0 mm, **L** +tol./-0 mm
- **Exception PREMIUM 1.3343 – AISI / SAE M2: L** 1.000 mm, tol. **L** +10/-10 mm
- **Particularity: PREMIUM 1.2826 – AISI / SAE 1.2826, PREMIUM 1.2360 – AISI / SAE ~Chipper, PREMIUM 1.2067 – AISI / SAE L3:** ∅ are metric full values (for example 30,0 mm), therefore there is no basic machining allowance (for example 30,5 mm)



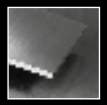
€co-Präz® [€co]

For example: 103 x 20,3 x 500 mm

- **W** sawn/black, tol. +3/-0 mm
- **T** finely milled, tol. +0,4/-0 mm
- **L** sawn/black, tol. +15/-0 mm

Round steel [RS]

- black, tol.: ∅ +1/-1 mm (aspired), **L** +tol./-0 mm



Hart-Präz® [Hart]

For exmaple: 250 x 10,2 x 500 mm

- **W** sawn/black, Tol. +10/-0 mm
- **T** coplanar ground, Tol. +0,2/-0 mm
- **L** sawn/black, Tol. +10/-0 mm

Planeness: +0,2/-0 mm of the entire surface (aspired)

Erosion block/EDM block – annealed or hardened [EB]

For example: 200,3 x 200,3 x 40,0 mm

- **Square dimension** milled/ground, tol. +2/-0 mm
- **T** finely milled/ground, tol. +0,25/-0 mm
- Grain structure is vertically directed in relation to base surface

STEEL CLASSIFICATIONS !

Steel grades are classified by their technical **properties** and/or by their **intended use**.

For example:
Cold work steel, hot work steel, plastic mould steel, high speed steel, corrosion resistant steel or case hardening steel.
Steel grades are often assigned to several classification groups.

For more details on classification see www.steel-guide.eu/glossary

ABRAMS PREMIUM STEEL® – QUALITY THAT WILL IMPRESS YOU!

ABRAMS! PREMIUM STEEL®

TOOL STEEL

STEEL GRADE

STEEL GRADE	Description	PFS 500 mm	PFS 1.000 mm	PFS/BA 500 mm	PFS/BA 1.000 mm	PFS/BA 200, 300, 400, 600 mm	Eco-Präz® 300, 500, 1.000 mm	Hart-Präz® 250, 500 mm	Erosion block (annealed, hardened)	PRS ISO h8 / h9 / h11 1.000 mm	PRS/BA 500 mm	PRS/BA 1.000 mm	RS 500 mm	RS 1.000 mm	Delivery hardness (annealed/tempered) max. [HB]	Delivery hardness (hardened) approx. [HRC]	Approx. tensile strength [N/mm²] (deliv. cond.)	Max. working hardness [HRC]	Cold work steel	Hot work steel	Plastic mould steel	High speed steel	Corrosion resistant steel	Acid resistant steel	Heat-treatable steel	Case hardening steel	Nitriding steel	
PREMIUM 1.2990 mod. AISI / SAE 1.2990 mod.	~X100CrMoV8-2						✓				✓	✓			250		850	63	✓		✓							**1.2990 mod. 1.2990 mod.**
PREMIUM 1.2842/1.2510 AISI / SAE O2/O1	90MnCrV8/100MnCrW4	✓	✓	✓	✓			✓		✓	✓	✓			229	57	770	62	✓		✓							**1.2842 O2/O1**
PREMIUM 1.2826 AISI / SAE 1.2826	60MnSiCr4								✓		✓				220		750	60	✓									**1.2826 1.2826**
PREMIUM 1.2767 AISI / SAE 6F7	45NiCrMo16			✓	✓				✓	✓	✓				260		880	54	✓	✓	✓							**1.2767 6F7**
PREMIUM 1.2767 ESU AISI / SAE 6F7 ESR	45NiCrMo16						✓								260		880	54	✓	✓	✓							**1.2767 ESU 6F7 ESR**
PREMIUM 1.2738 AISI / SAE P20+Ni	40CrMnNiMo8-6-4						✓				✓	✓			325		1100	50	✓		✓							**1.2738 P20+Ni**
PREMIUM 1.2714 AISI / SAE L6	55NiCrMoV7						✓				✓	✓			250		850	54		✓								**1.2714 L6**
PREMIUM 1.2714+QT AISI / SAE L6+QT	55NiCrMoV7+QT						✓						✓	✓	400		1350	54		✓								**1.2714+QT L6+QT**
PREMIUM 1.2709 ESU AISI / SAE 1.2709 ESR	X3NiCoMoTi18-9-5										✓	✓	✓	✓	325		1100	56	✓	✓	✓							**1.2709 ESU 1.2709 ESR**
PREMIUM 1.2550 AISI / SAE S1	60WCrV8						✓				✓	✓			229		770	60	✓	✓								**1.2550 S1**
PREMIUM 1.2436 AISI / SAE D6	X210CrW12	✓		✓	✓			✓			✓	✓			255	59	860	63	✓									**1.2436 D6**
PREMIUM 1.2379 AISI / SAE D2	X153CrMoV12			✓	✓	✓	✓	✓	✓	✓	✓	✓			255	57	860	62	✓		✓							**1.2379 D2**
PREMIUM 1.2367 AISI / SAE 1.2367	X38CrMoV5-3						✓				✓	✓			229		770	54		✓	✓							**1.2367 1.2367**
PREMIUM 1.2365 AISI / SAE H10	32CrMoV12-28						✓				✓	✓			229		770	52		✓	✓							**1.2365 H10**
PREMIUM 1.2363 AISI / SAE A2	X100CrMoV5-1			✓	✓						✓	✓			241		815	62	✓		✓							**1.2363 A2**
PREMIUM 1.2361 AISI / SAE 1.2361	X91CrMoV18				✓		✓	✓		✓	✓	✓			265	53	900	58	✓		✓		✓	✓				**1.2361 1.2361**
PREMIUM 1.2360/mod. AISI / SAE ~ Chipper/mod.	X48CrMoV8-1-1						✓				✓	✓			250		850	60	✓									**1.2360 ~ Chipper**
PREMIUM 1.2358 AISI / SAE 1.2358	60CrMoV18-5						✓								325		1100	60	✓	✓	✓							**1.2358 1.2358**
PREMIUM 1.2344 AISI / SAE H13	X40CrMoV5-1										✓	✓			229		770	56		✓	✓							**1.2344 H13**
PREMIUM 1.2344 ESU AISI / SAE H13 ESR	X40CrMoV5-1						✓								229		770	56		✓	✓							**1.2344 ESU H13 ESR**

NAVIGATION/ STEEL GRADES

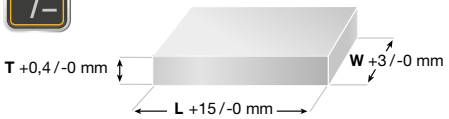
1.2990 mod.
1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

PREMIUM 1.2990 mod. – AISI / SAE 1.2990 mod. (~X100CrMoV8-2)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 250 HB
Chemical composition: (+additives):

C	Cr	Mo	V
1,0 - 1,0	8,0 - 8,0	1,8 - 2,7	0,15 - 0,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/2990mod-5

Technical properties

An all-rounder amongst the cold work steels: high toughness, good pressure resistance, excellent compression strength, excellent wear and tempering resistance. It is secondary-hardened and has a good dimensional stability, good erosion quality and excellent nitridability. Working hardness: approx. 57-63 HRC.

Applications

Blanking tools, stamping tools, precision cutting tools, dies, punches, thread rolling tools, cold pilger mandrels, plastic moulds, cold rollings, cold extrusion tools, cold forming tools, deep drawing dies, woodworking tools, embossing tools, bending tools, machine knives, circular shear knives, machine parts.

AISI / SAE 1.2990 mod. – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2990mod

via smartphone / tablet:

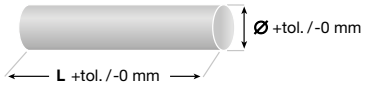
PREMIUM 1.2990 mod. – AISI / SAE 1.2990 mod. (~X100CrMoV8-2)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled/rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
25,5	●	●
30,5	●	●
35,5	●	●
40,5	●	●
50,5	●	●
60,5	●	●
70,5		●
80,5		●
90,5		●
100,5		●

Larger diameters, up to 450,5 mm and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 250 HB
Chemical composition: (+additives):

C	Cr	Mo	V
1,0 - 1,0	8,0 - 8,0	1,8 - 2,7	0,15 - 0,5

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/2990mod-7

Technical properties

An all-rounder amongst the cold work steels: high toughness, good pressure resistance, excellent compression strength, excellent wear and tempering resistance. It is secondary-hardened and has a good dimensional stability, good erosion quality and excellent nitridability. Working hardness: approx. 57-63 HRC.

Applications

Blanking tools, stamping tools, precision cutting tools, dies, punches, thread rolling tools, cold pilger mandrels, plastic moulds, cold rollings, cold extrusion tools, cold forming tools, deep drawing dies, woodworking tools, embossing tools, bending tools, machine knives, circular shear knives, machine parts.

AISI / SAE 1.2990 mod. – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2990mod

via smartphone/tablet:

NAVIGATION/ STEEL GRADES

1.2990 mod.
1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

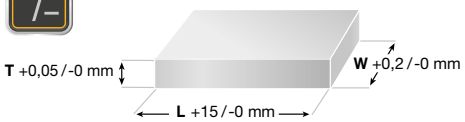
1.2990 mod.
1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

PREMIUM 1.2842/1.2510 – AISI / SAE O2/O1 (90MnCrV8/100MnCrW4)

Precision flat steel without machining allowance, DIN 59350 [PFS]
Length: 500 mm

WIDTH	THICKNESS [mm] 1,0	1,5	2,0	3,0	4,0	5,0	6,0	8,0	10,0	12,0	15,0	16,0	18,0	20,0	25,0	30,0	40,0	50,0	60,0
	Available dimensions [■]																		
4,0					■														
5,0						■													
6,0							■												
8,0								■											
10,0	■	■	■	■	■	■	■	■	■										
12,0	■	■	■	■	■	■	■	■	■	■									
15,0	■	■	■	■	■	■	■	■	■	■	■								
16,0												■							
18,0													■						
20,0	■	■	■	■	■	■	■	■	■	■	■			■					
25,0	■	■	■	■	■	■	■	■	■	■	■			■	■				
30,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■			
35,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■			
40,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■		
50,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
60,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■	■
70,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
80,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
100,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
120,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
125,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
150,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
160,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
180,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
200,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
250,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
300,0	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■	

Tolerances



Standard values (AISI / SAE O2)
Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	V
0,85 - 0,95	0,1 - 0,4	1,8 - 2,2	0 - 0,03	0 - 0,03	0,2 - 0,5	0,05 - 0,2

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Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Technical properties
Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Its technical properties and its applications are similar to those of AISI / SAE O1. Working hardness: 57-62 HRC.

Applications
Blanking and stamping tools (up to 6 mm thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic moulds, rubber moulds, calibres, guide rails, dies, punches, woodworking tools, machine knives.

AISI / SAE O2 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
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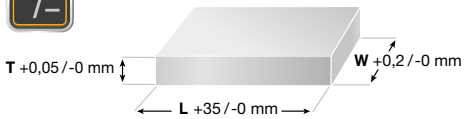
via smartphone / tablet:

PREMIUM 1.2842/1.2510 – AISI / SAE O2/O1 (90MnCrV8/100MnCrW4)

Precision flat steel without machining allowance, DIN 59350 [PFS]
Length: 1.000 mm

WIDTH	THICKNESS [mm]																
	2,0	3,0	4,0	5,0	6,0	8,0	10,0	12,0	15,0	16,0	18,0	20,0	25,0	30,0	40,0	50,0	60,0
	Available dimensions [■]																
4,0			■														
5,0				■													
6,0					■												
8,0						■											
10,0	■	■	■	■	■	■	■										
12,0	■	■	■	■	■	■	■	■									
15,0	■	■	■	■	■	■	■	■	■								
16,0										■							
18,0											■						
20,0	■	■	■	■	■	■	■	■	■			■					
25,0	■	■	■	■	■	■	■	■	■			■	■				
30,0	■	■	■	■	■	■	■	■	■			■	■	■			
35,0	■	■	■	■	■	■	■	■	■			■	■	■			
40,0	■	■	■	■	■	■	■	■	■			■	■	■	■		
50,0	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
60,0	■	■	■	■	■	■	■	■	■			■	■	■	■	■	■
70,0	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
80,0	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
100,0	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
120,0	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
125,0	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
150,0	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
160,0	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
180,0	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
200,0	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
250,0	■	■	■	■	■	■	■	■	■			■	■	■	■	■	
300,0	■	■	■	■	■	■	■	■	■			■	■	■	■	■	

Tolerances



Standard values (AISI / SAE O2)

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	V
0,85 - 0,95	0,1 - 0,4	1,8 - 2,2	0 - 0,03	0 - 0,03	0,2 - 0,5	0,05 - 0,2

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Technical properties

Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Its technical properties and its applications are similar to those of AISI / SAE O1. Working hardness: 57-62 HRC.

Applications

Blanking and stamping tools (up to 6 mm thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic moulds, rubber moulds, calibres, guide rails, dies, punches, woodworking tools, machine knives.

AISI/SAE 02, all at a glance!

Datasheets, online shop,
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via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

1.2990 mod.
1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
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1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

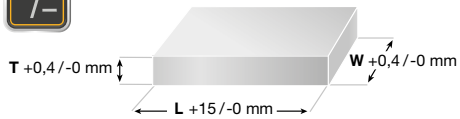
PREMIUM 1.2842/1.2510 – AISI / SAE O2/O1 (90MnCrV8/100MnCrW4)

Precision flat steel with machining allowance [PFS/BA]
Length: 500 mm

WIDTH	THICKNESS [mm]																				
	2,2	3,2	4,2	5,2	6,2	8,2	10,3	12,3	15,3	16,3	18,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	63,3	80,3	100,3
	Available dimensions [■]																				
8,2						■															
10,3	■	■	■	■	■	■	■														
12,3	■	■	■	■	■	■	■	■													
15,3	■	■	■	■	■	■	■	■	■												
16,3										■											
18,3											■										
20,3	■	■	■	■	■	■	■	■	■	■		■									
25,3	■	■	■	■	■	■	■	■	■	■		■	■								
30,3	■	■	■	■	■	■	■	■	■	■		■	■	■							
32,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■						
35,3	■	■	■	■	■	■	■	■	■	■		■	■	■							
40,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■					
50,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■				
60,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■			
63,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■		■		
70,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■		
80,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	
100,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
120,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
125,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
160,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
175,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
180,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
300,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■				
500 *						■	■	■	■			■	■	■		■					

* Width and length sawn/black with +tol./-0 mm

Tolerances



Standard values (AISI / SAE O2)
Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	V
0,85 - 0,95	0,1 - 0,4	1,8 - 2,2	0 - 0,03	0 - 0,03	0,2 - 0,5	0,05 - 0,2

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Any dimension available in different heights, widths and lengths.
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Technical properties
Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Its technical properties and its applications are similar to those of AISI / SAE O1. Working hardness: 57-62 HRC.

Applications
Blanking and stamping tools (up to 6 mm thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic moulds, rubber moulds, calibres, guide rails, dies, punches, woodworking tools, machine knives.

AISI / SAE O2 – all at a glance!
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PREMIUM 1.2842/1.2510 – AISI / SAE O2/O1 (90MnCrV8/100MnCrW4)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]																				
	2,2	3,2	4,2	5,2	6,2	8,2	10,3	12,3	15,3	16,3	18,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	63,3	80,3	100,3
	Available dimensions [■]																				
8,2						■															
10,3	■	■	■	■	■	■	■														
12,3	■	■	■	■	■	■	■	■													
15,3	■	■	■	■	■	■	■	■	■												
16,3										■											
18,3											■										
20,3	■	■	■	■	■	■	■	■	■	■		■									
25,3	■	■	■	■	■	■	■	■	■	■		■	■								
30,3	■	■	■	■	■	■	■	■	■	■		■	■	■							
32,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■						
35,3	■	■	■	■	■	■	■	■	■	■		■	■	■							
40,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■					
50,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■				
60,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■			
63,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■		■		
70,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■		
80,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	
100,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
120,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
125,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
160,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
175,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
180,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
300,3	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	■				
500 *					■	■	■	■	■			■	■	■		■					

* Width and length sawn/black with +tol./-0 mm

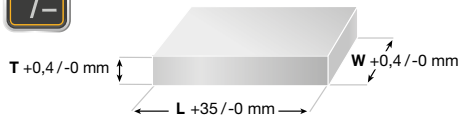
Technical properties

Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Its technical properties and its applications are similar to those of AISI / SAE O1. Working hardness: 57-62 HRC.

Applications

Blanking and stamping tools (up to 6 mm thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic moulds, rubber moulds, calibres, guide rails, dies, punches, woodworking tools, machine knives.

Tolerances



Standard values (AISI / SAE O2)

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	V
0,85 - 0,95	0,1 - 0,4	1,8 - 2,2	0 - 0,03	0 - 0,03	0,2 - 0,5	0,05 - 0,2

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NAVIGATION/ STEEL GRADES

1.2990 mod.
1.2990 mod.
1.2842 O2/O1
1.2826
1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367
1.2367
1.2365 H10
1.2363 A2
1.2361
1.2361
1.2360 ~ Chipper
1.2358
1.2358
1.2344 H13
1.2344 ESU H13 ESR

back to the previous page

next page

NAVIGATION/ STEEL GRADES

1.2990 mod.
1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

PREMIUM 1.2842/1.2510 – AISI / SAE O2/O1 (90MnCrV8/100MnCrW4)

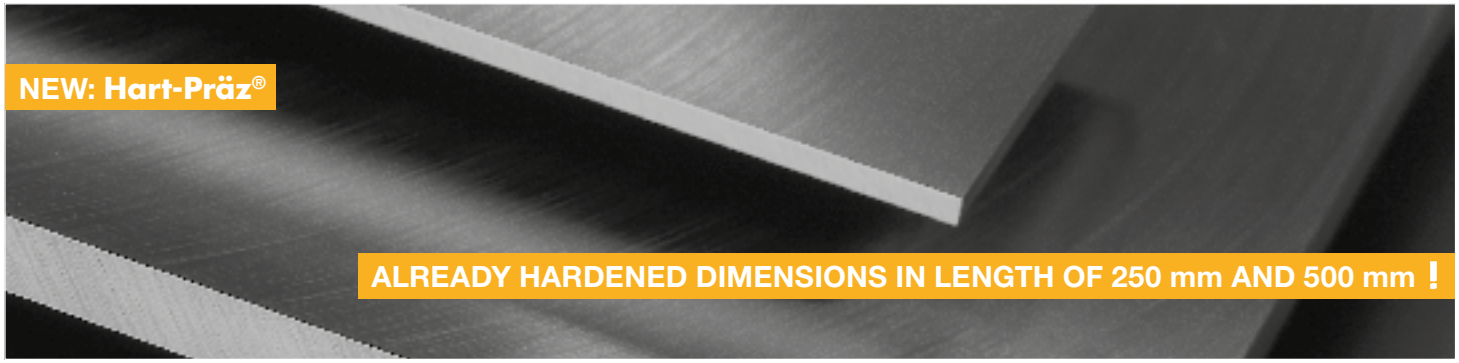
Hart-Präz® 250 [Hart]
Length: 250 mm

WIDTH	THICKNESS [mm]													
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2	14,2
250	Available dimensions [■]													
	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Hart-Präz® 500 [Hart]
Length: 500 mm

WIDTH	THICKNESS [mm]													
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2	14,2
250	Available dimensions [■]													
	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Hardened dimensions are delivered with approx. 57 HRC, at least 2x tempered.



Technical properties
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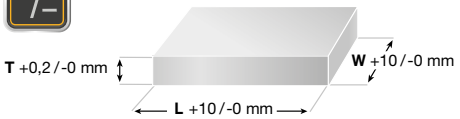
Applications
Blanking and stamping tools (up to 6 mm thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic moulds, rubber moulds, calibres, guide rails, dies, punches, woodworking tools, machine knives.

Tolerances



Standard values (AISI / SAE O2)
Delivery condition: approx. 57 HRC
Chemical composition:

C	Si	Mn	P	S	Cr	V
0,85 - 0,95	0,1 - 0,4	1,8 - 2,2	0 - 0,03	0 - 0,03	0,2 - 0,5	0,05 - 0,2

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/O2-11-H

AISI / SAE O2 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/O2

via smartphone/tablet:

PREMIUM 1.2842/1.2510 – AISI / SAE O2/O1 (90MnCrV8/100MnCrW4)

Precision round steel without machining allowance [PRS]
Specification: bright ground, ISO h8

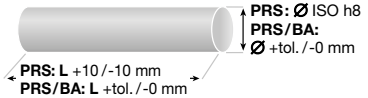
Ø [mm]	LENGTH [mm] 1.000
	Available dimensions [•]
4,5	•
5,0	•
6,0	•
8,0	•
10,0	•
12,0	•
15,0	•
20,0	•
25,0	•

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
10,5	•	•
15,5	•	•
20,5	•	•
25,5	•	•
30,5	•	•
35,5	•	•
40,5	•	•
45,5	•	•
50,5	•	•
55,5	•	•
60,5	•	•
65,5		•
70,5		•
75,5		•
80,5		•
85,5		•
90,5		•
95,5		•
100,5		•

Larger diameters, up to 500,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values (AISI / SAE O2)
Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	V
0,85 - 0,95	0,1 - 0,4	1,8 - 2,2	0 - 0,03	0 - 0,03	0,2 - 0,5	0,05 - 0,2

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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E: sales@abrams-industries.eu

Direct access to our online shop
[PRS]
www.premium-steel.eu/O2-6
[PRS/BA]
www.premium-steel.eu/O2-7

Technical properties
Alloyed oil hardener with focus on cold work; can be used for a wide range of applications: full hardenability, high degree of dimensional stability, good cutting power and good toughness. Its technical properties and its applications are similar to those of AISI / SAE O1. Working hardness: 57-62 HRC.

Applications
Blanking and stamping tools (up to 6 mm thickness), shear knives, threading tools, thread dies, reamers, chasers, measuring tools, plastic moulds, rubber moulds, calibres, guide rails, dies, punches, woodworking tools, machine knives.

AISI / SAE O2 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/O2

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

PRECISION ROUND STEEL WITHOUT MACHINING ALLOWANCE – ISO h8, h9, h11

ABRAMS!®
PREMIUM STEEL

PREMIUM 1.2826 – AISI / SAE 1.2826 (60MnSiCr4)

Precision round steel without machining allowance [PRS]
Specification: bright finely peeled, ISO h11

Ø [mm]	LENGTH [mm] 1.000 Available dimensions [•]
18,0	●
22,0	●
23,0	●
24,0	●
26,0	●
27,0	●
28,0	●
30,0	●
33,0	●
35,0	●
36,0	●
38,0	●
40,0	●
43,0	●
45,0	●
48,0	●
50,0	●
52,0	●
54,0	●
58,0	●
60,0	●

Precision round steel [PRS/BA]
Specification: peeled / rough-turned

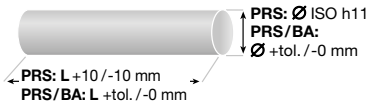
Ø [mm]	LENGTH [mm] 1.000 Available dimensions [•]
62,0	●
66,0	●
70,0	●
72,0	●
75,0	●
80,0	●
85,0	●
90,0	●
92,0	●
95,0	●
100,0	●

Larger diameters, up to 400,0 mm, and different lengths (e.g. round blanks) available on request!

Technical properties
Cold work steel with excellent wear resistance, high toughness and excellent spring properties when tempered.
Working hardness: 57-60 HRC.

Applications
Collet chucks, split chucks, dies (small quantities), hot cutting tools, trimming tools, ejectors, press plates, cold bending tools, shear knives, punches, screwdrivers, drifts, mandrels, centre punches.

Tolerances



Standard values
Delivery condition: maximum 220 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,58 - 0,65	0,8 - 1,0	0,8 - 1,2	0 - 0,03	0 - 0,03	0,2 - 0,4

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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[PRS]
www.premium-steel.eu/2826-6
[PRS/BA]
www.premium-steel.eu/2826-7

AISI / SAE 1.2826 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2826

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

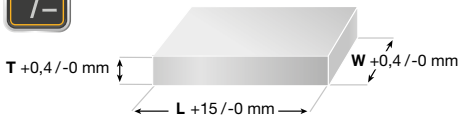
PREMIUM 1.2767 – AISI / SAE 6F7 (45NiCrMo16)

Precision flat steel with machining allowance [PFS/BA]
Length: 500 mm

WIDTH	THICKNESS [mm]																			
	4,2	5,2	6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	63,3	70,3	80,3	90,3	100,3
	Available dimensions [■]																			
10,3	■	■	■	■	■															
12,3	■	■	■	■	■	■														
15,3	■	■	■	■	■	■	■													
16,3	■	■	■	■	■	■		■												
20,3	■	■	■	■	■	■	■	■	■											
25,3	■	■	■	■	■	■	■	■	■	■										
30,3	■	■	■	■	■	■	■	■	■	■	■									
32,3	■	■	■	■	■	■	■	■	■	■	■	■								
40,3	■	■	■	■	■	■	■	■	■	■	■	■	■							
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■						
60,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
63,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
70,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
90,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
125,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
150,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
300,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
500 *					■	■	■		■	■	■		■	■						

* Width and length sawn/black with +tol./-0 mm

Tolerances



Standard values

Delivery condition: maximum 260 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,4 - 0,5	0,1 - 0,4	0,2 - 0,5	0 - 0,03	0 - 0,03	1,2 - 1,5	0,15 - 0,35	3,8 - 4,3

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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Direct access to our online shop

www.premium-steel.eu/6F7-3

Technical properties

Steel grade with focus on cold work, high toughness (nickel content), good through-hardenability (even for large cross-sections), as well as high impact strength and pressure resistance. Polishable, etchable and erodible. For very special purity and homogeneousness we recommend AISI / SAE 6F7 ESR. Working hardness: 50-54 HRC.

Applications

Cutting tools, cutlery punches, embossing tools, bending tools, cold hobbing tools, pressure bars, billet shear knives, cold shear knives, plastic moulds, hot press tools, light metal processing, heavy metal processing, drawing jaws, reinforcements.

AISI / SAE 6F7 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/6F7

via smartphone/tablet:

PREMIUM 1.2767 – AISI / SAE 6F7 (45NiCrMo16)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]																			
	4,2	5,2	6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	63,3	70,3	80,3	90,3	100,3
	Available dimensions [■]																			
10,3	■	■	■	■	■															
12,3	■	■	■	■	■	■														
15,3							■													
16,3	■	■	■	■	■	■		■												
20,3	■	■	■	■	■	■	■	■	■											
25,3	■	■	■	■	■	■	■	■	■	■										
30,3	■	■	■	■	■	■	■	■	■	■	■									
32,3	■	■	■	■	■	■	■	■	■	■	■	■								
40,3	■	■	■	■	■	■	■	■	■	■	■	■	■							
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■						
60,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
63,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
70,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
90,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
125,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
150,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
300,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
500 *					■	■	■		■	■	■		■	■						

* Width and length sawn/black with +tol./-0 mm

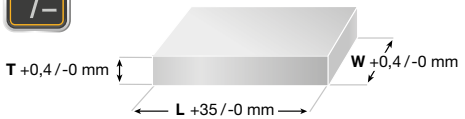
Technical properties

Steel grade with focus on cold work, high toughness (nickel content), good through-hardenability (even for large crosssections), as well as high impact strength and pressure resistance. Polishable, etchable and erodible. For very special purity and homogeneousness we recommend AISI / SAE 6F7 ESR. Working hardness: 50-54 HRC.

Applications

Cutting tools, cutlery punches, embossing tools, bending tools, cold hobbing tools, pressure bars, billet shear knives, cold shear knives, plastic moulds, hot press tools, light metal processing, heavy metal processing, drawing jaws, reinforcements.

Tolerances



Standard values

Delivery condition: maximum 260 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,4 - 0,5	0,1 - 0,4	0,2 - 0,5	0 - 0,03	0 - 0,03	1,2 - 1,5	0,15 - 0,35	3,8 - 4,3

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Direct access to our online shop

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AISI / SAE 6F7 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/6F7

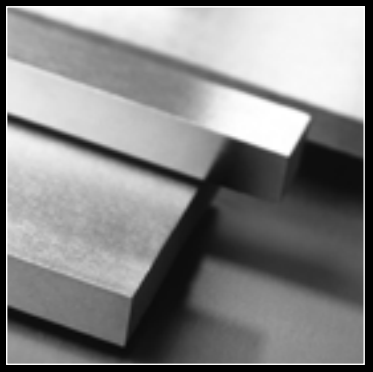
via smartphone / tablet:

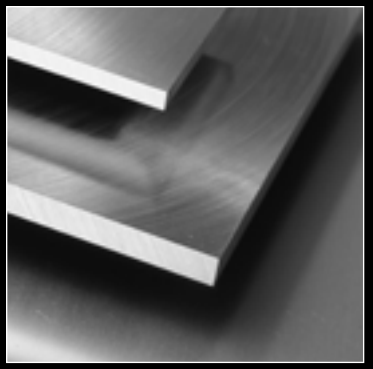
NAVIGATION/ STEEL GRADES

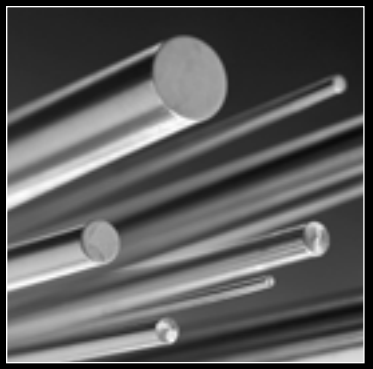
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

back to the previous page

next page







70 STEEL GRADES IN 32.629 STANDARD DIMENSIONS AVAILABLE FROM STOCK!

ABRAMS!®
PREMIUM STEEL

PREMIUM 1.2767 – AISI / SAE 6F7 (45NiCrMo16)

Precision round steel without machining allowance [PRS]
Specification: bright ground, ISO h8

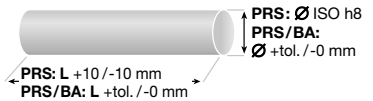
Ø [mm]	LENGTH [mm] 1.000
	Available dimensions [•]
10,0	●
12,0	●
15,0	●
20,0	●
25,0	●

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
10,5	●	●
20,5	●	●
25,5	●	●
30,5	●	●
35,5	●	●
40,5	●	●
45,5	●	●
50,5	●	●
55,5	●	●
60,5	●	●
65,5		●
70,5		●
75,5		●
80,5		●
85,5		●
90,5		●
95,5		●
100,5		●

Larger diameters, up to 500,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 260 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,4 - 0,5	0,1 - 0,4	0,2 - 0,5	0 - 0,03	0 - 0,03	1,2 - 1,5	0,15 - 0,35	3,8 - 4,3

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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Direct access to our online shop
[PRS]
www.premium-steel.eu/6F7-6
[PRS/BA]
www.premium-steel.eu/6F7-7

Technical properties
Steel grade with focus on cold work, high toughness (nickel content), good through-hardenability (even for large crosssections), as well as high impact strength and pressure resistance. Polishable, etchable and erodible.
Working hardness: 50-54 HRC.

Applications
Cutting tools, cutlery punches, embossing tools, bending tools, cold hobbing tools, pressure bars, billet shear knives, cold shear knives, plastic moulds, hot press tools, light metal processing, heavy metal processing, drawing jaws, reinforcements.

AISI / SAE 6F7 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/6F7

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

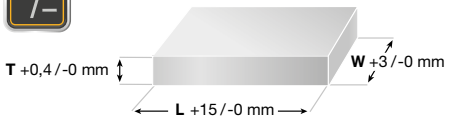
1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

PREMIUM 1.2767 ESU – AISI / SAE 6F7 ESR (45NiCrMo16)

€co-Präz® 300 [€co]
Length: 300 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 260 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,4 - 0,5	0,1 - 0,4	0,2 - 0,5	0 - 0,03	0 - 0,03	1,2 - 1,5	0,15 - 0,35	3,8 - 4,3

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/6F7ESR-3-5

Technical properties

Steel grade with focus on cold work, high toughness (nickel content), good through-hardenability (even for large crosssections), as well as high impact strength and pressure resistance. Polishable, etchable and erodible. For very special purity and homogeneousness we recommend AISI / SAE 6F7 ESR. Working hardness: 50-54 HRC.

Applications

Cutting tools, cutlery punches, embossing tools, bending tools, cold hobbing tools, pressure bars, billet shear knives, cold shear knives, plastic moulds, hot press tools, light metal processing, heavy metal processing, drawing jaws, reinforcements.

AISI / SAE 6F7 ESR – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/6F7ESR

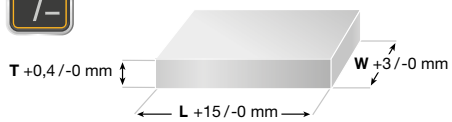
via smartphone / tablet:

PREMIUM 1.2767 ESU – AISI / SAE 6F7 ESR (45NiCrMo16)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 260 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,4 - 0,5	0,1 - 0,4	0,2 - 0,5	0 - 0,03	0 - 0,03	1,2 - 1,5	0,15 - 0,35	3,8 - 4,3

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/6F7ESR-5-5

Technical properties

Steel grade with focus on cold work, high toughness (nickel content), good through-hardenability (even for large crosssections), as well as high impact strength and pressure resistance. Polishable, etchable and erodible. For very special purity and homogeneousness we recommend AISI / SAE 6F7 ESR. Working hardness: 50-54 HRC.

Applications

Cutting tools, cutlery punches, embossing tools, bending tools, cold hobbing tools, pressure bars, billet shear knives, cold shear knives, plastic moulds, hot press tools, light metal processing, heavy metal processing, drawing jaws, reinforcements.

AISI / SAE 6F7 ESR – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/6F7ESR

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

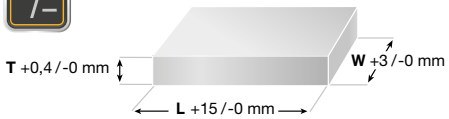
1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

PREMIUM 1.2738 – AISI / SAE P20+Ni (40CrMnNiMo8-6-4)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]																
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3	150,3
	Available dimensions [■]																
33	■	■	■	■	■	■	■										
43	■	■	■	■	■	■	■	■									
53	■	■	■	■	■	■	■	■	■								
63	■	■	■	■	■	■	■	■	■	■							
73	■	■	■	■	■	■	■	■	■	■	■						
83	■	■	■	■	■	■	■	■	■	■	■	■					
93	■	■	■	■	■	■	■	■	■	■	■	■	■				
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,35 - 0,45	0,2 - 0,4	1,3 - 1,6	0 - 0,03	0 - 0,03	1,8 - 2,1	0,15 - 0,25	0,9 - 1,2

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/P20Ni-5

Technical properties

Steel grade with focus on plastic mould making; nickel additives for a better through-hardenability (constant strength), also for thicknesses > 400 mm. Low sulphur steel and therefore polishable and grainable. Working hardness: approx. 32 HRC (delivery condition: quenched and tempered) up to 50 HRC.

Applications

Plastic moulds, moulding frames, die casting moulds, dies, forging tools, metal extrusion tools, tube presses, hydroforming tools.

AISI / SAE P20+Ni – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/P20Ni

via smartphone/tablet:

back to the previous page

next page

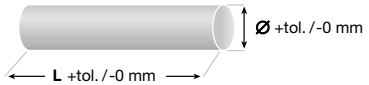
PREMIUM 1.2738 – AISI / SAE P20+Ni (40CrMnNiMo8-6-4)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20,5	•	•
25,5	•	•
30,5	•	•
35,5	•	•
40,5	•	•
45,5	•	•
50,5	•	•
55,5	•	•
60,5	•	•
65,5		•
70,5		•
75,5		•
80,5		•
85,5		•
90,5		•
100,5		•

Larger diameters, up to 655,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,35 - 0,45	0,2 - 0,4	1,3 - 1,6	0 - 0,03	0 - 0,03	1,8 - 2,1	0,15 - 0,25	0,9 - 1,2

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/P20Ni-7

Technical properties

Steel grade with focus on plastic mould making; nickel additives for a better through-hardenability (constant strength), also for thicknesses > 400 mm. Low sulphur steel and therefore polishable and grainable. Working hardness: approx. 32 HRC (delivery condition: quenched and tempered) up to 50 HRC.

Applications

Plastic moulds, moulding frames, die casting moulds, dies, forging tools, metal extrusion tools, tube presses, hydroforming tools.

AISI / SAE P20+Ni – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/P20Ni

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

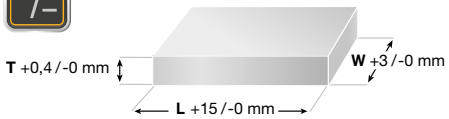
1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

PREMIUM 1.2714 – AISI / SAE L6 (55NiCrMoV7)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]																
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3	150,3
	Available dimensions [■]																
33	■	■	■	■	■	■	■										
43	■	■	■	■	■	■	■	■									
53	■	■	■	■	■	■	■	■	■								
63	■	■	■	■	■	■	■	■	■	■							
73	■	■	■	■	■	■	■	■	■	■	■						
83	■	■	■	■	■	■	■	■	■	■	■	■					
93	■	■	■	■	■	■	■	■	■	■	■	■	■				
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 250 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V
0,5 - 0,6	0,1 - 0,4	0,6 - 0,9	0 - 0,03	0 - 0,03	0,8 - 1,2	0,35 - 0,55	1,5 - 1,8	0,05 - 0,15

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/L6-5

Technical properties

Hot work steel that can be used for a wide range of applications. With good through-hardenability, tempering resistance, toughness, pressure and heat resistance. Delivery condition: annealed. Working hardness: approx. 40-54 HRC.

Applications

Forging dies, slides, punch heads, extruding stamps, press tools, hot shear knives, extrusion press tools, die holders, support tools, tool holders, pressure plates, armoured die plates.

AISI / SAE L6 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/L6

via smartphone/tablet:

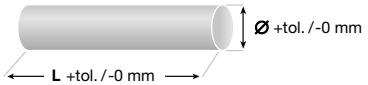
PREMIUM 1.2714 – AISI / SAE L6 (55NiCrMoV7)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20,5	●	●
25,5	●	●
30,5	●	●
35,5	●	●
40,5	●	●
45,5	●	●
50,5	●	●
55,5	●	●
60,5	●	●
65,5		●
70,5		●
75,5		●
80,5		●
85,5		●
90,5		●
95,5		●
100,5		●

Larger diameters, up to 905,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 250 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V
0,5 - 0,6	0,1 - 0,4	0,6 - 0,9	0 - 0,03	0 - 0,03	0,8 - 1,2	0,35 - 0,55	1,5 - 1,8	0,05 - 0,15

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/L6-7

Technical properties
Hot work steel that can be used for a wide range of applications. With good through-hardenability, tempering resistance, toughness, pressure and heat resistance. Delivery condition: annealed. Working hardness: approx. 40-54 HRC.

Applications
Forging dies, slides, punch heads, extruding stamps, press tools, hot shear knives, extrusion press tools, die holders, support tools, tool holders, pressure plates, armoured die plates.

AISI / SAE L6 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/L6

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

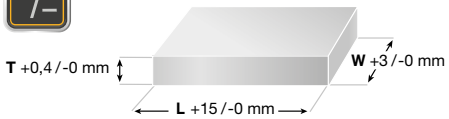
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

PREMIUM 1.2714+QT – AISI / SAE L6+QT (55NiCrMoV7+QT)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]																
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3	150,3
	Available dimensions [■]																
33	■	■	■	■	■	■	■										
43	■	■	■	■	■	■	■	■									
53	■	■	■	■	■	■	■	■	■								
63	■	■	■	■	■	■	■	■	■	■							
73	■	■	■	■	■	■	■	■	■	■	■						
83	■	■	■	■	■	■	■	■	■	■	■	■					
93	■	■	■	■	■	■	■	■	■	■	■	■	■				
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 400 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V
0,5 - 0,6	0,1 - 0,4	0,6 - 0,9	0 - 0,03	0 - 0,03	0,8 - 1,2	0,35 - 0,55	1,5 - 1,8	0,05 - 0,15

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/L6QT-5

Technical properties

Hot work steel that can be used for a wide range of applications. With good through-hardenability, tempering resistance, toughness, pressure and heat resistance. Delivery condition: tempered. Working hardness: approx. 40 HRC (delivery condition) up to 54 HRC.

Applications

Forging dies, slides, punch heads, extruding stamps, press tools, hot shear knives, extrusion press tools, die holders, support tools, tool holders, pressure plates, armoured die plates.

AISI / SAE L6+QT – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/L6QT

via smartphone/tablet:

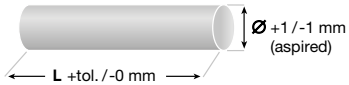
PREMIUM 1.2714+QT – AISI / SAE L6+QT (55NiCrMoV7+QT)

Round steel [RS]
Specification: black

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20	•	•
25	•	•
30	•	•
35	•	•
40	•	•
50	•	•
55	•	•
60	•	•
65		•
70		•
80		•
85		•
90		•
100		•

Larger diameters, up to 705 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 400 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V
0,5 - 0,6	0,1 - 0,4	0,6 - 0,9	0 - 0,03	0 - 0,03	0,8 - 1,2	0,35 - 0,55	1,5 - 1,8	0,05 - 0,15

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/L6QT-8

Technical properties

Hot work steel that can be used for a wide range of applications. With good through-hardenability, tempering resistance, toughness, pressure and heat resistance. Delivery condition: tempered. Working hardness: approx. 40 HRC (delivery condition) up to 54 HRC.

Applications

Forging dies, slides, punch heads, extruding stamps, press tools, hot shear knives, extrusion press tools, die holders, support tools, tool holders, pressure plates, armoured die plates.

AISI / SAE L6+QT – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/L6QT

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

SUPERIORITY !

ABRAMS! PREMIUM STEEL®

PREMIUM 1.2709 ESU – AISI / SAE 1.2709 ESR (X3NiCoMoTi18-9-5)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
15,5	•	•
20,5	•	•
25,5	•	•
30,5	•	•
40,5	•	•
45,5	•	•
50,5	•	•
60,5	•	•
70,5		•
80,5		•
100,5		•

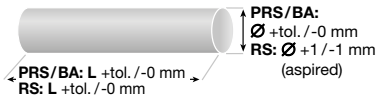
Larger diameters, up to 120,5 mm and different lengths (e.g. round blanks) available on request!

Round steel [RS]
Specification: black

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
15	•	•
20	•	•
25	•	•
30	•	•
40	•	•
45	•	•
50	•	•
60	•	•
65		•
70		•
80		•
90		•
110		•

Larger diameters, up to 180 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	Ti	Co
0 - 0,03	0 - 0,1	0 - 0,15	0 - 0,01	0 - 0,01	0 - 0,25	4,5 - 5,2	17,0 - 19,0	0,8 - 1,2	8,5 - 10,0

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

[PRS/BA]
www.premium-steel.eu/2709ESR-7
[RS]
www.premium-steel.eu/2709ESR-8

Technical properties

Ultra-high strength tool steel with excellent toughness, high yield point and high tensile strength. Easy heat treatment at low temperatures. Good dimensional stability and low distortion. Good machinability when hardened.
Working hardness: 51-56 HRC.

Applications

Slides, gear cutting tools, cold heading tools, embossing tools, press dies, hot press molds and tools, tool holders, cutting punches, die casting moulds (for light metal alloys), plastic moulds, reinforcements, light metal processing, shear knives, nozzles, distributor pins, cores.

AISI / SAE 1.2709 ESR – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2709ESR

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

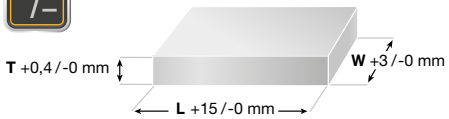
1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

PREMIUM 1.2550 – AISI / SAE S1 (60WCrV8)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	V	W
0,55 - 0,65	0,7 - 1,0	0,15 - 0,45	0 - 0,03	0 - 0,03	0,9 - 1,2	0,1 - 0,2	1,7 - 2,2

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/S1-5

Technical properties

Steel grade with focus on cold work, with full hardenability, excellent toughness, dimensional stability and impact strength.
Working hardness: 56 - 60 HRC.

Applications

Blanking tools, dies, punches, forming dies, embossing tools, coining tools, tableting punches, plug-in tools, trimming tools, cold shear knives, riveting pins, hand chisels, pneumatic chisels, centre punches, ejectors, woodworking tools.

AISI / SAE S1 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/S1

via smartphone / tablet:

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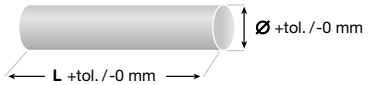
PREMIUM 1.2550 – AISI / SAE S1 (60WCrV8)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20,5	•	•
22,5	•	•
25,5	•	•
28,5	•	•
30,5	•	•
35,5	•	•
40,5	•	•
45,5	•	•
50,5	•	•
55,5	•	•
60,5	•	•
65,5		•
70,5		•
75,5		•
80,5		•
85,5		•
90,5		•
100,5		•

Larger diameters, up to 180,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	V	W
0,55 - 0,65	0,7 - 1,0	0,15 - 0,45	0 - 0,03	0 - 0,03	0,9 - 1,2	0,1 - 0,2	1,7 - 2,2

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us
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E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/S1-7

Technical properties
Steel grade with focus on cold work, with full hardenability, excellent toughness, dimensional stability and impact strength.
Working hardness: 56 - 60 HRC.

Applications
Blanking tools, dies, punches, forming dies, embossing tools, coining tools, tableting punches, plug-in tools, trimming tools, cold shear knives, riveting pins, hand chisels, pneumatic chisels, centre punches, ejectors, woodworking tools.

AISI / SAE S1 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/S1

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

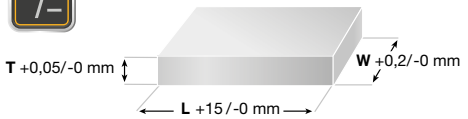
ABRAMS! PREMIUM STEEL®

PREMIUM 1.2436 – AISI / SAE D6 (X210CrW12)

Precision flat steel without machining allowance, DIN 59350 [PFS]
Length: 500 mm

	THICKNESS [mm]									
	2,0	3,0	4,0	5,0	6,0	8,0	10,0	12,0	15,0	20,0
WIDTH	Available dimensions [■]									
20,0	■	■	■	■	■	■	■	■	■	
25,0	■	■	■	■	■	■	■	■	■	■
30,0	■	■	■	■	■	■	■	■	■	■
40,0	■	■	■	■	■	■	■	■	■	■
50,0	■	■	■	■	■	■	■	■	■	■
60,0	■	■	■	■	■	■	■	■	■	■
80,0	■	■	■	■	■	■	■	■	■	■
100,0	■	■	■	■	■	■	■	■	■	■
125,0	■	■	■	■	■	■	■	■	■	■
150,0	■	■	■	■	■	■	■	■	■	■
200,0	■	■	■	■	■	■	■	■		

Tolerances



Standard values

Delivery condition: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	W
2,0 - 2,3	0,1 - 0,4	0,3 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	0,6 - 0,8

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/D6-1

Technical properties

Cold work steel with maximum wear resistance and cutting power (for plates: thickness up to 4 mm). Full hardenability, good dimensional stability, but medium toughness. Due to its tungsten content this steel grade has a higher tempering resistance and higher wear permanence compared to AISI / SAE 3 mod. Working hardness: 59-63 HRC.

Applications

Blanking tools, stamping tools, embossing tools, scraping tools, trimming tools, woodworking tools, drawing tools, press tools, stone moulds, sintered tools, machine knives, hammer cores, ring rollers, thread rolling dies, plastic moulds.

AISI / SAE D6 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/D6

via smartphone / tablet:

back to the previous page

next page

NAVIGATION/ STEEL GRADES

1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

NAVIGATION/ STEEL GRADES

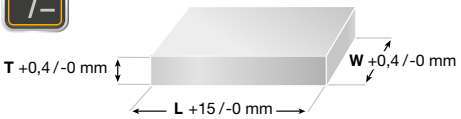
1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

PREMIUM 1.2436 – AISI / SAE D6 (X210CrW12)

Precision flat steel with machining allowance [PFS/BA]
Length: 500 mm

WIDTH	THICKNESS [mm]													
	2,2	3,2	4,2	5,2	6,2	8,2	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3
	Available dimensions [■]													
8,2						■								
10,3	■	■	■	■	■	■	■							
12,3								■						
15,3	■	■	■	■	■	■	■	■	■					
20,3	■	■	■	■	■	■	■	■	■	■				
25,3	■	■	■	■	■	■	■	■	■	■	■			
30,3	■	■	■	■	■	■	■	■	■	■	■	■		
40,3	■	■	■	■	■	■	■	■	■	■	■	■	■	
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
60,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
125,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
300,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	W
2,0 - 2,3	0,1 - 0,4	0,3 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	0,6 - 0,8

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/D6-3

Technical properties

Cold work steel with maximum wear resistance and cutting power (for plates: thickness up to 4 mm). Full hardenability, good dimensional stability, but medium toughness. Due to its tungsten content this steel grade has a higher tempering resistance and higher wear permanence compared to AISI / SAE 3 mod. Working hardness: 59-63 HRC

Applications

Blanking tools, stamping tools, embossing tools, scraping tools, trimming tools, woodworking tools, drawing tools, press tools, stone moulds, sintered tools, machine knives, hammer cores, ring rollers, thread rolling dies, plastic moulds.

AISI / SAE D6 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/D6

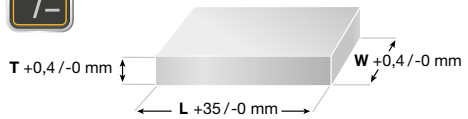
via smartphone/tablet:

PREMIUM 1.2436 – AISI / SAE D6 (X210CrW12)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]															
	2,2	3,2	4,2	5,2	6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3
	Available dimensions [■]															
8,2						■										
10,3	■	■	■	■	■	■	■									
12,3								■								
15,3	■	■	■	■	■	■	■	■	■							
16,3										■						
20,3	■	■	■	■	■	■	■	■	■		■					
25,3	■	■	■	■	■	■	■	■	■	■	■	■				
30,3	■	■	■	■	■	■	■	■	■	■	■	■	■			
32,3	■	■	■	■	■	■	■	■	■	■	■	■		■		
40,3	■	■	■	■	■	■	■	■	■	■	■	■	■		■	
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
60,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
63,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
125,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
160,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
175,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
300,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
315,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	W
2,0 - 2,3	0,1 - 0,4	0,3 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	0,6 - 0,8

If you need customised dimensions -

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Technical properties

Cold work steel with maximum wear resistance and cutting power (for plates: thickness up to 4 mm). Full hardenability, good dimensional stability, but medium toughness. Due to its tungsten content this steel grade has a higher tempering resistance and higher wear permanence compared to AISI / SAE 3 mod.
Working hardness: 59-63 HRC

Applications

Blanking tools, stamping tools, embossing tools, scraping tools, trimming tools, woodworking tools, drawing tools, press tools, stone moulds, sintered tools, machine knives, hammer cores, ring rollers, thread rolling dies, plastic moulds.

AISI / SAE D6 – all at a glance!

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via smartphone / tablet:

back to the previous page

next page

NAVIGATION/ STEEL GRADES

1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

NAVIGATION/ STEEL GRADES

1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

PREMIUM 1.2436 – AISI / SAE D6 (X210CrW12)

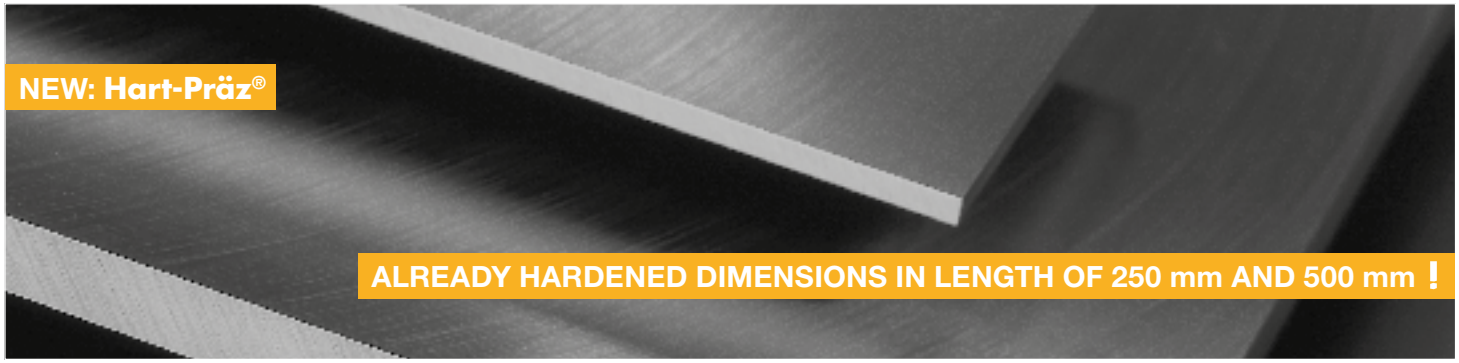
Hart-Präz® 250 [Hart]
Length: 250 mm

WIDTH	THICKNESS [mm]												
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2
250	Available dimensions [■]												
	■	■	■	■	■	■	■	■	■	■	■	■	■

Hart-Präz® 500 [Hart]
Length: 500 mm

WIDTH	THICKNESS [mm]												
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2
250	Available dimensions [■]												
	■	■	■	■	■	■	■	■	■	■	■	■	■

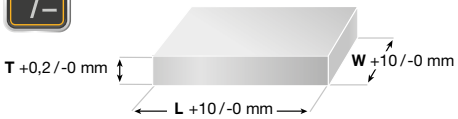
Hardened dimensions are delivered with approx. 59 HRC, at least 2x tempered.



Technical properties
Cold work steel with maximum wear resistance and cutting power (for plates: thickness up to 4 mm). Full hardenability, good dimensional stability, but medium toughness. Due to its tungsten content this steel grade has a higher tempering resistance and higher wear permanence compared to AISI / SAE 3 mod.
Working hardness: 59-63 HRC

Applications
Blanking tools, stamping tools, embossing tools, scraping tools, trimming tools, woodworking tools, drawing tools, press tools, stone moulds, sintered tools, machine knives, hammer cores, ring rollers, thread rolling dies, plastic moulds.

Tolerances



Standard values
Lieferzustand: ca. 59 HRC
Chemical composition:

C	Si	Mn	P	S	Cr	W
2,0 - 2,3	0,1 - 0,4	0,3 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	0,6 - 0,8

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
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via smartphone/tablet:

PREMIUM 1.2436 – AISI / SAE D6 (X210CrW12)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

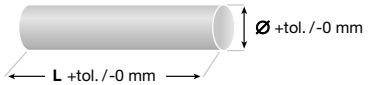
	LENGTH [mm]	
	500	1.000
Ø [mm]	Available dimensions [•]	
10,5	•	•
15,5	•	•
20,5	•	•
25,5	•	•
30,5	•	•
35,5	•	•
40,5	•	•
45,5	•	•
50,5	•	•
55,5	•	•
60,5	•	•
65,5		•
70,5		•
75,5		•
80,5		•
85,5		•
90,5		•
95,5		•
100,5		•

Larger diameters, up to 400,5 mm, and different lengths (e.g. round blanks) available on request!

Technical properties
Cold work steel with maximum wear resistance and cutting power (for plates: thickness up to 4 mm). Full hardenability, good dimensional stability, but medium toughness. Due to its tungsten content this steel grade has a higher tempering resistance and higher wear permanence compared to AISI / SAE 3 mod.
Working hardness: 59-63 HRC

Applications
Blanking tools, stamping tools, embossing tools, scraping tools, trimming tools, woodworking tools, drawing tools, press tools, stone moulds, sintered tools, machine knives, hammer cores, ring rollers, thread rolling dies, plastic moulds.

Tolerances



Standard values
Delivery condition: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	W
2,0 - 2,3	0,1 - 0,4	0,3 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	0,6 - 0,8

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

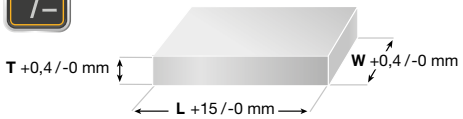
PREMIUM 1.2379 – AISI / SAE D2 (X153CrMoV12)

Precision flat steel with machining allowance [PFS/BA]
Length: 500 mm

WIDTH	THICKNESS [mm]																			
	2,2	3,2	4,2	5,2	6,2	8,2	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	63,3	70,3	80,3	90,3	100,3
	Available dimensions [■]																			
6,2					■															
8,2						■														
10,3	■	■	■	■	■	■	■													
12,3								■												
15,3	■	■	■	■	■	■	■	■	■											
20,3	■	■	■	■	■	■	■	■	■	■										
25,3	■	■	■	■	■	■	■	■	■	■	■									
30,3	■	■	■	■	■	■	■	■	■	■	■	■								
40,3	■	■	■	■	■	■	■	■	■	■	■	■	■							
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■						
60,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■						
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
125,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
300,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
500 *							■	■	■	■	■	■	■	■	■					

* Width and length sawn/black with +tol./-0 mm

Tolerances



Standard values

Delivery condition: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
1,45 - 1,6	0,1 - 0,6	0,2 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	0,7 - 1,0	0,7 - 1,0

If you need customised dimensions -

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On request - according to your needs!

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Technical properties

Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness even for a cold work steel.
Working hardness: 57-62 HRC.

Applications

Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic moulds.

AISI / SAE D2 – all at a glance!

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via smartphone/tablet:

PREMIUM 1.2379 – AISI / SAE D2 (X153CrMoV12)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]																			
	2,2	3,2	4,2	5,2	6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	63,3	70,3	80,3
	Available dimensions [■]																			
6,2					■															
8,2						■														
10,3	■	■	■	■	■	■	■													
12,3								■												
15,3	■	■	■	■	■	■	■	■	■											
16,3										■										
20,3	■	■	■	■	■	■	■	■	■	■	■									
25,3	■	■	■	■	■	■	■	■	■	■	■	■								
30,3	■	■	■	■	■	■	■	■	■	■	■	■	■							
32,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■						
40,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
60,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
63,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■		
70,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
90,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
125,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
160,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
175,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
180,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
300,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
350,3							■	■	■	■	■	■	■	■	■	■	■			
400,3							■	■	■	■	■	■	■	■	■	■				
500 *							■	■	■		■	■	■	■	■	■	■			

* Width and length sawn/black with +tol./-0 mm

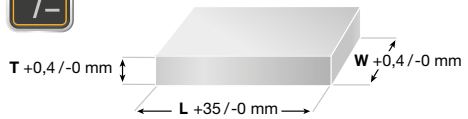
Technical properties

Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness even for a cold work steel.
Working hardness: 57-62 HRC.

Applications

Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic moulds.

Tolerances



Standard values

Delivery condition: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
1,45 - 1,6	0,1 - 0,6	0,2 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	0,7 - 1,0	0,7 - 1,0

If you need customised dimensions -

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On request - according to your needs!

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NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

PREMIUM 1.2379 – AISI / SAE D2 (X153CrMoV12)

Precision flat steel with machining allowance [PFS/BA]
Length: 200 mm

WIDTH	THICKNESS [mm] 20,3	25,3	30,3	40,3	50,3	60,3	80,3	100,3
	Available dimensions [■]							
100,3	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■

Precision flat steel with machining allowance [PFS/BA]
Length: 300 mm

WIDTH	THICKNESS [mm] 20,3	25,3	30,3	40,3	50,3	60,3	80,3	100,3
	Available dimensions [■]							
100,3	47,90	57,90	67,90	85,90	105,90	120,90	166,90	187,90
150,3	75,90	85,90	100,90	125,90	153,90	182,90	243,90	283,90
200,3	104,90	122,90	141,90	166,90	210,90	250,90	333,90	366,90
250,3	127,90	147,90	170,90	204,90	258,90	302,90	356,90	406,90
300,3	147,90	177,90	197,90	244,90	307,90	364,90	474,90	520,90

SHORTER LENGTH: 200 mm, 300 mm, 400 mm and 600 mm !

Precision flat steel with machining allowance [PFS/BA]
Length: 400 mm

WIDTH	THICKNESS [mm] 20,3	25,3	30,3	40,3	50,3	60,3	80,3	100,3
	Available dimensions [■]							
100,3	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■
300,3	■	■	■	■	■	■	■	■
400,3	■	■	■	■	■	■		

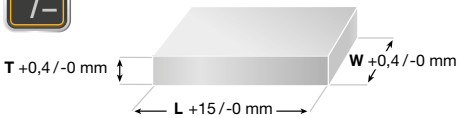
Precision flat steel with machining allowance [PFS/BA]
Length: 600 mm

WIDTH	THICKNESS [mm] 20,3	25,3	30,3	40,3	50,3	60,3	80,3	100,3
	Available dimensions [■]							
100,3	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■
300,3	■	■	■	■	■	■	■	■
400,3	■	■	■	■	■	■		

Technical properties
Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness even for a cold work steel.
Working hardness: 57-62 HRC.

Applications
Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic moulds.

Tolerances



Standard values
Delivery condition: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
1,45 - 1,6	0,1 - 0,6	0,2 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	0,7 - 1,0	0,7 - 1,0

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www.premium-steel.eu/D2-400
www.premium-steel.eu/D2-600

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PREMIUM 1.2379 – AISI / SAE D2 (X153CrMoV12)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]									
	10,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3
	Available dimensions [■]									
103	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■
343	■	■	■	■	■	■	■	■	■	■
353	■	■	■	■	■	■	■	■	■	■
363	■	■	■	■	■	■	■	■	■	■
383	■	■	■	■	■	■	■	■	■	■
403	■	■	■	■	■	■	■	■	■	■
423	■	■	■	■	■	■	■	■	■	■
443	■	■	■	■	■	■	■	■	■	■
453	■	■	■	■	■	■	■	■	■	■
463	■	■	■	■	■	■	■	■	■	■
483	■	■	■	■	■	■	■	■	■	■
503	■	■	■	■	■	■	■	■	■	■

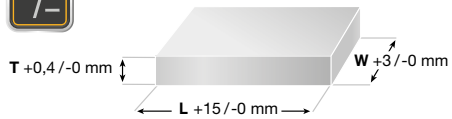
Technical properties

Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness even for a cold work steel.
Working hardness: 57-62 HRC.

Applications

Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic moulds.

Tolerances



Standard values

Delivery condition: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
1,45 - 1,6	0,1 - 0,6	0,2 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	0,7 - 1,0	0,7 - 1,0

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1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
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D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

PREMIUM 1.2379 – AISI / SAE D2 (X153CrMoV12)

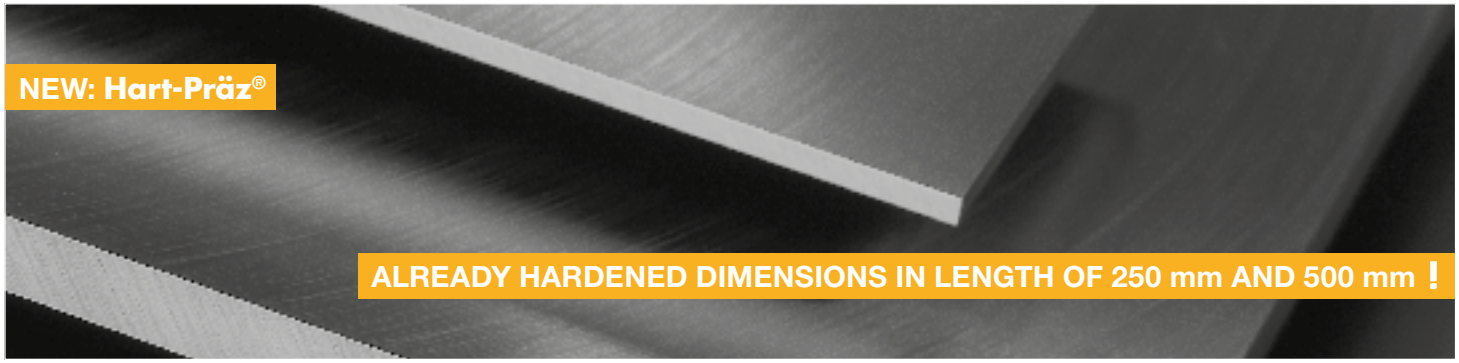
Hart-Präz® 250 [Hart]
Length: 250 mm

	THICKNESS [mm]													
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2	14,2
WIDTH	Available dimensions [■]													
250	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Hart-Präz® 500 [Hart]
Length: 500 mm

	THICKNESS [mm]													
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2	14,2
WIDTH	Available dimensions [■]													
250	■	■	■	■	■	■	■	■	■	■	■	■	■	■

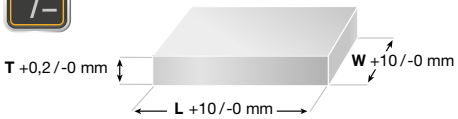
Hardened dimensions are delivered with approx. 57 HRC, at least 2x tempered.



Technical properties
Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness even for a cold work steel.
Working hardness: 57-62 HRC.

Applications
Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic moulds.

Tolerances



Standard values
Delivery condition: approx. 57 HRC
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
1,45 - 1,6	0,1 - 0,6	0,2 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	0,7 - 1,0	0,7 - 1,0

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PREMIUM 1.2379 – AISI / SAE D2 (X153CrMoV12)

Precision round steel without machining allowance [PRS]
Specification: bright ground, ISO h8

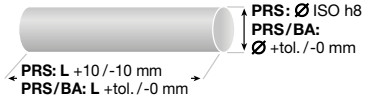
Ø [mm]	LENGTH [mm] 1.000
	Available dimensions [•]
6,0	•
8,0	•
10,0	•
12,0	•
15,0	•
20,0	•
25,0	•

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
10,5	•	•
15,5	•	•
20,5	•	•
25,5	•	•
30,5	•	•
35,5	•	•
40,5	•	•
45,5	•	•
50,5	•	•
55,5	•	•
60,5	•	•
65,5		•
70,5		•
75,5		•
80,5		•
85,5		•
90,5		•
95,5		•
100,5		•

Larger diameters, up to 755,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
1,45 - 1,6	0,1 - 0,6	0,2 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	0,7 - 1,0	0,7 - 1,0

If you need customised dimensions -
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On request - according to your needs!

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[PRS/BA]
www.premium-steel.eu/D2-7

Technical properties
Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness even for a cold work steel.
Working hardness: 57-62 HRC.

Applications
Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic moulds.

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1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
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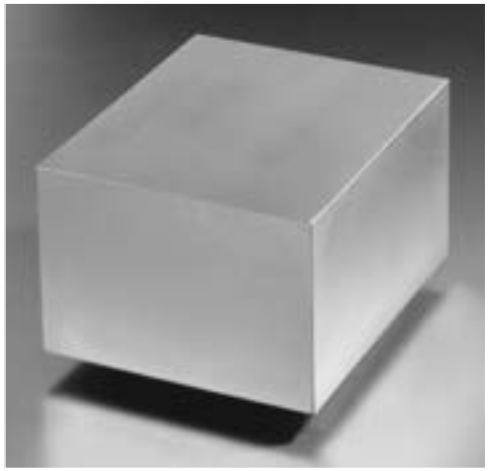
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

PREMIUM 1.2379 – AISI / SAE D2 (X153CrMoV12)

Erosion block/EDM block/annealed [EB]
Specification: all-sides machined (milled/ground)/grain structure is vertically directed in relation to base surface

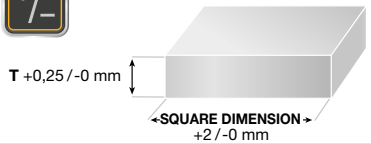
SQUARE	THICKNESS [mm] 15,0	20,0	25,0	30,0	40,0	50,0	60,0	70,0	80,0	90,0	100,0	120,0	150,0
	Available dimensions [■]												
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■
120,3	■	■	■	■	■	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■	■	■	■	■	■
300,3	■	■	■	■	■	■	■	■	■	■	■	■	■



Technical properties
Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness even for a cold work steel.
Working hardness: 57-62 HRC.

Applications
Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic moulds.

Tolerances



Standard values
Delivery condition: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
1,45 - 1,6	0,1 - 0,6	0,2 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	0,7 - 1,0	0,7 - 1,0

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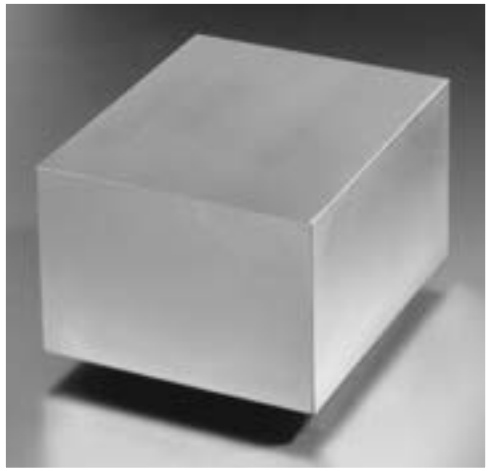
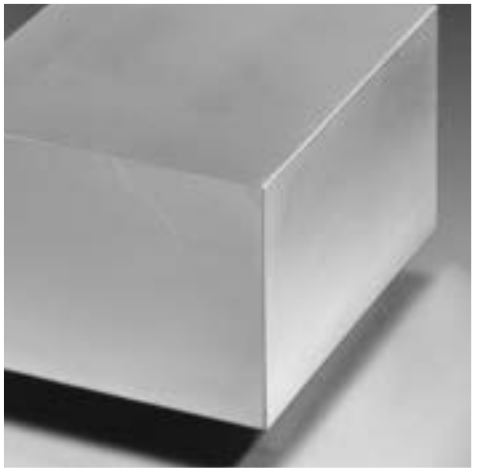
via smartphone/tablet:

PREMIUM 1.2379 – AISI / SAE D2 (X153CrMoV12)

Erosion block/EDM block/hardened [EB]
Specification: all-sides machined (milled/ground)/grain structure is vertically directed in relation to base surface

	THICKNESS [mm]												
SQUARE	15,0	20,0	25,0	30,0	40,0	50,0	60,0	70,0	80,0	90,0	100,0	120,0	150,0
	Available dimensions [■]												
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■
120,3	■	■	■	■	■	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■	■	■	■	■	■
300,3	■	■	■	■	■	■	■	■	■	■	■	■	■

Hardened erosion blocks are tempered at least three times at approx. 61 HRC.

Technical properties
Secondary-hardening, ledeburitic cold work steel, can be used for a wide range of applications. Low distortion, excellent wear resistance and good toughness. Temper-resistant, even at high hardening temperatures. In addition it can be nitrated without any reduction in hardness even for a cold work steel.
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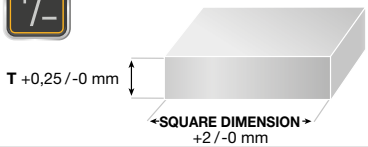
Applications
Blanking tools, precision cutting tools, dies, punches, thread rolling dies, broaches, milling cutters, press tools, shear knives, deep drawing dies, cold rollings, measuring tools, woodworking tools, cold pilger mandrels, plastic moulds.

Tolerances



Standard values
Delivery condition: approx. 61 HRC
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
1,45 - 1,6	0,1 - 0,6	0,2 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	0,7 - 1,0	0,7 - 1,0

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1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

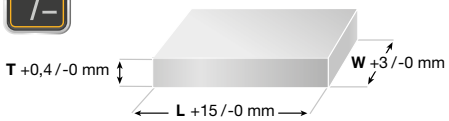
1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

PREMIUM 1.2367 – AISI / SAE 1.2367 (X38CrMoV5-3)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,35 - 0,4	0,3 - 0,5	0,3 - 0,5	0 - 0,03	0 - 0,02	4,8 - 5,2	2,7 - 3,2	0,4 - 0,6

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/2367-5

Technical properties

Hot work steel with excellent toughness, excellent heat resistance and excellent tempering resistance. Good hardenability with high warp-resistance. Can be cooled with water.
Working hardness: 50-54 HRC.

Applications

Dies, die inserts, extrusion presses, hot extrusion tools, die casting tools, slides, press mandrels, intermediate sleeves, die holders, profiling dies, profile mandrels, block receivers, hot shear knives, light metal processing, plastic moulds.

AISI / SAE 1.2367 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2367

via smartphone / tablet:

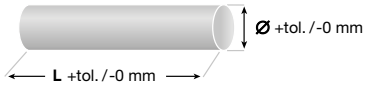
PREMIUM 1.2367 – AISI / SAE 1.2367 (X38CrMoV5-3)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

	LENGTH [mm]	
	500	1.000
Ø [mm]	Available dimensions [•]	
25,5	•	•
30,5	•	•
35,5	•	•
40,5	•	•
45,5	•	•
50,5	•	•
55,5	•	•
60,5	•	•
65,5		•
70,5		•
75,5		•
80,5		•
90,5		•
95,5		•
100,5		•

Larger diameters, up to 450,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,35 - 0,4	0,3 - 0,5	0,3 - 0,5	0 - 0,03	0 - 0,02	4,8 - 5,2	2,7 - 3,2	0,4 - 0,6

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us
T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/2367-7

Technical properties
Hot work steel with excellent toughness, excellent heat resistance and excellent tempering resistance. Good hardenability with high warp-resistance. Can be cooled with water.
Working hardness: 50 - 54 HRC.

Applications
Dies, die inserts, extrusion presses, hot extrusion tools, die casting tools, slides, press mandrels, intermediate sleeves, die holders, profiling dies, profile mandrels, block receivers, hot shear knives, light metal processing, plastic moulds.

AISI / SAE 1.2367 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2367

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

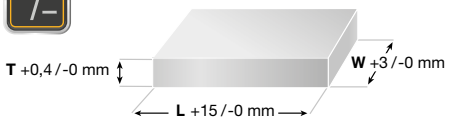
1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

PREMIUM 1.2365 – AISI / SAE H10 (32CrMoV12-28)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,28 - 0,35	0,1 - 0,4	0,15 - 0,45	0 - 0,03	0 - 0,02	2,7 - 3,2	2,5 - 3,0	0,4 - 0,7

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/H10-5

Technical properties

Hot work steel with high toughness, heat resistance and tempering resistance. Air-hardening steel grade with good thermal conductivity. Can be cooled with water. Working hardness: 50 - 52 HRC.

Applications

Extrusion presses, brass casting, press tools, die inserts, die casting moulds, plastic moulds, recipient bushes, pressure dies, press mandrels, tube extrusion mandrels, piecer plugs, press dies, block receivers, screw production, nut production, rivet production, bolts production, hot shear knives.

AISI / SAE H10 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/H10

via smartphone / tablet:

back to the previous page

next page

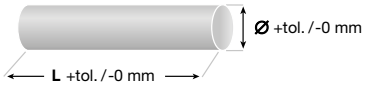
PREMIUM 1.2365 – AISI / SAE H10 (32CrMoV12-28)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
25,5	•	•
30,5	•	•
35,5	•	•
40,5	•	•
45,5	•	•
50,5	•	•
55,5	•	•
60,5	•	•
65,5		•
70,5		•
75,5		•
80,5		•
85,5		•
90,5		•
95,5		•
100,5		•

Larger diameters, up to 350,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,28 - 0,35	0,1 - 0,4	0,15 - 0,45	0 - 0,03	0 - 0,02	2,7 - 3,2	2,5 - 3,0	0,4 - 0,7

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/H10-7

Technical properties

Hot work steel with high toughness, heat resistance and tempering resistance. Air-hardening steel grade with good thermal conductivity. Can be cooled with water. Working hardness: 50 - 52 HRC.

Applications

Extrusion presses, brass casting, press tools, die inserts, die casting moulds, plastic moulds, recipient bushes, pressure dies, press mandrels, tube extrusion mandrels, piecer plugs, press dies, block receivers, screw production, nut production, rivet production, bolts production, hot shear knives.

AISI / SAE H10 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/H10

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

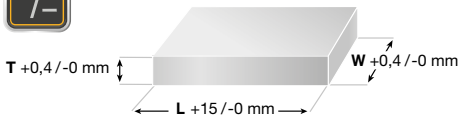
1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

PREMIUM 1.2363 – AISI / SAE A2 (X100CrMoV5-1)

Precision flat steel with machining allowance [PFS/BA]
Length: 500 mm

WIDTH	THICKNESS [mm]																	
	4,2	6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	63,3	70,3	80,3	100,3
	Available dimensions [■]																	
10,3				■														
12,3					■													
16,3							■											
20,3								■										
25,3	■	■	■	■	■	■	■	■	■									
30,3	■	■	■	■	■	■	■	■		■								
32,3	■	■	■	■	■		■	■	■		■							
40,3	■	■	■	■	■	■	■	■	■	■	■	■						
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■					
60,3		■	■	■	■	■		■	■	■		■		■				
63,3		■	■	■	■		■	■	■		■	■	■		■			
80,3		■	■	■	■	■	■	■	■	■	■	■	■		■		■	
100,3		■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■
125,3			■	■	■	■	■	■	■	■	■	■	■		■	■	■	
150,3			■	■	■	■		■	■	■		■			■	■		
160,3			■	■	■		■	■	■		■	■	■		■	■		
200,3				■	■	■	■	■	■	■	■	■	■		■	■		
250,3							■	■	■	■	■	■	■		■	■		
315,3								■	■		■	■	■					
400,3									■		■	■	■					

Tolerances



Standard values

Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,95 - 1,05	0,1 - 0,4	0,4 - 0,8	0 - 0,03	0 - 0,03	4,8 - 5,5	0,9 - 1,2	0,15 - 0,35

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/A2-3

Technical properties

Air hardening cold work steel, good machinability, high wear resistance and improved toughness (reduced occurence of hard carbides with about 5% chromium compared to 12% chromium in ledeburites AISI / SAE D2, AISI / SAE D6, AISI / SAE D3 mod.). Good dimensional stability during heat treatment and easily repairable through welding. Working hardness: 58-62 HRC.

Applications

Blanking tools, stamping tools, dies, punches, trimming tools, cutting tools, thread rolling tools, thread rolling dies, shear knives, circular shear knives, cold pilger mandrels, cold stamping tools, plastic moulds.

AISI / SAE A2 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/A2

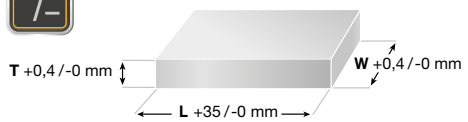
via smartphone/tablet:

PREMIUM 1.2363 – AISI / SAE A2 (X100CrMoV5-1)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]																	
	4,2	6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	63,3	70,3	80,3	100,3
	Available dimensions [■]																	
10,3				■														
12,3					■													
16,3							■											
20,3								■										
25,3	■	■	■	■	■	■	■	■	■									
30,3	■	■	■	■	■	■	■	■		■								
32,3	■	■	■	■	■		■	■	■		■							
40,3	■	■	■	■	■	■	■	■	■	■	■	■						
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■					
60,3		■	■	■	■	■		■	■	■		■		■				
63,3		■	■	■	■		■	■	■		■	■	■		■			
80,3		■	■	■	■	■	■	■	■	■	■	■	■		■		■	
100,3		■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■
125,3			■	■	■	■	■	■	■	■	■	■	■		■	■	■	
150,3			■	■	■	■		■	■	■		■			■	■		
160,3			■	■	■		■	■	■		■	■	■		■	■		
200,3				■	■	■	■	■	■	■	■	■	■		■	■		
250,3							■	■	■	■	■	■	■		■	■		
315,3								■	■		■	■	■					
400,3									■		■	■	■					
600,3				■	■													

Tolerances



Standard values

Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,95 - 1,05	0,1 - 0,4	0,4 - 0,8	0 - 0,03	0 - 0,03	4,8 - 5,5	0,9 - 1,2	0,15 - 0,35

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/A2-4

Technical properties

Air hardening cold work steel, good machinability, high wear resistance and improved toughness (reduced occurence of hard carbides with about 5% chromium compared to 12% chromium in ledeburites AISI / SAE D2, AISI / SAE D6, AISI / SAE D3 mod.). Good dimensional stability during heat treatment and easily repairable through welding. Working hardness: 58-62 HRC.

Applications

Blanking tools, stamping tools, dies, punches, trimming tools, cutting tools, thread rolling tools, thread rolling dies, shear knives, circular shear knives, cold pilger mandrels, cold stamping tools, plastic moulds.

AISI / SAE A2 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/A2

via smartphone / tablet:

NAVIGATION/ STEEL GRADES

1.2990 mod.
1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

back to the previous page

next page

PRECISION ROUND STEEL WITH MACHINING ALLOWANCE – PEELED / ROUGH TURNED!

ABRAMS!®
PREMIUM STEEL

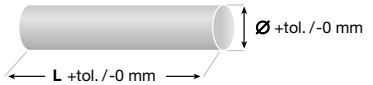
PREMIUM 1.2363 – AISI / SAE A2 (X100CrMoV5-1)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20,5	●	●
30,5	●	●
35,5	●	●
40,5	●	●
45,5	●	●
50,5	●	●
55,5	●	●
60,5	●	●
65,5		●
70,5		●
75,5		●
80,5		●
85,5		●
90,5		●
95,5		●
100,5		●

Larger diameters, up to 350,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,95 - 1,05	0,1 - 0,4	0,4 - 0,8	0 - 0,03	0 - 0,03	4,8 - 5,5	0,9 - 1,2	0,15 - 0,35

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us
T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/A2-7

Technical properties
Air hardening cold work steel, good machinability, high wear resistance and improved toughness (reduced occurence of hard carbides with about 5% chromium compared to 12% chromium in ledeburites AISI / SAE D2, AISI / SAE D6, AISI / SAE D3 mod.). Good dimensional stability during heat treatment and easily repairable through welding. Working hardness: 58-62 HRC.

Applications
Blanking tools, stamping tools, dies, punches, trimming tools, cutting tools, thread rolling tools, thread rolling dies, shear knives, circular shear knives, cold pilger mandrels, cold stamping tools, plastic moulds.

AISI / SAE A2 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/A2

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

FASTEST POSSIBLE DELIVERY !

ABRAMS!®
PREMIUM STEEL

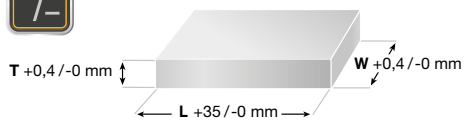
PREMIUM 1.2361 – AISI / SAE 1.2361 (X91CrMoV18)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]																	
	3,2	4,2	5,2	6,2	8,2	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3
	Available dimensions [■]																	
10,3						■												
12,3							■											
15,3								■										
20,3	■	■	■	■	■	■	■	■	■									
25,3	■	■	■	■	■	■	■	■	■	■								
30,3	■	■	■	■	■	■	■	■	■	■	■							
40,3	■	■	■	■	■	■	■	■	■	■	■	■						
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■					
60,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
70,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
90,3					■	■	■	■	■	■	■	■	■	■	■	■	■	
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
120,3						■	■	■	■	■	■	■	■	■	■	■		■
150,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■
250,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■		■
300,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■		■
500*					■	■	■	■	■	■	■	■	■	■	■	■		■

* Width and length sawn / black with +tol. / -0 mm

Tolerances



Standard values

Delivery condition: maximum 265 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V	Cu
0,86 - 0,96	0 - 1,0	0 - 1,0	0 - 0,045	0 - 0,03	17,0 - 19,0	0,9 - 1,3	0 - 0,3	0,07 - 0,12	0 - 0,3

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
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Technical properties

Corrosion resistant martensitic chromium steel (approx. 18% Cr) for cold work. Achieves, through heat treatment, an unusually high degree of hardness and wear resistance. Polishable to a long lasting high gloss. Working hardness: 53-58 HRC.

Applications

Cutting tools, knives, knife blades, cutlery , guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic moulds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.

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via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

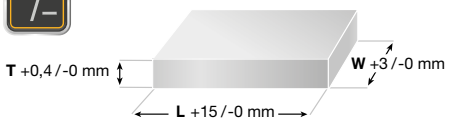
1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

PREMIUM 1.2361 – AISI / SAE 1.2361 (X91CrMoV18)

€co-Präz® 300 [€co]
Length: 300 mm

WIDTH	THICKNESS [mm]																		
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3
	Available dimensions [■]																		
33	■	■	■	■	■	■	■	■	■	■	■	■							
43	■	■	■	■	■	■	■	■	■	■	■	■	■						
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 265 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V	Cu
0,86 - 0,96	0 - 1,0	0 - 1,0	0 - 0,045	0 - 0,03	17,0 - 19,0	0,9 - 1,3	0 - 0,3	0,07 - 0,12	0 - 0,3

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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www.premium-steel.eu/2361-3-5

Technical properties

Corrosion resistant martensitic chromium steel (approx. 18% Cr) for cold work. Achieves, through heat treatment, an unusually high degree of hardness and wear resistance. Polishable to a long lasting high gloss. Working hardness: 53-58 HRC.

Applications

Cutting tools, knives, knife blades, cutlery , guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic moulds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.

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www.premium-steel.eu/1.2361

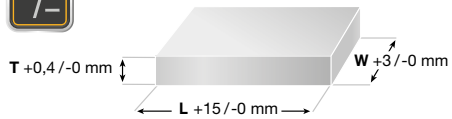
via smartphone / tablet:

PREMIUM 1.2361 – AISI / SAE 1.2361 (X91CrMoV18)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]																		
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3
	Available dimensions [■]																		
33	■	■	■	■	■	■	■	■	■	■	■	■							
43	■	■	■	■	■	■	■	■	■	■	■	■	■						
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■									
343	■	■	■	■	■	■	■	■	■	■									
353	■	■	■	■	■	■	■	■	■	■									
363	■	■	■	■	■	■	■	■	■	■									
383	■	■	■	■	■	■	■	■	■	■									
403	■	■	■	■	■	■	■	■	■	■									
423	■	■	■	■	■	■	■	■	■	■									
443	■	■	■	■	■	■	■	■	■	■									
453	■	■	■	■	■	■	■	■	■	■									
463	■	■	■	■	■	■	■	■	■	■									
483	■	■	■	■	■	■	■	■	■	■									
503	■	■	■	■	■	■	■	■	■	■									

Tolerances



Standard values
Delivery condition: maximum 265 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V	Cu
0,86 - 0,96	0 - 1,0	0 - 1,0	0 - 0,045	0 - 0,03	17,0 - 19,0	0,9 - 1,3	0 - 0,3	0,07 - 0,12	0 - 0,3

If you need customised dimensions -
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Technical properties
Corrosion resistant martensitic chromium steel (approx. 18% Cr) for cold work. Achieves, through heat treatment, an unusually high degree of hardness and wear resistance. Polishable to a long lasting high gloss. Working hardness: 53-58 HRC.

Applications
Cutting tools, knives, knife blades, cutlery , guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic moulds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.

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via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

PREMIUM 1.2361 – AISI / SAE 1.2361 (X91CrMoV18)

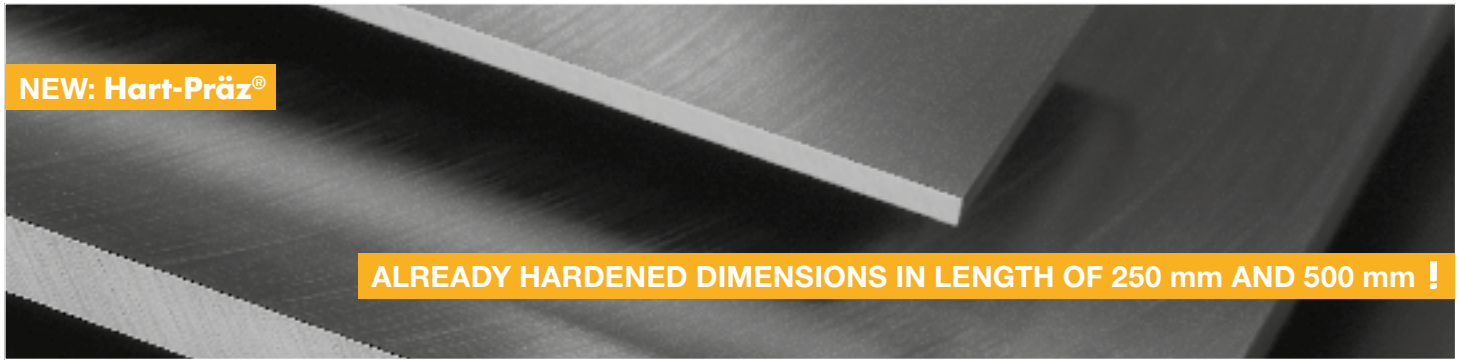
Hart-Präz® 250 [Hart]
Length: 250 mm

WIDTH	THICKNESS [mm]												
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2
250	Available dimensions [■]												
	■	■	■	■	■	■	■	■	■	■	■	■	■

Hart-Präz® 500 [Hart]
Length: 500 mm

WIDTH	THICKNESS [mm]												
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2
250	Available dimensions [■]												
	■	■	■	■	■	■	■	■	■	■	■	■	■

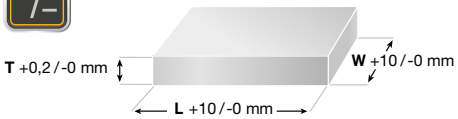
Hardened dimensions are delivered with approx. 53 HRC, at least 2x tempered.



Technical properties
Corrosion resistant martensitic chromium steel (approx. 18% Cr) for cold work. Achieves, through heat treatment, an unusually high degree of hardness and wear resistance. Polishable to a long lasting high gloss. Working hardness: 53-58 HRC.

Applications
Cutting tools, knives, knife blades, cutlery , guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic moulds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.

Tolerances



Standard values
Delivery condition: approx. 53 HRC
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V	Cu
0,86 - 0,96	0 - 1,0	0 - 1,0	0 - 0,045	0 - 0,03	17,0 - 19,0	0,9 - 1,3	0 - 0,3	0,07 - 0,12	0 - 0,3

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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via smartphone / tablet:

PREMIUM 1.2361 – AISI / SAE 1.2361 (X91CrMoV18)

Precision round steel without machining allowance [PRS]
Specification: bright drawn / ground, ISO h9

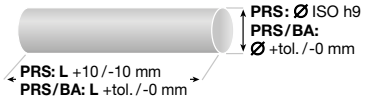
Ø [mm]	LENGTH [mm] 1.000
	Available dimensions [•]
10,0	•
12,0	•
14,0	•
15,0	•
16,0	•
18,0	•
20,0	•
25,0	•
30,0	•
35,0	•
40,0	•
45,0	•
50,0	•

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20,0	•	•
25,0	•	•
30,0	•	•
35,0	•	•
40,0	•	•
45,0	•	•
50,0	•	•
55,0	•	•
60,0	•	•
65,0		•
70,0		•
75,0		•
80,0		•
85,0		•
90,0		•
95,0		•
100,0		•

Larger diameters, up to 405,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 265 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V	Cu
0,86 - 0,96	0 - 1,0	0 - 1,0	0 - 0,045	0 - 0,03	17,0 - 19,0	0,9 - 1,3	0 - 0,3	0,07 - 0,12	0 - 0,3

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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E: sales@abrams-industries.eu

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[PRS]
www.premium-steel.eu/2361-6
[PRS/BA]
www.premium-steel.eu/2361-7

Technical properties
Corrosion resistant martensitic chromium steel (approx. 18% Cr) for cold work. Achieves, through heat treatment, an unusually high degree of hardness and wear resistance. Polishable to a long lasting high gloss. Working hardness: 53-58 HRC.

Applications
Cutting tools, knives, knife blades, cutlery , guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic moulds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.

AISI / SAE 1.2361 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
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via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

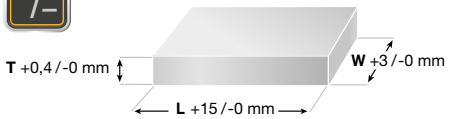
PREMIUM 1.2360/1.2360 mod. – AISI / SAE ~ CHIPPER/~ CHIPPER mod. (X48CrMoV8-1-1/X48CrMoV8-1)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]																		
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3
	Available dimensions [■]																		
33	■	■	■	■	■	■	■	■	■	■	■	■							
43	■	■	■	■	■	■	■	■	■	■	■	■	■						
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■														
343	■	■	■	■	■														
353	■	■	■	■	■														
363	■	■	■	■	■														
383	■	■	■	■	■														
403	■	■	■	■	■														
423	■	■	■	■	■														
443	■	■	■	■	■														
453	■	■	■	■	■														
463	■	■	■	■	■														
483	■	■	■	■	■														
503	■	■	■	■	■														

Thickness 2,3 up to 6,3 mm will be delivered as Chipper-Knife-Steel (reduced content of vanadium - approx. 0,5 % V - in order to increase the toughness for your application).

Tolerances



Standard values (1.2360/~Chipper)
Delivery condition: maximum 250 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,45 - 0,5	0,7 - 0,9	0,35 - 0,45	0 - 0,02	0 - 0,005	7,3 - 7,8	1,3 - 1,5	1,3 - 1,5

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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www.premium-steel.eu/Chipper-5

Technical properties
Very robust cold work steel which can be used for a wide range of applications. Has a good through-hardenability and high toughness (reduced occurence of hard carbides with about 8% chromium compared to 12% chromium in AISI / SAE D2, AISI / SAE D6, AISI / SAE D3 mod.). High cutting power, high wear resistance as well as excellent tempering resistance.
Working hardness: 50-60 HRC.

Applications
Blanking tools, stamping tools, embossing tools, forming dies, press dies, die inserts, extrusion dies, reinforcements, cold extrusion tools, tube tools, cutting tools, industrial knives, wood chipping knives, veneer knives.

AISI / SAE ~Chipper – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/Chipper

via smartphone / tablet:

PREMIUM 1.2360/1.2360 mod. – AISI / SAE ~ CHIPPER/~ CHIPPER mod. (X48CrMoV8-1-1/X48CrMoV8-1)

Precision round steel [PRS/BA] 1.2360/~Chipper
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
26,0	•	•
31,0	•	•
36,0	•	•
40,0	•	•
55,0	•	•
65,0		•
75,0		•
90,0		•
95,0		•
100,0		•

Larger diameters, up to 285,0 mm, and different lengths (e.g. round blanks) available on request!

Precision round steel with machining allowance [PRS/BA] 1.2360 mod./~Chipper mod.
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
32,4	•	•
40,4	•	•
50,4	•	•
63,5	•	•
70,5		•
80,5		•
90,5		•
100,5		•

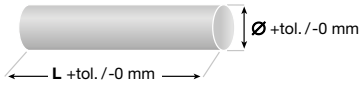
Larger diameters, up to 322,5 mm, and different lengths (e.g. round blanks) available on request!

This specification will be delivered as Chipper-Knife-Steel (reduced content of vanadium - approx. 0,5% V - in order to increase the toughness for your application).

Technical properties
Very robust cold work steel which can be used for a wide range of applications. Has a good through-hardenability and high toughness (reduced occurence of hard carbides with about 8% chromium compared to 12% chromium in AISI / SAE D2, AISI / SAE D6, AISI / SAE D3 mod.). High cutting power, high wear resistance as well as excellent tempering resistance. Working hardness: 50-60 HRC.

Applications
Blanking tools, stamping tools, embossing tools, forming dies, press dies, die inserts, extrusion dies, reinforcements, cold extrusion tools, tube tools, cutting tools, industrial knives, wood chipping knives, veneer knives.

Tolerances



Standard values (1.2360/~Chipper)
Delivery condition: maximum 250 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,45 - 0,5	0,7 - 0,9	0,35 - 0,45	0 - 0,02	0 - 0,005	7,3 - 7,8	1,3 - 1,5	1,3 - 1,5

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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E: sales@abrams-industries.eu

Direct access to our online shop
[PRS/BA] 1.2360/~Chipper
www.premium-steel.eu/Chipper-7
[PRS/BA] 1.2360 mod./~Chipper mod.
www.premium-steel.eu/Chippermod-7

AISI / SAE ~Chipper – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/Chipper

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

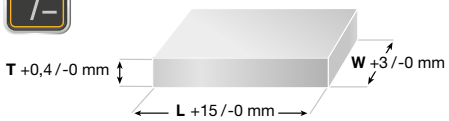
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

PREMIUM 1.2358 – AISI / SAE 1.2358 (60CrMoV18-5)

€co-Präz® 300 [€co]
Length: 300 mm

WIDTH	THICKNESS [mm]																
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3	150,3
	Available dimensions [■]																
33	■	■	■	■	■	■	■										
43	■	■	■	■	■	■	■	■									
53	■	■	■	■	■	■	■	■	■								
63	■	■	■	■	■	■	■	■	■	■							
73	■	■	■	■	■	■	■	■	■	■	■						
83	■	■	■	■	■	■	■	■	■	■	■	■					
93	■	■	■	■	■	■	■	■	■	■	■	■	■				
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,58 - 0,62	0,2 - 0,5	0,7 - 0,9	0 - 0,03	0 - 0,03	4,3 - 4,7	0,4 - 0,6	0,2 - 0,3

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Direct access to our online shop

www.premium-steel.eu/2358-3-5

Technical properties

Tempered tool steel (with focus on cold work). High impact toughness and wear resistance, excellent surface hardenability and through-hardenability. High degree of dimensional stability, Good polishability and weldability. AISI / SAE 1.2358 can be a substitute for AISI / SAE D2, AISI / SAE D6, AISI / SAE D3 mod. Working hardness: approx. 33 HRC (delivery condition) up to 60 HRC.

Applications

Segmented cutting tools, shear knives, forming dies, cold forming tools, deep drawing dies, cold extrusion tools, bending tools, rollers, embossing tools, mould tools, plastic moulds, hot working tools at low temperature stress.

AISI / SAE 1.2358 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2358

via smartphone / tablet:

back to the previous page

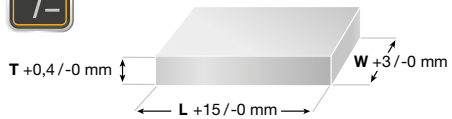
next page

PREMIUM 1.2358 – AISI / SAE 1.2358 (60CrMoV18-5)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]																
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3	150,3
	Available dimensions [■]																
33	■	■	■	■	■	■	■										
43	■	■	■	■	■	■	■	■									
53	■	■	■	■	■	■	■	■	■								
63	■	■	■	■	■	■	■	■	■	■							
73	■	■	■	■	■	■	■	■	■	■	■						
83	■	■	■	■	■	■	■	■	■	■	■	■					
93	■	■	■	■	■	■	■	■	■	■	■	■	■				
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,58 - 0,62	0,2 - 0,5	0,7 - 0,9	0 - 0,03	0 - 0,03	4,3 - 4,7	0,4 - 0,6	0,2 - 0,3

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Direct access to our online shop

www.premium-steel.eu/2358-5-5

Technical properties

Tempered tool steel (with focus on cold work). High impact toughness and wear resistance, excellent surface hardenability and through-hardenability. High degree of dimensional stability, Good polishability and weldability. AISI / SAE 1.2358 can be a substitute for AISI / SAE D2, AISI / SAE D6, AISI / SAE D3 mod. Working hardness: approx. 33 HRC (delivery condition) up to 60 HRC.

Applications

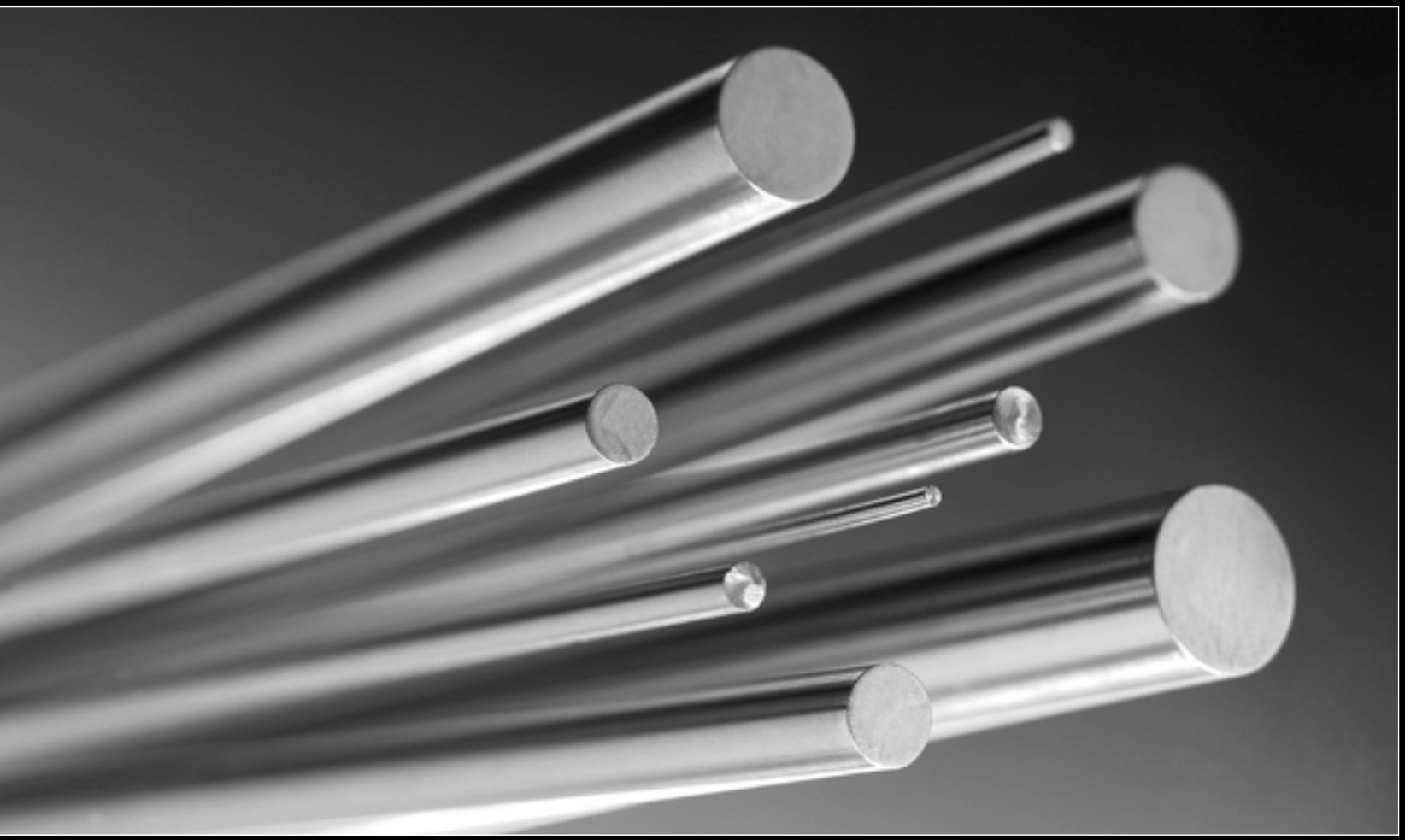
Segmented cutting tools, shear knives, forming dies, cold forming tools, deep drawing dies, cold extrusion tools, bending tools, rollers, embossing tools, mould tools, plastic moulds, hot working tools at low temperature stress.

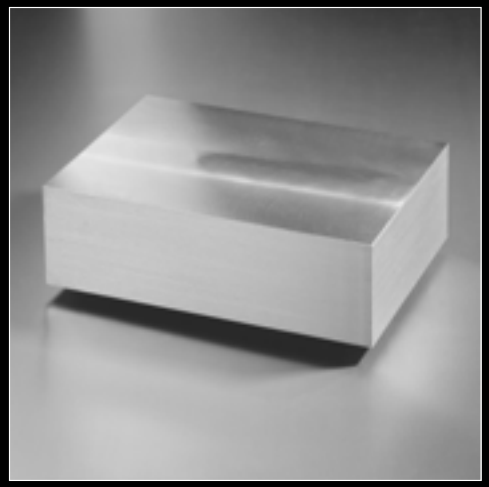
AISI / SAE 1.2358 – all at a glance!

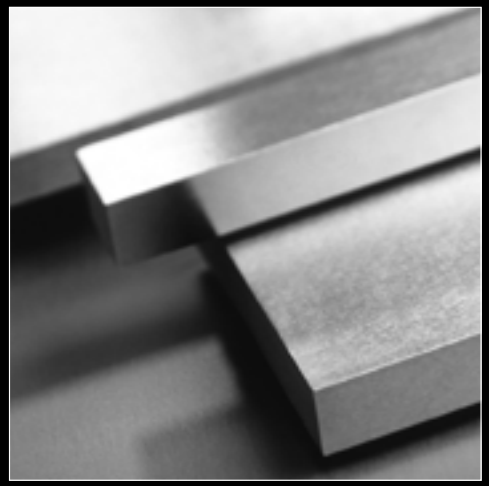
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2358

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR







BECOME EVEN BETTER WITH **ABRAMS PREMIUM STEEL®** THAN YOUR COMPETITORS SUSPECT!

ABRAMS! PREMIUM STEEL®

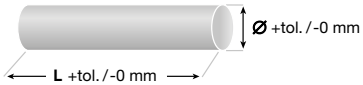
PREMIUM 1.2344 – AISI / SAE H13 (X40CrMoV5-1)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
15,5	•	•
20,5	•	•
25,5	•	•
30,5	•	•
35,5	•	•
40,5	•	•
45,5	•	•
50,5	•	•
55,5	•	•
60,5	•	•
65,5		•
70,5		•
75,5		•
80,5		•
85,5		•
90,5		•
95,5		•
100,5		•

Larger diameters, up to 635,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,35 - 0,42	0,8 - 1,2	0,25 - 0,5	0 - 0,03	0 - 0,02	4,8 - 5,5	1,2 - 1,5	0,85 - 1,15

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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Technical properties
Hot work steel with excellent heat resistance and high wear resistance (slightly higher than AISI / SAE H11). Good toughness and thermal conductivity. Can be cooled with water and is resistant to thermal shock. Working hardness: 50 - 56 HRC.

Applications
Forging tools and dies, hot shear knives, hot extrusion tools, extrusion press tools, press tools, block receivers, die casting tools, light metal die casting, press mandrels, press dies, piecer plugs, screw production, rivet production, bolts production, ejectors, plastic moulds.

AISI / SAE H13 – all at a glance!
Datasheets, online shop, ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/H13

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

NAVIGATION/ STEEL GRADES

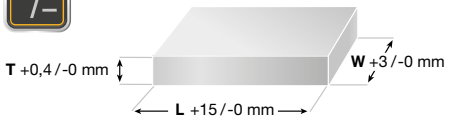
1.2990 mod.
1.2990 mod.
1.2842
O2/O1
1.2826
1.2826
1.2767
6F7
1.2767 ESU
6F7 ESR
1.2738
P20+Ni
1.2714
L6
1.2714+QT
L6+QT
1.2709 ESU
1.2709 ESR
1.2550
S1
1.2436
D6
1.2379
D2
1.2367
1.2367
1.2365
H10
1.2363
A2
1.2361
1.2361
1.2360
~ Chipper
1.2358
1.2358
1.2344
H13
1.2344 ESU
H13 ESR

PREMIUM 1.2344 ESU – AISI / SAE H13 ESR (X40CrMoV5-1)

€co-Präz® 300 [€co]
Length: 300 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,35 - 0,42	0,8 - 1,2	0,25 - 0,5	0 - 0,03	0 - 0,02	4,8 - 5,5	1,2 - 1,5	0,85 - 1,15

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/H13ESR-3-5

Technical properties

Hot work steel with excellent heat resistance and wear resistance (slightly higher than AISI / SAE H11). Good toughness and thermal conductivity. Can be cooled with water and is resistant to thermal shock. The ESR production (Electro Slag Remelted Steel) guarantees pureness and homogeneousness, as well as improved toughness. Working hardness: 50-56 HRC.

Applications

Forging tools and dies, hot shear knives, hot extrusion tools, extrusion press tools, press tools, block receivers, die casting tools, light metal die casting, press mandrels, press dies, piecer plugs, screw production, rivet production, bolts production, ejectors, plastic moulds.

AISI / SAE H13 ESR – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/H13ESR

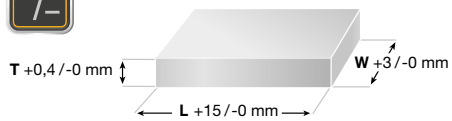
via smartphone / tablet:

PREMIUM 1.2344 ESU – AISI / SAE H13 ESR (X40CrMoV5-1)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,35 - 0,42	0,8 - 1,2	0,25 - 0,5	0 - 0,03	0 - 0,02	4,8 - 5,5	1,2 - 1,5	0,85 - 1,15

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Direct access to our online shop

www.premium-steel.eu/H13ESR-5-5

Technical properties

Hot work steel with excellent heat resistance and wear resistance (slightly higher than AISI / SAE H11). Good toughness and thermal conductivity. Can be cooled with water and is resistant to thermal shock. The ESR production (Electro Slag Remelted Steel) guarantees pureness and homogeneousness, as well as improved toughness. Working hardness: 50-56 HRC.

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Forging tools and dies, hot shear knives, hot extrusion tools, extrusion press tools, press tools, block receivers, die casting tools, light metal die casting, press mandrels, press dies, piecer plugs, screw production, rivet production, bolts production, ejectors, plastic moulds.

AISI / SAE H13 ESR – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/H13ESR

via smartphone / tablet:

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NAVIGATION/ STEEL GRADES
1.2990 mod. 1.2990 mod.
1.2842 O2/O1
1.2826 1.2826
1.2767 6F7
1.2767 ESU 6F7 ESR
1.2738 P20+Ni
1.2714 L6
1.2714+QT L6+QT
1.2709 ESU 1.2709 ESR
1.2550 S1
1.2436 D6
1.2379 D2
1.2367 1.2367
1.2365 H10
1.2363 A2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 H13
1.2344 ESU H13 ESR

SPECIFICATIONS !

Our delivery program contains 32.629 different specifications/standard dimensions.
Any dimension is available in different **heights**, **widths** and **lengths**. On request – according to your needs!

Precision flat steel without machining allowance [PFS] acc. to DIN 59350

For example: 100,0 x 20,0 x 1.000 mm

- **W** ground/milled, tol. +0,2/-0 mm
- **T** coplanar ground, tol. +0,05/-0 mm
- **L** milled/sawn, tol. +35/-0 mm
- **Exception: PREMIUM 1.1730 – AISI / SAE 1045: W** +0,4/-0 mm, **T** +0,25/-0 mm

Precision round steel without machining allowance [PRS]

- bright ground, tol.: ∅ ISO h8, **L** +10/-10 mm
- bright drawn/finely peeled/ground, tol.: ∅ ISO h9, **L** +10/-10 mm
- bright finely peeled, tol.: ∅ ISO h11, **L** +10/-10 mm

Precision flat steel with machining allowance [PRS/BA]

For example: 100,3 x 20,3 x 1.000 mm

- **W** ground/milled, tol. +0,4/-0 mm
- **T** coplanar ground/finely milled, tol. +0,4/-0 mm
- **L** milled/sawn, tol. +35/-0 mm

Precision round steel with machining allowance [PRS/BA]

- peeled/rough-turned, tol.: ∅ +tol./-0 mm, **L** +tol./-0 mm
- **Exception PREMIUM 1.3343 – AISI / SAE M2: L** 1.000 mm, tol. **L** +10/-10 mm
- **Particularity: PREMIUM 1.2826 – AISI / SAE 1.2826, PREMIUM 1.2360 – AISI / SAE ~Chipper, PREMIUM 1.2067 – AISI / SAE L3:** ∅ are metric full values (for example 30,0 mm), therefore there is no basic machining allowance (for example 30,5 mm)

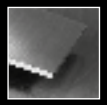
€co-Präz® [€co]

For example: 103 x 20,3 x 500 mm

- **W** sawn/black, tol. +3/-0 mm
- **T** finely milled, tol. +0,4/-0 mm
- **L** sawn/black, tol. +15/-0 mm

Round steel [RS]

- black, tol.: ∅ +1/-1 mm (aspired), **L** +tol./-0 mm



Hart-Präz® [Hart]

For exmaple: 250 x 10,2 x 500 mm

- **W** sawn/black, Tol. +10/-0 mm
- **T** coplanar ground, Tol. +0,2/-0 mm
- **L** sawn/black, Tol. +10/-0 mm

Planeness: +0,2/-0 mm of the entire surface (aspired)

Erosion block/EDM block – annealed or hardened [EB]

For example: 200,3 x 200,3 x 40,0 mm

- **Square dimension** milled/ground, tol. +2/-0 mm
- **T** finely milled/ground, tol. +0,25/-0 mm
- Grain structure is vertically directed in relation to base surface

STEEL CLASSIFICATIONS !

Steel grades are classified by their technical **properties** and/or by their **intended use**.

For example:
Cold work steel, hot work steel, plastic mould steel, high speed steel, corrosion resistant steel or case hardening steel.
Steel grades are often assigned to several classification groups.

For more details on classification see www.steel-guide.eu/glossary

ABRAMS PREMIUM STEEL® – QUALITY THAT WILL IMPRESS YOU!

TOOL STEEL II

STEEL GRADE

Description	PFS 500 mm	PFS 1.000 mm	PFS/BA 500 mm	PFS/BA 1.000 mm	PFS/BA 200, 300, 400, 600 mm	Eco-Präz® 300, 500, 1.000 mm	Hart-Präz® 250, 500 mm	Erosion block (annealed, hardened)	PRS ISO h8 / h9 / h11 1.000 mm	PRS/BA 500 mm	PRS/BA 1.000 mm	RS 500 mm	RS 1.000 mm	Delivery hardness (annealed/tempered) max. [HB]	Delivery hardness (hardened) approx. [HRC]	Approx. tensile strength [N/mm²] (deliv. cond.)	Max. working hardness [HRC]	Cold work steel	Hot work steel	Plastic mould steel	High speed steel	Corrosion resistant steel	Acid resistant steel	Heat-treatable steel	Case hardening steel	Nitriding steel	
PREMIUM 1.2343 AISI / SAE H11	X37CrMoV5-1			✓	✓				✓	✓	✓			229		770	54		✓	✓							**1.2343 H11**
PREMIUM 1.2343 ESU AISI / SAE H11 ESR	X37CrMoV5-1				✓		✓							229		770	54		✓	✓							**1.2343 ESU H11 ESR**
PREMIUM 1.2316 AISI / SAE 1.2316	X38CrMo16						✓		✓	✓	✓			325		1100	48			✓		✓	✓				**1.2316 1.2316**
PREMIUM 1.2312 AISI / SAE P20+S	40CrMnMoS8-6			✓	✓				✓	✓	✓			325		1100	50	✓		✓							**1.2312 P20+S**
PREMIUM 1.2311 AISI / SAE P20	40CrMnMo7			✓	✓					✓	✓			325		1100	50	✓		✓							**1.2311 P20**
PREMIUM 1.2294 AISI / SAE 1.2294	~X5CrS12			✓			✓			✓	✓			330		1125	35			✓		✓					**1.2294 1.2294**
PREMIUM 1.2210 AISI / SAE L2	115CrV3								✓					220		750	62	✓									**1.2210 L2**
PREMIUM 1.2162 AISI / SAE 1.2162	21MnCr5				✓		✓					✓	✓	217		720	60	✓		✓					✓		**1.2162 1.2162**
PREMIUM 1.2099 AISI / SAE 1.2099	~X5CrS12			✓			✓			✓	✓			330		1125	35			✓		✓					**1.2099 1.2099**
PREMIUM 1.2085/1.2099 AISI / SAE 420FM/1.2099	X33CrS16 / ~X5CrS12			✓	✓		✓			✓	✓			330		1125	48			✓		✓					**1.2085 420FM**
PREMIUM 1.2083 AISI / SAE 420	X40Cr14				✓		✓	✓		✓	✓	✓		241	50	815	55			✓		✓	✓				**1.2083 420**
PREMIUM 1.2083 ESU AISI / SAE 420 ESR	X40Cr14						✓							241		815	55			✓		✓	✓				**1.2083 ESU 420 ESR**
PREMIUM 1.2080 AISI / SAE D3	~X210Cr12	✓		✓	✓			✓		✓	✓			255	58	860	62	✓		✓							**1.2080 D3**
PREMIUM 1.2067/1.3505 AISI / SAE L3/L1	102Cr6 / 100Cr6						✓		✓		✓			223		750	64	✓									**1.2067 L3 / L1**
PREMIUM 1.1730 AISI / SAE 1045	C45U	✓	✓						✓			✓	✓	190		650	54	✓									**1.1730 1045**
PREMIUM 1.0570 AISI / SAE 1.0570	St 52-3 / ~S355J2+N			✓	✓				✓			✓	✓	180		625	< 20	✓									**1.0570 1.0570**
PREMIUM Toolox 33 AISI / SAE Toolox 33	Toolox 33						✓							330		1125	36	✓		✓							**Toolox 33 Toolox 33**
PREMIUM Toolox 44 AISI / SAE Toolox 44	Toolox 44						✓			✓	✓			418		1420	45	✓		✓							**Toolox 44 Toolox 44**

NAVIGATION/ STEEL GRADES

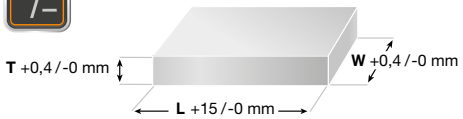
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.2343 – AISI / SAE H11 (X37CrMoV5-1)

Precision flat steel with machining allowance [PFS/BA]
Length: 500 mm

WIDTH	THICKNESS [mm] 4,2	5,2	6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	63,3	70,3	80,3	100,3
	Available dimensions [■]																		
10,3	■	■	■	■	■														
12,3	■	■	■	■	■	■													
15,3	■	■	■	■	■	■	■												
16,3	■	■	■	■	■	■		■											
20,3	■	■	■	■	■	■	■	■	■										
25,3	■	■	■	■	■	■	■	■	■	■									
30,3	■	■	■	■	■	■	■	■	■	■	■								
32,3	■	■	■	■	■	■	■	■	■	■	■	■							
40,3	■	■	■	■	■	■	■	■	■	■	■	■	■						
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
60,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
63,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
70,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■		
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
125,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
150,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
160,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3				■	■	■	■	■	■	■	■	■	■	■	■				
300,3				■	■	■	■	■	■	■	■	■	■	■	■				

Tolerances



Standard values

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,33 - 0,41	0,8 - 1,2	0,25 - 0,5	0 - 0,03	0 - 0,02	4,8 - 5,5	1,1 - 1,5	0,3 - 0,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Direct access to our online shop

www.premium-steel.eu/H11-3

Technical properties

Hot work steel with excellent heat resistance and wear resistance. Good toughness and thermal conductivity. Can be cooled with water and is resistant to thermal shock. The ESR production (Electro Slag Remelted Steel) guarantees pureness and homogeneousness, as well as improved toughness. Working hardness: 50-54 HRC.

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AISI / SAE H11 – all at a glance!

Datasheets, online shop,
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via smartphone/tablet:

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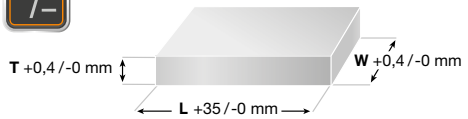
PREMIUM 1.2343 – AISI / SAE H11 (X37CrMoV5-1)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]																		
	4,2	5,2	6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	63,3	70,3	80,3	100,3
	Available dimensions [■]																		
10,3	■	■	■	■	■														
12,3	■	■	■	■	■	■													
15,3	■	■	■	■	■	■	■												
16,3	■	■	■	■	■	■		■											
20,3	■	■	■	■	■	■	■	■	■										
25,3	■	■	■	■	■	■	■	■	■	■									
30,3	■	■	■	■	■	■	■	■	■	■	■								
32,3	■	■	■	■	■	■	■	■	■	■	■	■							
40,3	■	■	■	■	■	■	■	■	■	■	■	■	■						
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
60,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
63,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
70,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■		
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
125,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
150,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
160,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3				■	■	■	■	■	■	■	■	■	■	■	■				
300,3				■	■	■	■	■	■	■	■	■	■	■	■				

Tolerances



Standard values

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,33 - 0,41	0,8 - 1,2	0,25 - 0,5	0 - 0,03	0 - 0,02	4,8 - 5,5	1,1 - 1,5	0,3 - 0,5

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On request - according to your needs!

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Direct access to our online shop

www.premium-steel.eu/H11-4

Technical properties

Hot work steel with excellent heat resistance and wear resistance. Good toughness and thermal conductivity. Can be cooled with water and is resistant to thermal shock. The ESR production (Electro Slag Remelted Steel) guarantees pureness and homogeneousness, as well as improved toughness. Working hardness: 50-54 HRC.

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AISI / SAE H11 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/H11

via smartphone / tablet:

NAVIGATION/ STEEL GRADES

1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

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PERFECTION!

ABRAMS!®
PREMIUM STEEL

PREMIUM 1.2343 – AISI / SAE H11 (X37CrMoV5-1)

Precision round steel without machining allowance [PRS]
Specification: bright ground, ISO h8

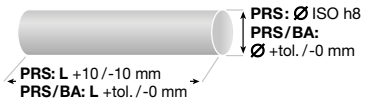
Ø [mm]	LENGTH [mm] 1.000
	Available dimensions [•]
10,0	●
12,0	●
15,0	●
20,0	●
25,0	●

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
15,5	●	●
20,5	●	●
25,5	●	●
30,5	●	●
35,5	●	●
40,5	●	●
45,5	●	●
50,5	●	●
55,5	●	●
60,5	●	●
65,5		●
70,5		●
75,5		●
80,5		●
85,5		●
90,5		●
95,5		●
100,5		●

Larger diameters, up to 680,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,33 - 0,41	0,8 - 1,2	0,25 - 0,5	0 - 0,03	0 - 0,02	4,8 - 5,5	1,1 - 1,5	0,3 - 0,5

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

[PRS]
www.premium-steel.eu/H11-6
[PRS/BA]
www.premium-steel.eu/H11-7

Technical properties

Hot work steel with excellent heat resistance and wear resistance. Good toughness and thermal conductivity. Can be cooled with water and is resistant to thermal shock. The ESR production (Electro Slag Remelted Steel) guarantees pureness and homogeneousness, as well as improved toughness. Working hardness: 50 - 54 HRC.

Applications

Forging tools and dies, hot shear knives, hot extrusion tools, extrusion press tools, press tools, block receivers, die casting tools, light metal die casting, press mandrels, press dies, piecer plugs, screw production, rivet production, bolts production, ejectors, plastic moulds.

AISI / SAE H11 – all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/H11

via smartphone / tablet:

NAVIGATION/ STEEL GRADES

1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

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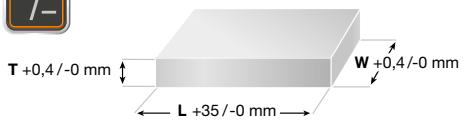
ABRAMS!®
PREMIUM STEEL

PREMIUM 1.2343 ESU – AISI / SAE H11 ESR (X37CrMoV5-1)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]														
	4,2	5,2	6,2	8,2	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	80,3	100,3
	Available dimensions [■]														
8,3	■	■	■												
10,3	■	■	■	■	■										
12,3	■	■	■	■	■	■									
15,3	■	■	■	■	■	■	■								
20,3	■	■	■	■	■	■	■	■							
25,3	■	■	■	■	■	■	■	■	■						
30,3	■	■	■	■	■	■	■	■	■	■					
40,3	■	■	■	■	■	■	■	■	■	■	■				
50,3	■	■	■	■	■	■	■	■	■	■	■	■			
60,3	■	■	■	■	■	■	■	■	■	■	■	■	■		
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
120,3				■	■	■	■	■	■	■	■	■	■	■	■
150,3				■	■	■	■	■	■	■	■	■	■	■	■
200,3				■	■	■	■	■	■	■	■	■	■	■	■
250,3				■	■	■	■	■	■	■	■	■	■	■	■
300,3				■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,33 - 0,41	0,8 - 1,2	0,25 - 0,5	0 - 0,03	0 - 0,02	4,8 - 5,5	1,1 - 1,5	0,3 - 0,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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Direct access to our online shop

www.premium-steel.eu/H11ESR-4

Technical properties

Hot work steel with excellent heat resistance and wear resistance. Good toughness and thermal conductivity. Can be cooled with water and is resistant to thermal shock. The ESR production (Electro Slag Remelted Steel) guarantees pureness and homogeneousness, as well as improved toughness. Working hardness: 50-54 HRC.

Applications

Forging tools and dies, hot shear knives, hot extrusion tools, extrusion press tools, press tools, block receivers, die casting tools, light metal die casting, press mandrels, press dies, piecer plugs, screw production, rivet production, bolts production, ejectors, plastic moulds.

AISI / SAE H11 ESR – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/H11ESR

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

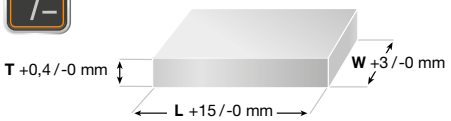
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.2343 ESU – AISI / SAE H11 ESR (X37CrMoV5-1)

€co-Präz® 300 [€co]
Length: 300 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,33 - 0,41	0,8 - 1,2	0,25 - 0,5	0 - 0,03	0 - 0,02	4,8 - 5,5	1,1 - 1,5	0,3 - 0,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
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Technical properties

Hot work steel with excellent heat resistance and wear resistance. Good toughness and thermal conductivity. Can be cooled with water and is resistant to thermal shock. The ESR production (Electro Slag Remelted Steel) guarantees pureness and homogeneousness, as well as improved toughness. Working hardness: 50-54 HRC.

Applications

Forging tools and dies, hot shear knives, hot extrusion tools, extrusion press tools, press tools, block receivers, die casting tools, light metal die casting, press mandrels, press dies, piecer plugs, screw production, rivet production, bolts production, ejectors, plastic moulds.

AISI / SAE H11 ESR – all at a glance!

Datasheets, online shop,
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via smartphone/tablet:

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PREMIUM 1.2343 ESU – AISI / SAE H11 ESR (X37CrMoV5-1)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]												
	10,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3
	Available dimensions [■]												
53	■	■	■	■	■	■	■						
63	■	■	■	■	■	■	■	■					
73	■	■	■	■	■	■	■	■	■				
83	■	■	■	■	■	■	■	■	■	■			
93	■	■	■	■	■	■	■	■	■	■	■		
103	■	■	■	■	■	■	■	■	■	■	■	■	
123	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■	■	■	■
343	■	■	■	■	■	■	■	■	■	■	■	■	■
353	■	■	■	■	■	■	■	■	■	■	■	■	■
363	■	■	■	■	■	■	■	■	■	■	■	■	■
383	■	■	■	■	■	■	■	■	■	■	■	■	■
403	■	■	■	■	■	■	■	■	■	■	■	■	■
423	■	■	■	■	■	■	■	■	■	■	■	■	■
443	■	■	■	■	■	■	■	■	■	■	■	■	■
453	■	■	■	■	■	■	■	■	■	■	■	■	■
463	■	■	■	■	■	■	■	■	■	■	■	■	■
483	■	■	■	■	■	■	■	■	■	■	■	■	■
503	■	■	■	■	■	■	■	■	■	■	■	■	■

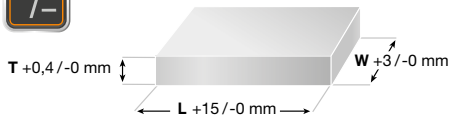
Technical properties

Hot work steel with excellent heat resistance and wear resistance. Good toughness and thermal conductivity. Can be cooled with water and is resistant to thermal shock. The ESR production (Electro Slag Remelted Steel) guarantees pureness and homogeneousness, as well as improved toughness. Working hardness: 50 - 54 HRC.

Applications

Forging tools and dies, hot shear knives, hot extrusion tools, extrusion press tools, press tools, block receivers, die casting tools, light metal die casting, press mandrels, press dies, piecer plugs, screw production, rivet production, bolts production, ejectors, plastic moulds.

Tolerances



Standard values

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,33 - 0,41	0,8 - 1,2	0,25 - 0,5	0 - 0,03	0 - 0,02	4,8 - 5,5	1,1 - 1,5	0,3 - 0,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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AISI / SAE H11 ESR – all at a glance!

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NAVIGATION/ STEEL GRADES

1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

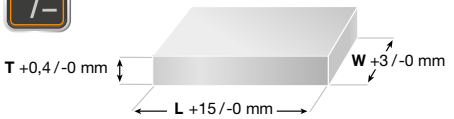
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.2316 – AISI / SAE 1.2316 (X38CrMo16)

€co-Präz® 300 [€co]
Length: 300 mm

WIDTH	THICKNESS [mm] 8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,33 - 0,45	0 - 1,0	0 - 1,5	0 - 0,03	0 - 0,03	15,5 - 17,5	0,8 - 1,3	0 - 1,0

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Direct access to our online shop

www.premium-steel.eu/2316-3-5

Technical properties

Tempered, corrosion resistant, polishable chromium steel. Heat and wear resistant. Often used for tools for processing chemically aggressive plastic materials (e.g. PVC). Working hardness: approx. 30 HRC (delivery condition) up to 48 HRC.

Applications

Mechanical engineering, marine engineering, apparatus engineering, plastic processing, plastic moulds, extrusion tools, press moulds, fitting tools, shafts, spindles, bolts, pistons, valves, steam valves, water valves, beater bars, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

AISI / SAE 1.2316 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2316

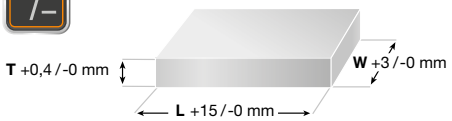
via smartphone / tablet:

PREMIUM 1.2316 – AISI / SAE 1.2316 (X38CrMo16)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,33 - 0,45	0 - 1,0	0 - 1,5	0 - 0,03	0 - 0,03	15,5 - 17,5	0,8 - 1,3	0 - 1,0

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Direct access to our online shop

www.premium-steel.eu/1.2316-5-5

Technical properties

Tempered, corrosion resistant, polishable chromium steel. Heat and wear resistant. Often used for tools for processing chemically aggressive plastic materials (e.g. PVC). Working hardness: approx. 30 HRC (delivery condition) up to 48 HRC.

Applications

Mechanical engineering, marine engineering, apparatus engineering, plastic processing, plastic moulds, extrusion tools, press moulds, fitting tools, shafts, spindles, bolts, pistons, valves, steam valves, water valves, beater bars, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

AISI / SAE 1.2316 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2316

via smartphone / tablet:

NAVIGATION/ STEEL GRADES

1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

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PRECISION!

ABRAMS®
PREMIUM STEEL

PREMIUM 1.2316 – AISI / SAE 1.2316 (X38CrMo16)

Precision round steel without machining allowance [PRS]
Specification: bright drawn / ground, ISO h9

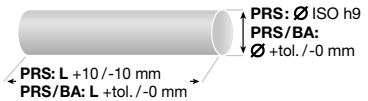
Ø [mm]	LENGTH [mm] 1.000
	Available dimensions [•]
16,0	•
18,0	•
20,0	•
22,0	•
25,0	•
28,0	•
30,0	•
35,0	•
40,0	•
45,0	•
50,0	•

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20,5	•	•
25,5	•	•
30,5	•	•
35,5	•	•
40,5	•	•
45,5	•	•
50,5	•	•
55,5	•	•
60,5	•	•
65,5		•
70,5		•
75,5		•
80,5		•
85,5		•
90,5		•
95,5		•
100,5		•

Larger diameters, up to 550,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,33 - 0,45	0 - 1,0	0 - 1,5	0 - 0,03	0 - 0,03	15,5 - 17,5	0,8 - 1,3	0 - 1,0

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us
T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop
[PRS]
www.premium-steel.eu/2316-6
[PRS/BA]
www.premium-steel.eu/2316-7

Technical properties
Tempered, corrosion resistant, polishable chromium steel. Heat and wear resistant. Often used for tools for processing chemically aggressive plastic materials (e.g. PVC). Working hardness: approx. 30 HRC (delivery condition) up to 48 HRC.

Applications
Mechanical engineering, marine engineering, apparatus engineering, plastic processing, plastic moulds, extrusion tools, press moulds, fitting tools, shafts, spindles, bolts, pistons, valves, steam valves, water valves, beater bars, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

AISI / SAE 1.2316 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2316

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

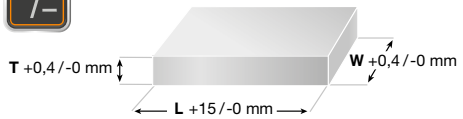
PREMIUM 1.2312 – AISI / SAE P20+S (40CrMnMoS8-6)

Precision flat steel with machining allowance [PFS/BA]
Length: 500 mm

WIDTH	THICKNES [mm] 4,2	5,2	6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3
	Available dimensions [■]																		
10,3					■														
12,3						■													
15,3							■												
16,3								■											
20,3			■	■	■	■	■		■										
25,3			■	■	■	■	■	■	■	■									
30,3			■	■	■	■	■	■	■	■	■								
32,3			■	■	■	■	■	■	■	■		■							
40,3	■	■	■	■	■	■	■	■	■	■	■		■						
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
60,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
63,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
70,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■
125,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
150,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
175,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
180,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
220,3					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3					■	■	■	■	■	■	■	■	■	■	■	■	■		
300,3					■	■	■	■	■	■	■	■	■	■	■	■	■		
400,3					■	■	■	■	■	■	■	■	■	■	■				
500 *					■	■	■	■	■	■	■	■	■	■	■				

* Width and length sawn/raw with +tol./-0 mm

Tolerances



Standard values

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0,35 - 0,45	0,3 - 0,5	1,4 - 1,6	0 - 0,03	0,05 - 0,1	1,8 - 2,0	0,15 - 0,25

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/P20S-3

Technical properties

Pre-hardened cold work steel and plastic mould steel. Good machinability, although less polishable and more difficult to etch, due to added sulphur. High through-hardenability and uniform component strength. Working hardness: approx. 32 HRC (delivery condition) up to 50 HRC.

Applications

Mechanical engineering, jigs, base plates, assembling parts, moulding frames, plastic moulds, plastic processing, die casting moulds, hydroforming tools, recipient sleeves, folding bars, tool holders.

AISI / SAE P20+S – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/P20S

via smartphone/tablet:

PREMIUM 1.2312 – AISI / SAE P20+S (40CrMnMoS8-6)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

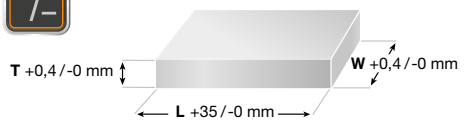
WIDTH	THICKNESS [mm] 4,2	5,2	6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3
	Available dimensions [■]																		
10,3					■														
12,3						■													
15,3							■												
16,3								■											
20,3			■	■	■	■	■		■										
25,3			■	■	■	■	■	■	■	■									
30,3			■	■	■	■	■	■	■	■	■								
32,3			■	■	■	■	■	■	■	■		■							
40,3	■	■	■	■	■	■	■	■	■	■	■		■						
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
60,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
63,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
70,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■
125,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
150,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
160,3					■	■		■	■										
175,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
180,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
220,3					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3					■	■	■	■	■	■	■	■	■	■	■	■	■		
300,3					■	■	■	■	■	■	■	■	■	■	■	■	■		
400,3					■	■	■	■	■	■	■	■	■	■	■				
500 *					■	■	■	■	■	■	■	■	■	■	■				

* Width and length sawn/raw with +tol./-0 mm

Technical properties
Pre-hardened cold work steel and plastic mould steel. Good machinability, although less polishable and more difficult to etch, due to added sulphur. High through-hardenability and uniform component strength. Working hardness: approx. 32 HRC (delivery condition) up to 50 HRC.

Applications
Mechanical engineering, jigs, base plates, assembling parts, moulding frames, plastic moulds, plastic processing, die casting moulds, hydroforming tools, recipient sleeves, folding bars, tool holders.

Tolerances



Standard values
Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0,35 - 0,45	0,3 - 0,5	1,4 - 1,6	0 - 0,03	0,05 - 0,1	1,8 - 2,0	0,15 - 0,25

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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www.premium-steel.eu/P20S-4

AISI / SAE P20+S – all at a glance!
Datasheets, online shop, ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/P20S

via smartphone/tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM QUALITY – OUR HIGHEST STANDARD!

ABRAMS® PREMIUM STEEL

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PREMIUM 1.2312 – AISI / SAE P20+S (40CrMnMoS8-6)

Precision round steel without machining allowance [PRS]
Specification: bright ground, ISO h8

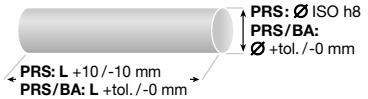
Ø [mm]	LENGTH [mm] 1.000
	Available dimensions [•]
6,0	●
8,0	●
10,0	●
12,0	●
14,0	●
15,0	●
16,0	●
18,0	●
20,0	●

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20,5	●	●
25,5	●	●
30,5	●	●
35,5	●	●
40,5	●	●
45,5	●	●
50,5	●	●
55,5	●	●
60,5	●	●
65,5		●
70,5		●
75,5		●
80,5		●
85,5		●
90,5		●
95,5		●
100,5		●

Larger diameters, up to 400,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0,35 - 0,45	0,3 - 0,5	1,4 - 1,6	0 - 0,03	0,05 - 0,1	1,8 - 2,0	0,15 - 0,25

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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Direct access to our online shop
[PRS]
www.premium-steel.eu/P20S-6
[PRS/BA]
www.premium-steel.eu/P20S-7

Technical properties
Pre-hardened cold work steel and plastic mould steel. Good machinability, although less polishable and more difficult to etch, due to added sulphur. High through-hardenability and uniform component strength. Working hardness: approx. 32 HRC (delivery condition) up to 50 HRC.

Applications
Mechanical engineering, jigs, base plates, assembling parts, moulding frames, plastic moulds, plastic processing, die casting moulds, hydroforming tools, recipient sleeves, folding bars, tool holders.

AISI / SAE P20+S – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/P20S

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

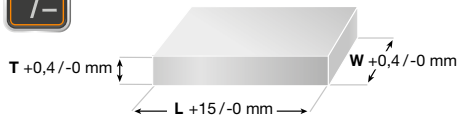
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.2311 – AISI / SAE P20 (40CrMnMo7)

Precision flat steel with machining allowance [PFS/BA]
Length: 500 mm

WIDTH	THICKNESS [mm] 6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3
	Available dimensions [■]											
12,3				■								
16,3						■						
20,3		■	■	■	■		■					
25,3		■	■	■	■	■	■	■				
30,3		■	■	■	■	■	■	■				
32,3	■	■	■	■	■	■	■	■		■		
40,3	■	■	■	■	■	■	■	■	■			
50,3	■	■	■	■	■	■	■	■	■	■	■	
60,3	■	■	■	■	■	■	■	■	■	■	■	■
63,3	■	■	■	■	■	■	■	■	■	■	■	■
70,3	■	■	■	■	■	■	■	■	■	■	■	■
80,3	■	■	■	■	■	■	■	■	■	■	■	■
100,3	■	■	■	■	■	■	■	■	■	■	■	■
125,3		■	■	■	■	■	■	■	■	■	■	■
150,3		■	■	■	■	■	■	■	■	■	■	■
175,3		■	■	■	■	■	■	■	■	■	■	■
200,3		■	■	■	■	■	■	■	■	■	■	■
220,3			■	■	■	■	■	■	■	■	■	■
250,3			■	■	■	■	■	■	■	■	■	■
300,3			■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0,35 - 0,45	0,2 - 0,4	1,3 - 1,6	0 - 0,035	0 - 0,035	1,8 - 2,1	0,15 - 0,25

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Direct access to our online shop

www.premium-steel.eu/P20-3

Technical properties

Pre-hardened cold work steel and plastic mould steel. Good polishability and etchability. High through-hardenability and uniform component strength. Working hardness: approx. 32 HRC (delivery condition) up to 50 HRC.

Applications

Mechanical engineering, jigs, base plates, assembling parts, moulding frames, plastic moulds, plastic processing, injection moulds, die casting moulds, hydroforming tools, recipient sleeves, intermediate sleeves, folding bars, tool holders, extrusion presses, tube presses, die holders, die insert.

AISI / SAE P20 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/P20

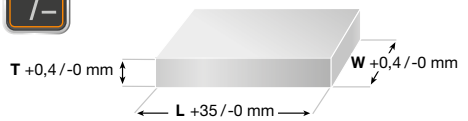
via smartphone/tablet:

PREMIUM 1.2311 – AISI / SAE P20 (40CrMnMo7)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]											
	6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3
	Available dimensions [■]											
12,3				■								
16,3						■						
20,3		■	■	■	■		■					
25,3		■	■	■	■	■	■	■				
30,3		■	■	■	■	■	■	■				
32,3	■	■	■	■	■	■	■	■		■		
40,3	■	■	■	■	■	■	■	■	■			
50,3	■	■	■	■	■	■	■	■	■	■	■	
60,3	■	■	■	■	■	■	■	■	■	■	■	■
63,3	■	■	■	■	■	■	■	■	■	■	■	■
70,3	■	■	■	■	■	■	■	■	■	■	■	■
80,3	■	■	■	■	■	■	■	■	■	■	■	■
100,3	■	■	■	■	■	■	■	■	■	■	■	■
125,3		■	■	■	■	■	■	■	■	■	■	■
150,3		■	■	■	■	■	■	■	■	■	■	■
175,3		■	■	■	■	■	■	■	■	■	■	■
200,3		■	■	■	■	■	■	■	■	■	■	■
220,3			■	■	■	■	■	■	■	■	■	■
250,3			■	■	■	■	■	■	■	■	■	■
300,3			■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0,35 - 0,45	0,2 - 0,4	1,3 - 1,6	0 - 0,035	0 - 0,035	1,8 - 2,1	0,15 - 0,25

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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Direct access to our online shop

www.premium-steel.eu/P20-4

Technical properties

Pre-hardened cold work steel and plastic mould steel. Good polishability and etchability. High through-hardenability and uniform component strength. Working hardness: approx. 32 HRC (delivery condition) up to 50 HRC.

Applications

Mechanical engineering, jigs, base plates, assembling parts, moulding frames, plastic moulds, plastic processing, injection moulds, die casting moulds, hydroforming tools, recipient sleeves, intermediate sleeves, folding bars, tool holders, extrusion presses, tube presses, die holders, die insert.

AISI / SAE P20 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/P20

via smartphone/tablet:

NAVIGATION/ STEEL GRADES

1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

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ABRAMS!® PREMIUM STEEL

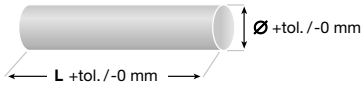
PREMIUM 1.2311 – AISI / SAE P20 (40CrMnMo7)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

	LENGTH [mm]	
	500	1.000
Ø [mm]	Available dimensions [•]	
20,5	•	•
25,5	•	•
30,5	•	•
35,5	•	•
40,5	•	•
45,5	•	•
50,5	•	•
55,5	•	•
60,5	•	•
65,5		•
70,5		•
75,5		•
80,5		•
85,5		•
90,5		•
95,5		•
100,5		•

Larger diameters, up to 400,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0,35 - 0,45	0,2 - 0,4	1,3 - 1,6	0 - 0,035	0 - 0,035	1,8 - 2,1	0,15 - 0,25

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/P20-7

Technical properties
Pre-hardened cold work steel and plastic mould steel. Good polishability and etchability. High through-hardenability and uniform component strength. Working hardness: approx. 32 HRC (delivery condition) up to 50 HRC.

Applications
Mechanical engineering, jigs, base plates, assembling parts, moulding frames, plastic moulds, plastic processing, injection moulds, die casting moulds, hydroforming tools, recipient sleeves, intermediate sleeves, folding bars, tool holders, extrusion presses, tube presses, die holders, die insert.

AISI / SAE P20 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/P20

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

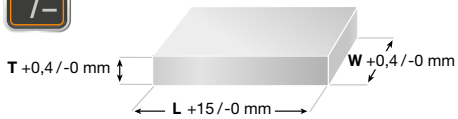
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.2294 – AISI / SAE 1.2294 (~X5CrS12)

Precision flat steel with machining allowance [PFS/BA]
Length: 500 mm

WIDTH	THICKNESS [mm] 6,2	8,2	10,3	15,3	20,3	25,3	30,3	40,3	50,3
	Available dimensions [■]								
20,3	■	■	■						
25,3	■	■	■	■					
30,3	■	■	■	■	■				
40,3	■	■	■	■	■	■			
50,3	■	■	■	■	■	■	■		
60,3	■	■	■	■	■	■	■	■	
80,3	■	■	■	■	■	■	■	■	■
100,3	■	■	■	■	■	■	■	■	■
125,3	■	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■	
300,3	■	■	■	■	■	■	■	■	

Tolerances



Standard values

Delivery condition: maximum 330 HB
Chemical composition: (+additives):

C	Mn	S	Cr
0,05 - 0,05	1,3 - 1,3	0,15 - 0,15	12,5 - 12,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
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Direct access to our online shop

www.premium-steel.eu/2294-3

Technical properties

Pre-hardened, corrosion resistant plastic mould steel. Magnetisable, excellent machinability and good weldability. Resistant to aggressive plastics and humid conditions. Further heat treatment is not intended. Working hardness: approx. 33 HRC (reference value for delivery condition).

Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembling parts, moulding frames, plastic moulds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

AISI / SAE 1.2294 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2294

via smartphone / tablet:

PREMIUM 1.2294 – AISI / SAE 1.2294 (~X5CrS12)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]																
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3
	Available dimensions [■]																
33	■	■	■	■	■	■											
43	■	■	■	■	■	■											
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
343	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
353	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
363	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
383	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
403	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
423	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
443	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
453	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
463	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
483	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
503	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

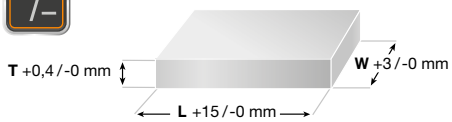
Technical properties

Pre-hardened, corrosion resistant plastic mould steel. Magnetisable, excellent machinability and good weldability. Resistant to aggressive plastics and humid conditions. Further heat treatment is not intended. Working hardness: approx. 33 HRC (reference value for delivery condition).

Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembling parts, moulding frames, plastic moulds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

Tolerances



Standard values

Delivery condition: maximum 330 HB
Chemical composition: (+ additives):

C	Mn	S	Cr
0,05 - 0,05	1,3 - 1,3	0,15 - 0,15	12,5 - 12,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/2294-5

AISI / SAE 1.2294 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2294

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

CORROSION RESISTANT STEEL!

ABRAMS® PREMIUM STEEL

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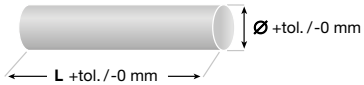
PREMIUM 1.2294 – AISI / SAE 1.2294 (~X5CrS12)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

	LENGTH [mm]	
	500	1.000
Ø [mm]	Available dimensions [•]	
35,5	●	●
45,5	●	●
55,5	●	●
65,5	●	●
85,5		●
90,5		●
100,5		●

Larger diameters, up to 180,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 330 HB
Chemical composition: (+ additives):

C	Mn	S	Cr
0,05 - 0,05	1,3 - 1,3	0,15 - 0,15	12,5 - 12,5

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/2294-7

Technical properties

Pre-hardened, corrosion resistant plastic mould steel. Magnetisable, excellent machinability and good weldability. Resistant to aggressive plastics and humid conditions. Further heat treatment is not intended. Working hardness: approx. 33 HRC (reference value for delivery condition).

Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembling parts, moulding frames, plastic moulds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

AISI / SAE 1.2294 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2294

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PRECISION ROUND STEEL WITHOUT MACHINING ALLOWANCE – ISO h8, h9, h11

ABRAMS® PREMIUM STEEL

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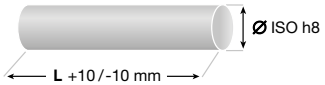
PREMIUM 1.2210 – AISI / SAE L2 (115CrV3)

Precision round steel without machining allowance / Silver Steel [PRS]
Specification: bright ground, ISO h8

Ø [mm]	LENGTH [mm] 1.000							
	Available dimensions [•]							
1,0	•	»		»		»		
1,2	•	6,2	•	11,2	•	19,5	•	
1,5	•	6,5	•	11,5	•	20,0	•	
1,7	•	6,7	•	11,7	•	21,0	•	
2,0	•	7,0	•	12,0	•	22,0	•	
2,2	•	7,2	•	12,2	•	23,0	•	
2,5	•	7,5	•	12,5	•	24,0	•	
2,7	•	7,7	•	12,7	•	25,0	•	
3,0	•	8,0	•	13,0	•	26,0	•	
3,2	•	8,2	•	13,5	•	27,0	•	
3,5	•	8,5	•	14,0	•	28,0	•	
3,7	•	8,7	•	14,5	•	29,0	•	
4,0	•	9,0	•	15,0	•	30,0	•	
4,2	•	9,2	•	15,5	•	35,0	•	
4,5	•	9,5	•	16,0	•	40,0	•	
4,7	•	9,7	•	16,5	•	45,0	•	
5,0	•	10,0	•	17,0	•	50,0	•	
5,2	•	10,2	•	17,5	•	55,0	•	
5,5	•	10,5	•	18,0	•	60,0	•	
5,7	•	10,7	•	18,5	•			
6,0	•	11,0	•	19,0	•			
»		»		»				

Technical properties
Cold work steel that can be used for a wide range of applications. Good machinability, high hardenability and wear resistance. Generally used for round dies. Working hardness: 58 - 62 HRC.

Applications
Twist drills, screw taps, reamers, milling cutters, countersinks, centre drills, scrapers, engraving tools, punches, ejectors, guide pins, wood chisels, bushes, gauges, jigs, construction parts.

Tolerances


Standard values
Delivery condition: maximum 220 HB
Chemical composition:

C	Si	Mn	P	S	Cr	V
1,1 - 1,25	0,15 - 0,3	0,2 - 0,4	0 - 0,03	0 - 0,03	0,5 - 0,8	0,07 - 0,12

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us
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E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/L2-6

AISI / SAE L2 – all at a glance!
Datasheets, online shop, ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/L2

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PERFECTION !

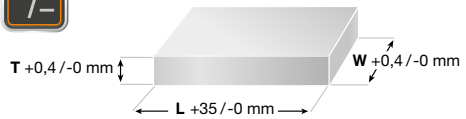
PREMIUM 1.2162 – AISI / SAE 1.2162 (21MnCr5)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]															
	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	36,3	40,3	50,3	60,3	70,3	80,3	100,3
	Available dimensions [■]															
15,3				■												
20,3	■	■	■	■	■	■										
25,3	■	■	■	■	■	■	■									
30,3	■	■	■	■	■	■	■	■								
32,3	■	■	■	■	■	■	■	■	■							
40,3	■	■	■	■	■	■	■	■		■	■					
50,3	■	■	■	■	■	■	■	■		■	■	■				
60,3	■	■	■	■	■	■	■	■		■	■	■	■			
70,3	■	■	■	■	■	■	■	■		■	■	■	■	■		
80,3	■	■	■	■	■	■	■	■		■	■	■	■		■	
100,3	■	■	■	■	■	■	■	■		■	■	■	■			■
120,3	■	■	■	■	■	■	■	■		■	■	■	■			
150,3	■	■	■	■	■	■	■	■		■	■	■	■			
180,3	■	■	■	■	■	■	■	■		■	■	■	■			
200,3	■	■	■	■	■	■	■	■		■	■	■	■			
250,3	■	■	■	■	■	■	■	■		■	■	■	■			
300,3	■	■	■	■	■	■	■	■		■	■	■	■			
500 *		■	■	■	■	■	■	■		■	■	■	■			

* Width and length sawn/raw with +tol./-0 mm

Tolerances



Standard values

Delivery condition: maximum 217 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,18 - 0,24	0,15 - 0,35	1,1 - 1,4	0 - 0,03	0 - 0,03	1,0 - 1,3

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/2162-4

Technical properties

Cold work steel and plastic mould steel. High surface hardness with high core toughness. Exellent machinability, good cold hobbing and polishing properties. The even component strength is a result of the combination of hardened surface and high core toughness. Surface working hardness: 58-60 HRC.

Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic moulds, synthetic resin mould tools, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, cardan joints.

AISI / SAE 1.2162 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2162

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

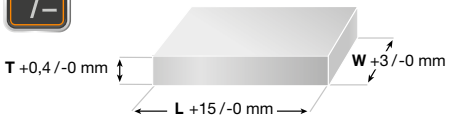
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.2162 – AISI / SAE 1.2162 (21MnCr5)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm] 6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3
	Available dimensions [■]									
33	■	■	■	■	■	■	■	■		
43	■	■	■	■	■	■	■	■	■	
53	■	■	■	■	■	■	■	■	■	■
63	■	■	■	■	■	■	■	■	■	■
73	■	■	■	■	■	■	■	■	■	■
83	■	■	■	■	■	■	■	■	■	■
93	■	■	■	■	■	■	■	■	■	■
103	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■
343	■	■	■	■	■	■	■	■	■	■
353	■	■	■	■	■	■	■	■	■	■
363	■	■	■	■	■	■	■	■	■	■
383	■	■	■	■	■	■	■	■	■	■
403	■	■	■	■	■	■	■	■	■	■
423	■	■	■	■	■	■	■	■	■	■
443	■	■	■	■	■	■	■	■	■	■
453	■	■	■	■	■	■	■	■	■	■
463	■	■	■	■	■	■	■	■	■	■
483	■	■	■	■	■	■	■	■	■	■
503	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 217 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,18 - 0,24	0,15 - 0,35	1,1 - 1,4	0 - 0,03	0 - 0,03	1,0 - 1,3

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/2162-5

Technical properties

Cold work steel and plastic mould steel. High surface hardness with high core toughness. Exellent machinability, good cold hobbing and polishing properties. The even component strength is a result of the combination of hardened surface and high core toughness. Surface working hardness: 58 - 60 HRC.

Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic moulds, synthetic resin mould tools, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, cardan joints.

AISI / SAE 1.2162 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2162

via smartphone / tablet:

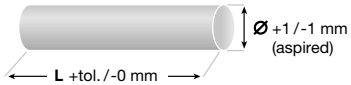
PREMIUM 1.2162 – AISI / SAE 1.2162 (21MnCr5)

Round steel [RS]
Specification: black

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20	•	•
22	•	•
25	•	•
30	•	•
35	•	•
40	•	•
45	•	•
50	•	•
55	•	•
60	•	•
65		•
70		•
75		•
80		•
85		•
90		•
100		•

Larger diameters, up to 200 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 217 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,18 - 0,24	0,15 - 0,35	1,1 - 1,4	0 - 0,03	0 - 0,03	1,0 - 1,3

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/2162-8

Technical properties

Cold work steel and plastic mould steel. High surface hardness with high core toughness. Exellent machinability, good cold hobbing and polishing properties. The even component strength is a result of the combination of hardened surface and high core toughness. Surface working hardness: 58 - 60 HRC.

Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic moulds, synthetic resin mould tools, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, cardan joints.

AISI / SAE 1.2162 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2162

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

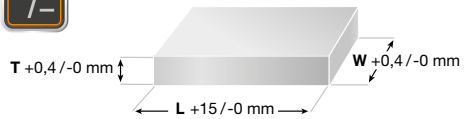
ABRAMS! PREMIUM STEEL®

PREMIUM 1.2099 – AISI / SAE 1.2099 (~X5CrS12)

Precision flat steel with machining allowance [PFS/BA]
Length: 500 mm

WIDTH	THICKNESS [mm] 6,2	8,2	10,3	15,3	20,3	25,3	30,3	40,3	50,3
	Available dimensions [■]								
20,3	■	■	■						
25,3	■	■	■	■					
30,3	■	■	■	■	■				
40,3	■	■	■	■	■	■			
50,3	■	■	■	■	■	■	■		
60,3	■	■	■	■	■	■	■	■	
80,3	■	■	■	■	■	■	■	■	■
100,3	■	■	■	■	■	■	■	■	■
125,3	■	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■	
300,3	■	■	■	■	■	■	■	■	

Tolerances



Standard values

Delivery condition: maximum 330 HB
Chemical composition (+additives):

C	Mn	S	Cr
0,05 - 0,05	1,0 - 1,0	0,12 - 0,12	12,5 - 12,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/2099-3

Technical properties

Pre-hardened, corrosion resistant plastic mould steel. Magnetisable, excellent machinability and good weldability. Resistant to aggressive plastics and humid conditions. Further heat treatment is not intended. Working hardness: approx. 33 HRC (reference value for delivery condition).

Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembling parts, moulding frames, plastic moulds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

AISI / SAE 1.2099 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2099

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

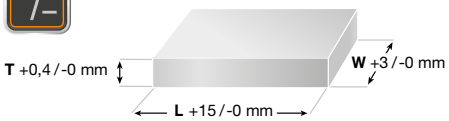
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.2099 – AISI / SAE 1.2099 (~X5CrS12)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]																
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3
	Available dimensions [■]																
33	■	■	■	■	■	■											
43	■	■	■	■	■	■											
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
343	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
353	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
363	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
383	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
403	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
423	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
443	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
453	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
463	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
483	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
503	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 330 HB
Chemical composition (+additives):

C	Mn	S	Cr
0,05 - 0,05	1,0 - 1,0	0,12 - 0,12	12,5 - 12,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/2099-5

Technical properties

Pre-hardened, corrosion resistant plastic mould steel. Magnetisable, excellent machinability and good weldability. Resistant to aggressive plastics and humid conditions. Further heat treatment is not intended. Working hardness: approx. 33 HRC (reference value for delivery condition).

Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembling parts, moulding frames, plastic moulds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

AISI / SAE 1.2099 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2099

via smartphone / tablet:

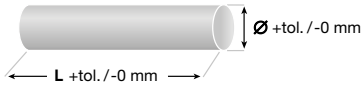
PREMIUM 1.2099 – AISI / SAE 1.2099 (~X5CrS12)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
35,5	●	●
45,5	●	●
55,5	●	●
65,5	●	●
85,5		●
90,5		●
100,5		●

Larger diameters, up to 180,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 330 HB
Chemical composition (+additives):

C	Mn	S	Cr
0,05 - 0,05	1,0 - 1,0	0,12 - 0,12	12,5 - 12,5

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/2099-7

Technical properties

Pre-hardened, corrosion resistant plastic mould steel. Magnetisable, excellent machinability and good weldability. Resistant to aggressive plastics and humid conditions. Further heat treatment is not intended. Working hardness: approx. 33 HRC (reference value for delivery condition).

Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembling parts, moulding frames, plastic moulds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

AISI / SAE 1.2099 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2099

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.2085/1.2099 – AISI / SAE 420FM/1.2099 (X33CrS16/~X5CrS12)

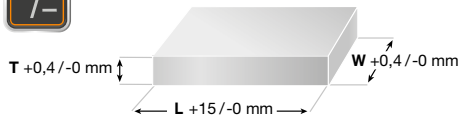
Precision flat steel with machining allowance [PFS/BA]
Length: 500 mm

WIDTH	THICKNESS [mm] 6,2	8,2	10,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	80,3
	Available dimensions [■]										
20,3	■	■	■	■	■						
25,3	■	■	■	■	■	■					
30,3	■	■	■	■	■	■	■				
40,3	■	■	■	■	■	■	■	■			
50,3	■	■	■	■	■	■	■	■	■		
60,3	■	■	■	■	■	■	■	■	■	■	
80,3	■	■	■	■	■	■	■	■	■	■	■
100,3	■	■	■	■	■	■	■	■	■	■	■
125,3	■	■	■	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■	■	■	■
300,3	■	■	■	■	■	■	■	■	■	■	■

*** Note:** AISI / SAE 420FM will be delivered in tempered condition (approx. 33 HRC). Therefore it can be easily substituted with AISI / SAE 1.2099.

If a higher working hardness is needed, please contact us!

Tolerances



Standard values (AISI / SAE 420FM)
Delivery condition: maximum 330 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni
0,28 - 0,38	0 - 1,0	0 - 1,4	0 - 0,03	0,05 - 0,1	15,0 - 17,0	0 - 1,0

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us
T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/420FM-3

Technical properties
Pre-hardened, corrosion-resistant plastic mould steel. Magnetisable with good machinability. Resistant to aggressive plastics and humid conditions. Because of the added sulphur it is easier to machine than steel grade AISI / SAE 1.2316. Further heat treatment is not intended. Working hardness: approx. 33 HRC (delivery condition) up to 48 HRC*.

Applications
Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembling parts, moulding frames, plastic moulds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

AISI / SAE 420FM – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/420FM

via smartphone/tablet:

PREMIUM 1.2085/1.2099 – AISI / SAE 420FM/1.2099 (X33CrS16/~X5CrS12)

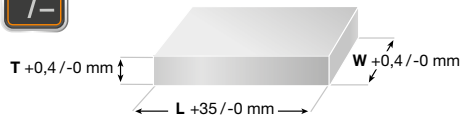
Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

	THICKNESS [mm]									
	8,2	10,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	80,3
WIDTH	Available dimensions [■]									
20,3	■	■	■	■						
25,3	■	■	■	■	■					
30,3	■	■	■	■	■	■				
40,3	■	■	■	■	■	■	■			
50,3	■	■	■	■	■	■	■	■		
60,3	■	■	■	■	■	■	■	■	■	
80,3	■	■	■	■	■	■	■	■	■	■
100,3	■	■	■	■	■	■	■	■	■	■
125,3	■	■	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■	■	■
300,3	■	■	■	■	■	■	■	■	■	■

*** Note:** AISI / SAE 420FM will be delivered in tempered condition (approx. 33 HRC). Therefore it can be easily substituted with AISI / SAE 1.2099.

If a higher working hardness is needed, please contact us!

Tolerances



Standard values (AISI / SAE 420FM)

Delivery condition: maximum 330 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni
0,28 - 0,38	0 - 1,0	0 - 1,4	0 - 0,03	0,05 - 0,1	15,0 - 17,0	0 - 1,0

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/420FM-4

Technical properties

Pre-hardened, corrosion-resistant plastic mould steel. Magnetisable with good machinability. Resistant to aggressive plastics and humid conditions. Because of the added sulphur it is easier to machine than steel grade AISI / SAE 1.2316. Further heat treatment is not intended. Working hardness: approx. 33 HRC (delivery condition) up to 48 HRC*.

Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembling parts, moulding frames, plastic moulds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

AISI / SAE 420FM – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/420FM

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

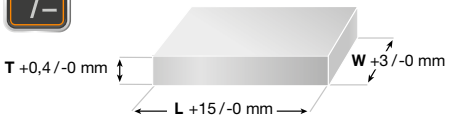
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.2085/1.2099 – AISI / SAE 420FM/1.2099 (X33CrS16/~X5CrS12)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]																
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3
	Available dimensions [■]																
33	■	■	■	■	■	■	■	■	■	■	■	■					
43	■	■	■	■	■	■	■	■	■	■	■	■	■				
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
343	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
353	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
363	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
383	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
403	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
423	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
443	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
453	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
463	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
483	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
503	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values (AISI / SAE 420FM)

Delivery condition: maximum 330 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni
0,28 - 0,38	0 - 1,0	0 - 1,4	0 - 0,03	0,05 - 0,1	15,0 - 17,0	0 - 1,0

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/420FM-5

Technical properties

Pre-hardened, corrosion-resistant plastic mould steel. Magnetisable with good machinability. Resistant to aggressive plastics and humid conditions. Because of the added sulphur it is easier to machine than steel grade AISI / SAE 1.2316. Further heat treatment is not intended. Working hardness: approx. 33 HRC (delivery condition) up to 48 HRC*.

Applications

Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembling parts, moulding frames, plastic moulds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

AISI / SAE 420FM – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/420FM

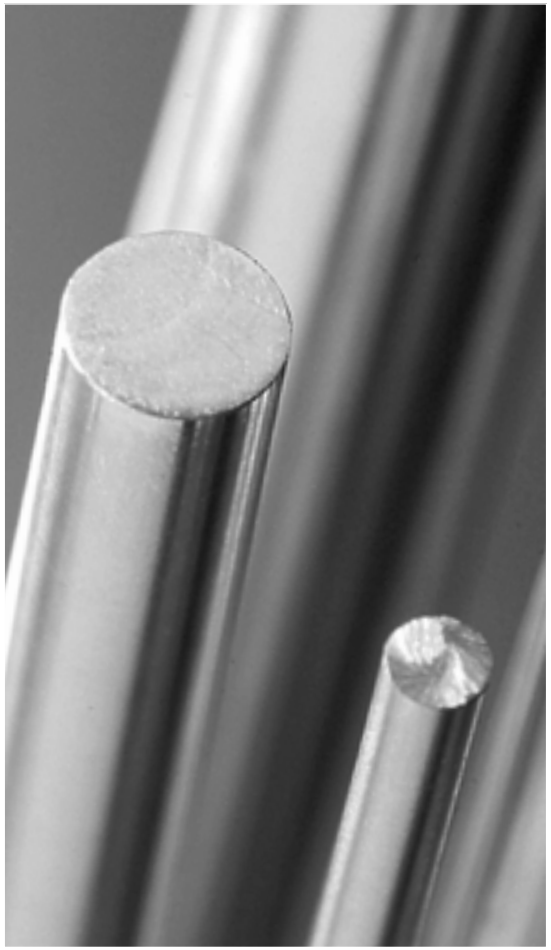
via smartphone/tablet:

PREMIUM 1.2085/1.2099 – AISI / SAE 420FM/1.2099 (X33CrS16/~X5CrS12)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
35,5	•	•
45,5	•	•
55,5	•	•
65,5	•	•
85,5		•
90,5		•
100,5		•

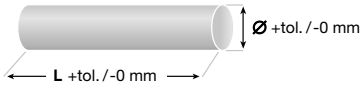
Larger diameters, up to 180,5 mm, and different lengths (e.g. round blanks) available on request!



*** Note:** AISI / SAE 420FM will be delivered in tempered condition (approx. 33 HRC). Therefore it can be easily substituted with AISI / SAE 1.2099.

If a higher working hardness is needed, please contact us!

Tolerances



Standard values (AISI / SAE 420FM)
Delivery condition: maximum 330 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni
0,28 - 0,38	0 - 1,0	0 - 1,4	0 - 0,03	0,05 - 0,1	15,0 - 17,0	0 - 1,0

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us
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E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/420FM-7

Technical properties
Pre-hardened, corrosion-resistant plastic mould steel. Magnetisable with good machinability. Resistant to aggressive plastics and humid conditions. Because of the added sulphur it is easier to machine than steel grade AISI / SAE 1.2316. Further heat treatment is not intended. Working hardness: approx. 33 HRC (delivery condition) up to 48 HRC*.

Applications
Mechanical engineering, apparatus engineering, plastic processing, injection tools, base plates, assembling parts, moulding frames, plastic moulds, extrusion tools, valves, steam valves, water valves, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical instruments.

AISI / SAE 420FM – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/420FM

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

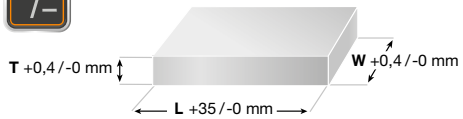
PREMIUM 1.2083 – AISI / SAE ~420 (X40Cr14)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]														
	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	70,3	80,3	100,3
	Available dimensions [■]														
15,3				■											
20,3	■	■	■	■	■	■									
25,3	■	■	■	■	■	■	■								
30,3	■	■	■	■	■	■	■	■							
32,3		■		■	■	■	■		■						
40,3	■	■	■	■	■	■	■	■	■	■					
50,3	■	■	■	■	■	■	■	■	■	■	■				
60,3	■	■	■	■	■	■	■	■	■	■	■	■			
70,3	■	■	■	■	■	■	■	■	■	■	■	■	■		
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
90,3	■	■	■	■		■	■	■	■	■	■	■	■	■	
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
120,3		■	■	■	■	■	■	■	■	■	■	■	■	■	■
130,3		■	■	■	■	■	■	■	■	■	■	■	■	■	■
140,3		■	■	■		■	■	■	■	■	■	■	■	■	■
150,3		■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3		■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3		■	■	■	■	■	■	■	■	■					
300,3		■	■	■	■	■	■	■	■						
500 *		■	■	■	■	■	■	■	■	■	■				

* Width and length sawn/raw with +tol./-0 mm

Tolerances



Standard values
Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,36 - 0,42	0 - 1,0	0 - 1,0	0 - 0,03	0 - 0,03	12,5 - 14,5

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us
T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/420-4

Technical properties
Corrosion-resistant cold work steel and plastic mould steel, good machinability. Can be hardened and polished. Low distortion through-hardening steel with high hardness and high wear resistance. For maximum required polishability use the ESR (Electro Slag Remelted Steel) production.
Working hardness: 50-55 HRC.

Applications
Mechanical engineering, medical technology, plastic moulds, synthetic resin mould tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.

AISI / SAE 420 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/420

via smartphone/tablet:

PREMIUM 1.2083 – AISI / SAE ~420 (X40Cr14)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]													
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3
	Available dimensions [■]													
33	■	■	■	■	■	■	■	■	■	■	■	■		
43	■	■	■	■	■	■	■	■	■	■	■	■	■	
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■	■	■	■	■
343	■	■	■	■	■	■	■	■	■	■	■	■	■	■
353	■	■	■	■	■	■	■	■	■	■	■	■	■	■
363	■	■	■	■	■	■	■	■	■	■	■	■	■	■
383	■	■	■	■	■	■	■	■	■	■	■	■	■	■
403	■	■	■	■	■	■	■	■	■	■	■	■	■	■
423	■	■	■	■	■	■	■	■	■	■	■	■	■	■
443	■	■	■	■	■	■	■	■	■	■	■	■	■	■
453	■	■	■	■	■	■	■	■	■	■	■	■	■	■
463	■	■	■	■	■	■	■	■	■	■	■	■	■	■
483	■	■	■	■	■	■	■	■	■	■	■	■	■	■
503	■	■	■	■	■	■	■	■	■	■	■	■	■	■

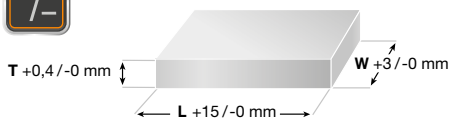
Technical properties

Corrosion-resistant cold work steel and plastic mould steel, good machinability. Can be hardened and polished. Low distortion through-hardening steel with high hardness and high wear resistance. For maximum required polishability use the ESR (Electro Slag Remelted Steel) production.
Working hardness: 50-55 HRC.

Applications

Mechanical engineering, medical technology, plastic moulds, synthetic resin mould tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.

Tolerances



Standard values

Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,36 - 0,42	0 - 1,0	0 - 1,0	0 - 0,03	0 - 0,03	12,5 - 14,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/420-5

AISI / SAE 420 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/420

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.2083 – AISI / SAE ~420 (X40Cr14)

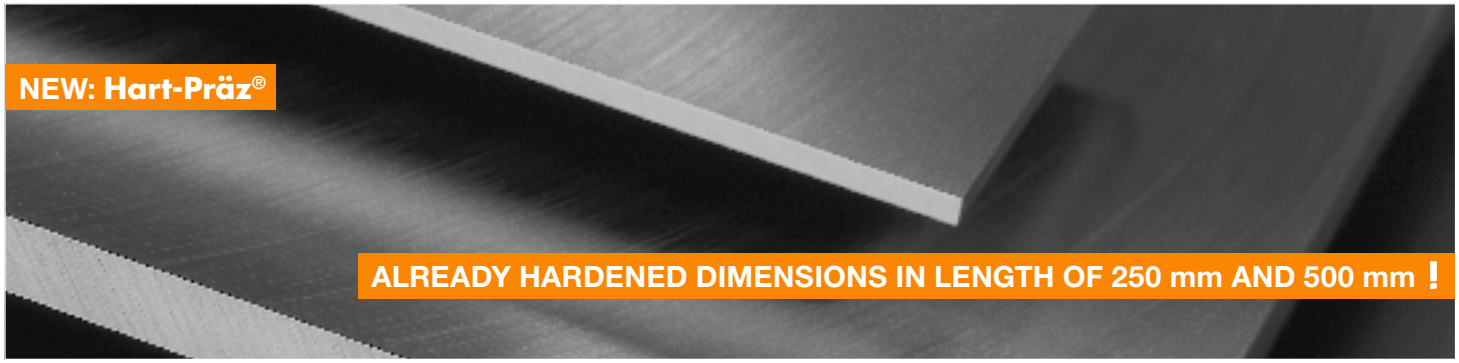
Hart-Präz® 250 [Hart]
Length: 250 mm

	THICKNESS [mm]												
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2
WIDTH	Available dimensions [■]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

Hart-Präz® 500 [Hart]
Length: 500 mm

	THICKNESS [mm]												
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2
WIDTH	Available dimensions [■]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

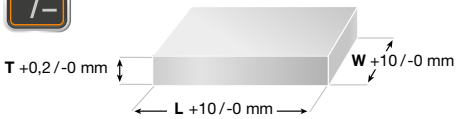
Hardened dimensions are delivered with approx. 50 HRC, at least 2x tempered.



Technical properties
Corrosion-resistant cold work steel and plastic mould steel, good machinability. Can be hardened and polished. Low distortion through-hardening steel with high hardness and high wear resistance. For maximum required polishability use the ESR (Electro Slag Remelted Steel) production.
Working hardness: 50 - 55 HRC.

Applications
Mechanical engineering, medical technology, plastic moulds, synthetic resin mould tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.

Tolerances



Standard values
Lieferzustand: ca. 50 HRC
Chemical composition:

C	Si	Mn	P	S	Cr
0,36 - 0,42	0 - 1,0	0 - 1,0	0 - 0,03	0 - 0,03	12,5 - 14,5

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/420-11-H

AISI / SAE 420 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/420

via smartphone/tablet:

PREMIUM 1.2083 – AISI / SAE ~420 (X40Cr14)

Precision round steel without machining allowance [PRS]
Specification: bright drawn / ground, ISO h9

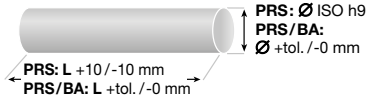
Ø [mm]	LENGTH [mm] 1.000
	Available dimensions [•]
15,0	●
16,0	●
18,0	●
20,0	●
25,0	●
30,0	●
35,0	●
40,0	●
45,0	●
50,0	●

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20,5	●	●
25,5	●	●
30,5	●	●
35,5	●	●
40,5	●	●
45,5	●	●
50,5	●	●
55,5	●	●
60,5	●	●
65,5		●
70,5		●
80,5		●
85,5		●
90,5		●
100,5		●

Larger diameters, up to 400,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,36 - 0,42	0 - 1,0	0 - 1,0	0 - 0,03	0 - 0,03	12,5 - 14,5

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

[PRS]
www.premium-steel.eu/420-6
[PRS/BA]
www.premium-steel.eu/420-7

Technical properties

Corrosion-resistant cold work steel and plastic mould steel, good machinability. Can be hardened and polished. Low distortion through-hardening steel with high hardness and high wear resistance. For maximum required polishability use the ESR (Electro Slag Remelted Steel) production.
Working hardness: 50-55 HRC.

Applications

Mechanical engineering, medical technology, plastic moulds, synthetic resin mould tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.

AISI / SAE 420 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/420

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

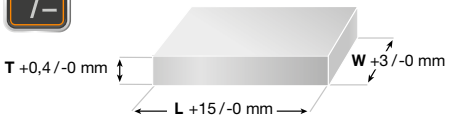
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.2083 ESU – AISI / SAE 420 ESR (X40Cr14)

€co-Präz® 300 [€co]
Length: 300 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,36 - 0,42	0 - 1,0	0 - 1,0	0 - 0,03	0 - 0,03	12,5 - 14,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Direct access to our online shop

www.premium-steel.eu/420ESR-3-5

Technical properties

Corrosion-resistant cold work steel and plastic mould steel, good machinability, good hardenability and excellent polishing properties. Low distortion through-hardening steel with high hardness and high wear resistance. For maximum required polishability use the ESR (Electro Slag Remelted Steel) production.
Working hardness: 50-55 HRC.

Applications

Mechanical engineering, medical technology, plastic moulds, synthetic resin mould tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.

AISI / SAE 420 ESR – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/420ESR

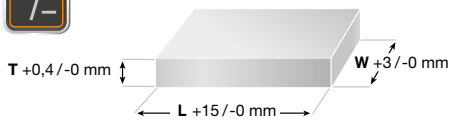
via smartphone/tablet:

PREMIUM 1.2083 ESU – AISI / SAE 420 ESR (X40Cr14)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,36 - 0,42	0 - 1,0	0 - 1,0	0 - 0,03	0 - 0,03	12,5 - 14,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
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www.premium-steel.eu/420ESR-5-5

Technical properties

Corrosion-resistant cold work steel and plastic mould steel, good machinability, good hardenability and excellent polishing properties. Low distortion through-hardening steel with high hardness and high wear resistance. For maximum required polishability use the ESR (Electro Slag Remelted Steel) production.
Working hardness: 50-55 HRC.

Applications

Mechanical engineering, medical technology, plastic moulds, synthetic resin mould tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.

AISI / SAE 420 ESR – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/420ESR

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

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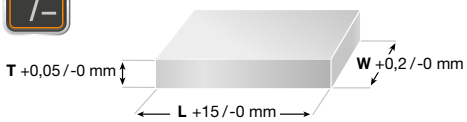
PREMIUM 1.2080 mod. – AISI / SAE D3 mod. (~X210Cr12)

Precision flat steel without machining allowance, DIN 59350 [PFS]
Length: 500 mm

WIDTH	THICKNESS [mm] 2,0	3,0	4,0	5,0	6,0	8,0	10,0	12,0	15,0	20,0
	Available dimensions [■]									
20,0	■	■	■	■	■	■	■	■	■	
25,0	■	■	■	■	■	■	■	■	■	■
30,0	■	■	■	■	■	■	■	■	■	■
40,0	■	■	■	■	■	■	■	■	■	■
50,0	■	■	■	■	■	■	■	■	■	■
60,0	■	■	■	■	■	■	■	■	■	■
80,0	■	■	■	■	■	■	■	■	■	■
100,0	■	■	■	■	■	■	■	■	■	■
125,0	■	■	■	■	■	■	■	■	■	■
150,0	■	■	■	■	■	■	■	■	■	■
200,0	■	■	■	■	■	■	■	■		

Tolerances



Standard values

Delivery condition: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	W
1,9 - 2,2	0,1 - 0,6	0,2 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	≤ 0,8

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
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www.premium-steel.eu/D3mod-1

Technical properties

Cold work steel with excellent wear resistance, due to its high chromium carbide content, and excellent cutting power (for laminations up to a thickness of 4 mm). Full hardenability, dimensional stability but medium toughness. The classic among the ledeburite 12% chromium steels.
Working hardness: 58-62 HRC.

Applications

Blanking tools, stamping tools, embossing tools, scraping tools, trimming tools, woodworking tools, drawing tools, press tools, stone moulds, sintered tools, machine knives, hammer cores, ring rollers, thread rolling dies, plastic moulds.

AISI / SAE D3 mod.– all at a glance!

Datasheets, online shop, ABRAMS STEEL GUIDE® for alternatives:
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via smartphone / tablet:

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1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

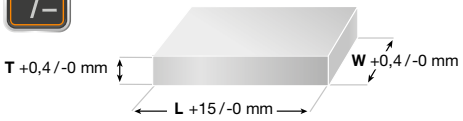
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.2080 mod. – AISI / SAE D3 mod. (~X210Cr12)

Precision flat steel with machining allowance [PFS/BA]
Length: 500 mm

WIDTH	THICKNESS [mm] 2,2	3,2	4,2	5,2	6,2	8,2	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3
	Available dimensions [■]													
8,2						■								
10,3	■	■	■	■	■	■	■							
12,3								■						
15,3	■	■	■	■	■	■	■	■	■					
20,3	■	■	■	■	■	■	■	■	■	■				
25,3	■	■	■	■	■	■	■	■	■	■	■			
30,3	■	■	■	■	■	■	■	■	■	■	■	■		
40,3	■	■	■	■	■	■	■	■	■	■	■	■	■	
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
60,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
125,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■
300,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	W
1,9 - 2,2	0,1 - 0,6	0,2 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	≤ 0,8

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Technical properties

Cold work steel with excellent wear resistance, due to its high chromium carbide content, and excellent cutting power (for laminations up to a thickness of 4 mm). Full hardenability, dimensional stability but medium toughness. The classic among the ledeburite 12% chromium steels.
Working hardness: 58-62 HRC.

Applications

Blanking tools, stamping tools, embossing tools, scraping tools, trimming tools, woodworking tools, drawing tools, press tools, stone moulds, sintered tools, machine knives, hammer cores, ring rollers, thread rolling dies, plastic moulds.

AISI / SAE D3 mod.– all at a glance!

Datasheets, online shop,
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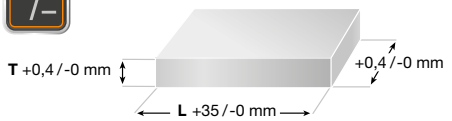
via smartphone/tablet:

PREMIUM 1.2080 mod. – AISI / SAE D3 mod. (~X210Cr12)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]															
	2,2	3,2	4,2	5,2	6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3
	Available dimensions [■]															
8,2						■										
10,3	■	■	■	■	■	■	■									
12,3								■								
15,3	■	■	■	■	■	■	■	■	■							
16,3										■						
20,3	■	■	■	■	■	■	■	■	■		■					
25,3	■	■	■	■	■	■	■	■	■	■	■	■				
30,3	■	■	■	■	■	■	■	■	■	■	■	■	■			
32,3	■	■	■	■	■	■	■	■	■	■	■	■		■		
40,3	■	■	■	■	■	■	■	■	■	■	■	■	■		■	
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
60,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
63,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
125,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
150,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
160,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
175,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
300,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
315,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	W
1,9 - 2,2	0,1 - 0,6	0,2 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	≤ 0,8

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Technical properties

Cold work steel with excellent wear resistance, due to its high chromium carbide content, and excellent cutting power (for laminations up to a thickness of 4 mm). Full hardenability, dimensional stability but medium toughness. The classic among the ledeburite 12% chromium steels.
Working hardness: 58-62 HRC.

Applications

Blanking tools, stamping tools, embossing tools, scraping tools, trimming tools, woodworking tools, drawing tools, press tools, stone moulds, sintered tools, machine knives, hammer cores, ring rollers, thread rolling dies, plastic moulds.

AISI / SAE D3 mod.– all at a glance!

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back to the previous page

next page

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.2080 mod. – AISI / SAE D3 mod. (~X210Cr12)

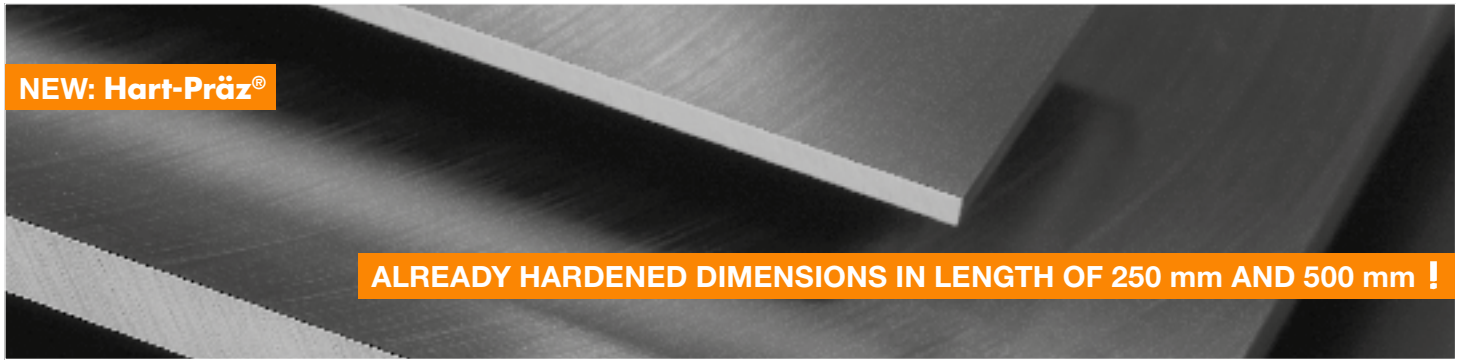
Hart-Präz® 250 [Hart]
Length: 250 mm

WIDTH	THICKNESS [mm]												
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2
250	Available dimensions [■]												
	■	■	■	■	■	■	■	■	■	■	■	■	■

Hart-Präz® 500 [Hart]
Length: 500 mm

WIDTH	THICKNESS [mm]												
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2
250	Available dimensions [■]												
	■	■	■	■	■	■	■	■	■	■	■	■	■

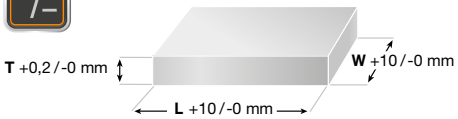
Hardened dimensions are delivered with approx. 59 HRC, at least 2x tempered.



Technical properties
Cold work steel with excellent wear resistance, due to its high chromium carbide content, and excellent cutting power (for laminations up to a thickness of 4 mm). Full hardenability, dimensional stability but medium toughness. The classic among the ledeburite 12% chromium steels.
Working hardness: 58-62 HRC.

Applications
Blanking tools, stamping tools, embossing tools, scraping tools, trimming tools, woodworking tools, drawing tools, press tools, stone moulds, sintered tools, machine knives, hammer cores, ring rollers, thread rolling dies, plastic moulds.

Tolerances



Standard values
Delivery condition: approx. 59 HRC
Chemical composition:

C	Si	Mn	P	S	Cr	W
1,9 - 2,2	0,1 - 0,6	0,2 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	≤ 0,8

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/D3mod

via smartphone/tablet:

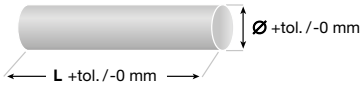
PREMIUM 1.2080 mod. – AISI / SAE D3 mod. (~X210Cr12)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
10,5	•	•
13,5	•	•
14,5	•	•
15,5	•	•
16,5	•	•
18,5	•	•
19,5	•	•
20,5	•	•
22,5	•	•
25,5	•	•
28,5	•	•
30,5	•	•
32,5	•	•
35,5	•	•
38,5	•	•
40,5	•	•
45,5	•	•
50,5	•	•
55,5	•	•
60,5	•	•
65,5		•
70,5		•
75,5		•
80,5		•
85,5		•
90,5		•
95,5		•
100,5		•

Larger diameters, up to 520,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	W
1,9 - 2,2	0,1 - 0,6	0,2 - 0,6	0 - 0,03	0 - 0,03	11,0 - 13,0	≤ 0,8

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/D3mod-7

Technical properties

Cold work steel with excellent wear resistance, due to its high chromium carbide content, and excellent cutting power (for laminations up to a thickness of 4 mm). Full hardenability, dimensional stability but medium toughness. The classic among the ledeburite 12% chromium steels.
Working hardness: 58-62 HRC.

Applications

Blanking tools, stamping tools, embossing tools, scraping tools, trimming tools, woodworking tools, drawing tools, press tools, stone moulds, sintered tools, machine knives, hammer cores, ring rollers, thread rolling dies, plastic moulds.

AISI / SAE D3 mod. – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/D3mod

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

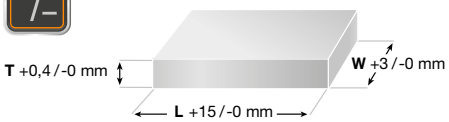
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.2067/1.3505 – AISI / SAE L3/L1 (102Cr6/100Cr6)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]																			
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3
	Available dimensions [■]																			
33	■	■	■	■	■	■	■	■	■	■	■	■								
43	■	■	■	■	■	■	■	■	■	■	■	■	■							
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■						
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■															
343	■	■	■	■	■															
353	■	■	■	■	■															
363	■	■	■	■	■															
383	■	■	■	■	■															
403	■	■	■	■	■															
423	■	■	■	■	■															
443	■	■	■	■	■															
453	■	■	■	■	■															
463	■	■	■	■	■															
483	■	■	■	■	■															
503	■	■	■	■	■															

Tolerances



Standard values (AISI / SAE L3)
Delivery condition: maximum 223 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,95 - 1,1	0,15 - 0,35	0,2 - 0,4	0 - 0,025	0 - 0,025	1,35 - 1,6	0 - 0,1	0 - 0,4

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us
T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/L3-5

Technical properties
An all-purpose medium alloyed cold work tool steel with high hardenability, but low depth of hardening, good wear resistance and toughness. This steel grade belongs to the group of AISI / SAE L1 (roller bearing and ball bearing steel). Working hardness: 60-64 HRC.

Applications
Drills, threading tools, centre lathes, milling cutters, reamers, small die plates, pressure rollers, cold rollings, measuring tools, cold pilger rollings, cold pilger jaws, gauges, mandrels, woodworking tools, cold extrusion tools, flanging rollers, shear knives, roller bearings, ball bearings (medium to large size).

AISI / SAE L3 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/L3

via smartphone / tablet:

PREMIUM 1.2067/1.3505 – AISI / SAE L3/L1 (102Cr6/100Cr6)

Precision round steel without machining allowance [PRS]
Specification: bright drawn/ground, ISO h9

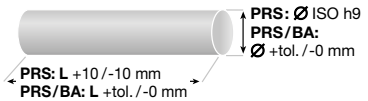
Ø [mm]	LENGTH [mm] 1.000 Available dimensions [•]
8,0	●
10,0	●
12,0	●
13,0	●
14,0	●
15,0	●
16,0	●
17,0	●
18,0	●
19,0	●
20,0	●
25,0	●
30,0	●
32,0	●
35,0	●
38,0	●
40,0	●
45,0	●
50,0	●
55,0	●
60,0	●

Precision round steel [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 1.000 Available dimensions [•]
65,0	●
70,0	●
75,0	●
80,0	●
85,0	●
90,0	●
95,0	●
100,0	●

Larger diameters, up to 242,0 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values (AISI / SAE L3)

Delivery condition: maximum 223 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,95 - 1,1	0,15 - 0,35	0,2 - 0,4	0 - 0,025	0 - 0,025	1,35 - 1,6	0 - 0,1	0 - 0,4

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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Direct access to our online shop

[PRS]
www.premium-steel.eu/L3-6
[PRS/BA]
www.premium-steel.eu/L3-7

Technical properties

An all-purpose medium alloyed cold work tool steel with high hardenability, but low depth of hardening, good wear resistance and toughness. This steel grade belongs to the group of AISI / SAE L1 (roller bearing and ball bearing steel). Working hardness: 60-64 HRC.

Applications

Drills, threading tools, centre lathes, milling cutters, reamers, small die plates, pressure rollers, cold rollings, measuring tools, cold pilger rollings, cold pilger jaws, gauges, mandrels, woodworking tools, cold extrusion tools, flanging rollers, shear knives, roller bearings, ball bearings (medium to large size).

AISI / SAE L3/L1 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.2067

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.1730 – AISI / SAE 1045 (C45U)

Precision flat steel without machining allowance [PFS]
Length: 500 mm

WIDTH	THICKNESS [mm]																				
	4,0	5,0	6,0	8,0	10,0	12,0	15,0	16,0	20,0	25,0	30,0	32,0	40,0	50,0	60,0	63,0	70,0	80,0	100,0	120,0	150,0
	Available dimensions [■]																				
10,0					■																
12,0						■															
15,0							■														
16,0								■													
20,0	■	■	■	■	■	■	■	■	■												
25,0	■	■	■	■	■	■	■	■	■	■											
30,0	■	■	■	■	■	■	■		■	■	■										
32,0	■	■	■	■	■	■		■	■	■		■									
40,0	■	■	■	■	■	■	■	■	■	■	■	■	■								
50,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■							
60,0	■	■	■	■	■	■	■		■	■	■		■	■	■						
63,0	■	■	■	■	■	■		■	■	■		■	■	■		■					
70,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
80,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
90,0	■	■	■	■	■	■	■		■	■	■		■	■	■		■	■			
100,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
120,0			■	■	■	■	■		■	■	■		■	■	■		■	■	■	■	
125,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
140,0			■	■	■	■	■		■	■	■	■	■	■	■		■	■	■		
150,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
160,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
175,0			■	■	■	■		■	■	■		■	■	■		■		■	■		
180,0			■	■	■	■	■		■	■	■	■	■	■	■		■	■	■	■	
200,0			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
250,0			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
300,0			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
315,0			■	■	■	■		■	■	■		■	■	■		■		■	■		
350,0			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
400,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
450,0									■	■	■	■	■	■	■	■	■	■	■		
500 *					■	■	■		■	■	■	■	■	■	■	■	■	■	■		

* Width and length sawn/raw with +tol./-0 mm

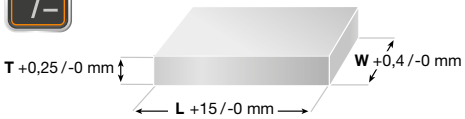
Technical properties

Unalloyed tool steel with excellent machining properties for unhardened parts e.g. fixture construction, due to its carbon proportion (0,45%) it can be hardened, but has a low depth of hardening. Shallow depth case-hardening steel with a hard surface and a tough core. Working hardness: approx. 190 HB (annealed) up to 54 HRC (surface hardness).

Applications

Mechanical engineering, construction materials, jigs, base plates, moulding frames, small dies, hand tools, simple knives, sledges, pliers, forks, hatchets, axes, shears, screwdrivers, chisels.

Tolerances



Standard values

Delivery condition: approx. 190 HB
Chemical composition:

C	Si	Mn	P	S
0,42 - 0,5	0,15 - 0,4	0,6 - 0,8	0 - 0,03	0 - 0,03

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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Direct access to our online shop

www.premium-steel.eu/1045-1

AISI / SAE 1045 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1045

via smartphone/tablet:

PREMIUM 1.1730 – AISI / SAE 1045 (C45U)

Precision flat steel without machining allowance [PFS]
Length: 1.000 mm

WIDTH	THICKNESS [mm]																				
	4,0	5,0	6,0	8,0	10,0	12,0	15,0	16,0	20,0	25,0	30,0	32,0	40,0	50,0	60,0	63,0	70,0	80,0	100,0	120,0	150,0
	Available dimensions [■]																				
10,0					■																
12,0						■															
15,0							■														
16,0								■													
20,0	■	■	■	■	■	■	■	■	■												
25,0	■	■	■	■	■	■	■	■	■	■											
30,0	■	■	■	■	■	■	■	■	■	■	■										
32,0	■	■	■	■	■	■	■	■	■	■		■									
40,0	■	■	■	■	■	■	■	■	■	■	■	■	■								
50,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■							
60,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■						
63,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■					
70,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
80,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
90,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
100,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
120,0			■	■	■	■	■		■	■	■		■	■	■		■	■	■	■	
125,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
140,0			■	■	■	■	■		■	■	■	■	■	■	■		■	■	■		
150,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
160,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
175,0			■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■		
180,0			■	■	■	■	■		■	■	■	■	■	■	■		■	■	■	■	
200,0			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
225,0			■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■		
250,0			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
300,0			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
315,0			■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■		
350,0			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
400,0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
450,0									■	■	■	■	■	■	■	■	■	■	■		
500 *					■	■	■		■	■	■	■	■	■	■	■	■	■	■		

* Width and length sawn/raw with +tol./-0 mm

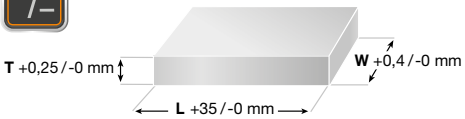
Technical properties

Unalloyed tool steel with excellent machining properties for unhardened parts e.g. fixture construction, due to its carbon proportion (0,45%) it can be hardened, but has a low depth of hardening. Shallow depth case-hardening steel with a hard surface and a tough core. Working hardness: approx. 190 HB (annealed) up to 54 HRC (surface hardness).

Applications

Mechanical engineering, construction materials, jigs, base plates, moulding frames, small dies, hand tools, simple knives, sledges, pliers, forks, hatchets, axes, shears, screwdrivers, chisels.

Tolerances



Standard values

Delivery condition: approx. 190 HB
Chemical composition:

C	Si	Mn	P	S
0,42 - 0,5	0,15 - 0,4	0,6 - 0,8	0 - 0,03	0 - 0,03

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/1045-2

AISI / SAE 1045 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1045

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

SHARPLY CALCULATED PRICES FOR PREMIUM-CUSTOMERS!

ABRAMS!® PREMIUM STEEL

back to the previous page
next page

PREMIUM 1.1730 – AISI / SAE 1045 (C45U)

Precision round steel without machining allowance [PRS]
Specification: bright drawn/ground, ISO h9

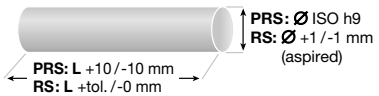
Ø [mm]	LENGTH [mm] 1.000
	Available dimensions [•]
6,0	•
8,0	•
10,0	•
12,0	•
14,0	•
15,0	•
16,0	•
18,0	•
20,0	•
22,0	•
24,0	•
25,0	•
26,0	•
28,0	•
30,0	•
35,0	•
40,0	•
45,0	•
50,0	•
55,0	•
60,0	•

Round steel [RS]
Specification: black

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
15	•	•
20	•	•
25	•	•
30	•	•
35	•	•
40	•	•
45	•	•
50	•	•
55	•	•
60	•	•
65		•
70		•
75		•
80		•
85		•
90		•
95		•
100		•

Larger diameters, up to 750,5 mm, and different lengths (partly peeled/rough-turned) on request!

Tolerances



Standard values

Delivery condition: approx. 190 HB
Chemical composition:

C	Si	Mn	P	S
0,42 - 0,5	0,15 - 0,4	0,6 - 0,8	0 - 0,03	0 - 0,03

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

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Direct access to our online shop

[PRS]
www.premium-steel.eu/1045-6
[RS]
www.premium-steel.eu/1045-8

Technical properties

Unalloyed tool steel with excellent machining properties for unhardened parts e.g. fixture construction, due to its carbon proportion (0,45%) it can be hardened, but has a low depth of hardening. Shallow depth case-hardening steel with a hard surface and a tough core. Working hardness: approx. 190 HB (annealed) up to 54 HRC (surface hardness).

Applications

Mechanical engineering, construction materials, jigs, base plates, moulding frames, small dies, hand tools, simple knives, sledges, pliers, forks, hatchets, axes, shears, screwdrivers, chisels.

AISI / SAE 1045 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1045

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM 1.0570 – AISI / SAE 1.0570 (St 52-3/~S355J2+N)

Precision flat steel with machining allowance [PFS/BA]
Length: 500 mm

	THICKNESS [mm]																		
	4,2	5,2	6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	63,3	70,3	80,3	100,3
WIDTH	**Available dimensions [■]**																		
10,3					■														
12,3						■													
15,3							■												
16,3								■											
20,3			■	■	■	■	■		■										
25,3	■	■	■	■	■	■	■	■	■	■									
30,3	■	■	■	■	■	■	■		■	■	■								
32,3	■	■	■	■	■	■		■	■	■		■							
40,3	■	■	■	■	■	■	■	■	■	■	■	■	■						
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
60,3	■	■	■	■	■	■	■		■	■	■		■	■	■				
63,3	■	■	■	■	■	■		■	■	■		■	■	■		■			
70,3	■	■	■	■	■	■	■		■	■	■		■	■	■		■		
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
120,3	■	■	■	■	■	■	■		■	■	■		■	■	■		■	■	■
125,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■
140,3	■	■	■	■	■	■	■		■	■	■		■	■	■		■	■	■
150,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
160,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
175,3			■	■	■	■		■	■	■		■	■	■		■		■	■
180,3			■	■	■	■	■		■	■	■		■	■	■		■	■	■
200,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
300,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
315,3			■	■	■	■		■	■	■		■	■	■		■		■	■
350,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
400,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
450,3									■	■		■	■	■		■		■	■
500 *					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

* Width and length sawn/raw with +tol./-0 mm

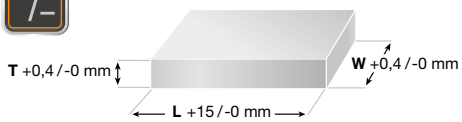
Technical properties

Unalloyed structural steel with good machinability and dimensional stability, high toughness and good weldability because of its low carbon content (C<= 0,22%).
This grade is only used for unhardened components.
Working hardness: approx. 180 HB (annealed).

Applications

Mechanical engineering, base plates, moulding frames, construction materials, steel frames, hand tools, knives, sledge hammers, spanners.

Tolerances



Standard values

Delivery condition: maximum 180 HB
Chemical composition:

C	Si	Mn	P	S
0 - 0,22	0 - 0,55	0 - 1,6	0 - 0,035	0 - 0,035

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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AISI / SAE 1.0570 – all at a glance!

Datasheets, online shop,
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via smartphone/tablet:

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PREMIUM 1.0570 – AISI / SAE 1.0570 (St 52-3/~S355J2+N)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]																		
	4,2	5,2	6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	63,3	70,3	80,3	100,3
	Available dimensions [■]																		
10,3					■														
12,3						■													
15,3							■												
16,3								■											
20,3			■	■	■	■	■		■										
25,3	■	■	■	■	■	■	■	■	■	■									
30,3	■	■	■	■	■	■	■		■	■	■								
32,3	■	■	■	■	■	■		■	■	■		■							
40,3	■	■	■	■	■	■	■	■	■	■	■	■	■						
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
60,3	■	■	■	■	■	■	■		■	■	■		■	■	■				
63,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
70,3	■	■	■	■	■	■	■		■	■	■		■	■	■		■		
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
120,3	■	■	■	■	■	■	■		■	■	■		■	■	■		■	■	■
125,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■
140,3	■	■	■	■	■	■	■		■	■	■	■	■	■	■		■	■	■
150,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
160,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
175,3			■	■	■	■		■	■	■		■	■	■		■		■	■
180,3			■	■	■	■	■		■	■	■		■	■	■		■	■	■
200,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
300,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
315,3			■	■	■	■		■	■	■	■	■	■	■		■		■	■
350,3			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
400,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
450,3									■	■		■	■	■		■		■	■
500 *				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

* Width and length sawn/raw with +tol./-0 mm

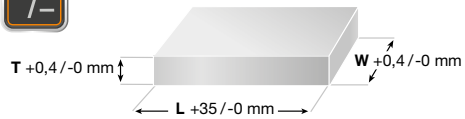
Technical properties

Unalloyed structural steel with good machinability and dimensional stability, high toughness and good weldability because of its low carbon content (C<= 0,22%).
This grade is only used for unhardened components.
Working hardness: approx. 180 HB (annealed).

Applications

Mechanical engineering, base plates, moulding frames, construction materials, steel frames, hand tools, knives, sledge hammers, spanners.

Tolerances



Standard values

Delivery condition: maximum 180 HB
Chemical composition:

C	Si	Mn	P	S
0 - 0,22	0 - 0,55	0 - 1,6	0 - 0,035	0 - 0,035

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.0570

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PIONEERING !

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PREMIUM 1.0570 – AISI / SAE 1.0570 (St 52-3/~S355J2+N)

Precision round steel without machining allowance [PRS]
Specification: bright drawn/ground, ISO h9

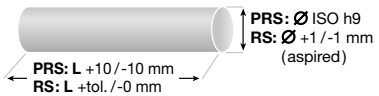
Ø [mm]	LENGTH [mm] 1.000
	Available dimensions [•]
6,0	•
8,0	•
10,0	•
12,0	•
14,0	•
15,0	•
16,0	•
18,0	•
20,0	•
22,0	•
24,0	•
25,0	•
26,0	•
28,0	•
30,0	•
35,0	•
40,0	•
45,0	•
50,0	•
55,0	•
60,0	•

Round steel [RS]
Specification: black

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20	•	•
25	•	•
30	•	•
35	•	•
40	•	•
45	•	•
50	•	•
55	•	•
60	•	•
65		•
70		•
75		•
80		•
85		•
90		•
95		•
100		•

Larger diameters, up to 750 mm and different lengths (partly peeled/rough-turned) on request!

Tolerances



Standard values

Delivery condition: maximum 180 HB
Chemical composition:

C	Si	Mn	P	S
0 - 0,22	0 - 0,55	0 - 1,6	0 - 0,035	0 - 0,035

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

[PRS]
www.premium-steel.eu/0570-6
[RS]
www.premium-steel.eu/0570-8

Technical properties

Unalloyed structural steel with good machinability and dimensional stability, high toughness and good weldability because of its low carbon content (C<= 0,22%).
This grade is only used for unhardened components.
Working hardness: approx. 180 HB (annealed).

Applications

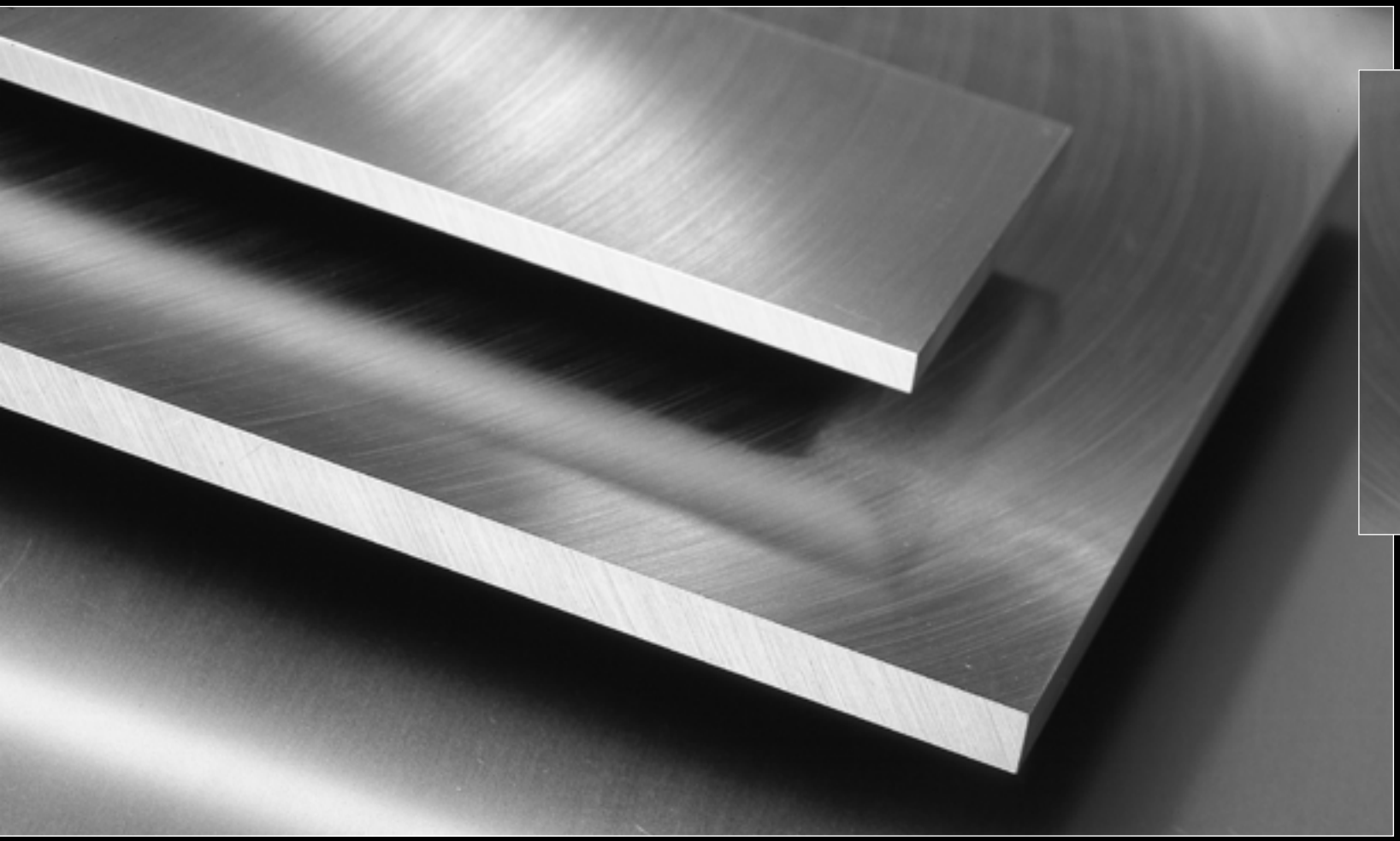
Mechanical engineering, base plates, moulding frames, construction materials, steel frames, hand tools, knives, sledge hammers, spanners.

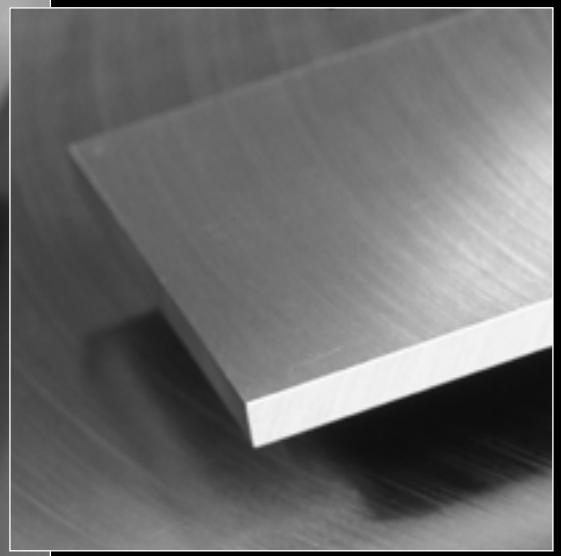
AISI / SAE 1.0570 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.0570

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44





PREMIUM Toolox 33 – AISI / SAE Toolox 33 (Toolox 33)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]											
	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3
	Available dimensions [■]											
33	■	■	■	■	■	■	■	■	■	■		
43	■	■	■	■	■	■	■	■	■	■	■	
53	■	■	■	■	■	■	■	■	■	■	■	■
63	■	■	■	■	■	■	■	■	■	■	■	■
73	■	■	■	■	■	■	■	■	■	■	■	■
83	■	■	■	■	■	■	■	■	■	■	■	■
93	■	■	■	■	■	■	■	■	■	■	■	■
103	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■	■	■
343	■	■	■	■	■	■	■	■	■	■	■	■
353	■	■	■	■	■	■	■	■	■	■	■	■
363	■	■	■	■	■	■	■	■	■	■	■	■
383	■	■	■	■	■	■	■	■	■	■	■	■
403	■	■	■	■	■	■	■	■	■	■	■	■
423	■	■	■	■	■	■	■	■	■	■	■	■
443	■	■	■	■	■	■	■	■	■	■	■	■
453	■	■	■	■	■	■	■	■	■	■	■	■
463	■	■	■	■	■	■	■	■	■	■	■	■
483	■	■	■	■	■	■	■	■	■	■	■	■
503	■	■	■	■	■	■	■	■	■	■	■	■

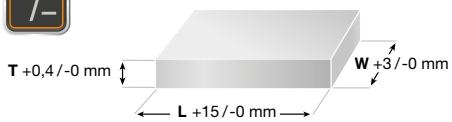
Technical properties

Quenched and tempered low alloy toolsteel with good machinability, high toughness and low residual stresses.
Can easily be polished, grained, eroded, etched, sliced, welded, nitrided, and coated with PVD (Physical Vapour Deposition).
Further heat treatment is not intended. Working hardness without nitriding: approx. 30-36 HRC (delivery condition).

Applications

Mechanical engineering, machine parts, guide rails, base plates, assembling parts, press brake tools, plate forming tools, wear parts, plastic moulds, moulding frames, forming tools, rubber moulds, die casting moulds.

Tolerances



Standard values

Delivery condition: maximum 330 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V
0,22 - 0,24	0,6 - 1,1	0,8 - 0,8	0 - 0,01	0 - 0,003	1,0 - 1,2	0,3 - 0,3	0 - 1,0	0,1 - 0,11

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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AISI / SAE Toolox 33 – all at a glance!

Datasheets, online shop,
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NAVIGATION/ STEEL GRADES

1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

NAVIGATION/ STEEL GRADES

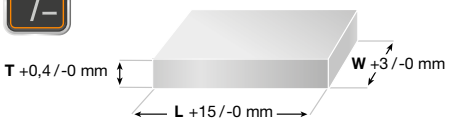
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3/L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

PREMIUM Toolox 44 – AISI / SAE Toolox 44 (Toolox 44)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]											
	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3
	Available dimensions [■]											
33	■	■	■	■	■	■	■	■	■	■		
43	■	■	■	■	■	■	■	■	■	■	■	
53	■	■	■	■	■	■	■	■	■	■	■	■
63	■	■	■	■	■	■	■	■	■	■	■	■
73	■	■	■	■	■	■	■	■	■	■	■	■
83	■	■	■	■	■	■	■	■	■	■	■	■
93	■	■	■	■	■	■	■	■	■	■	■	■
103	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■	■	■
343	■	■	■	■	■	■	■	■	■	■	■	■
353	■	■	■	■	■	■	■	■	■	■	■	■
363	■	■	■	■	■	■	■	■	■	■	■	■
383	■	■	■	■	■	■	■	■	■	■	■	■
403	■	■	■	■	■	■	■	■	■	■	■	■
423	■	■	■	■	■	■	■	■	■	■	■	■
443	■	■	■	■	■	■	■	■	■	■	■	■
453	■	■	■	■	■	■	■	■	■	■	■	■
463	■	■	■	■	■	■	■	■	■	■	■	■
483	■	■	■	■	■	■	■	■	■	■	■	■
503	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values
Delivery condition: maximum 418 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V
0,32 - 0,32	0,6 - 1,1	0,8 - 0,8	0 - 0,01	0 - 0,003	1,35 - 1,35	0,8 - 0,8	0 - 1,0	0,14 - 0,14

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Technical properties
Low-alloyed tool steel with high-impact toughness, quenched and tempered up to approx. 45 HRC. Machinable with suitable tools because of its low carbide content. Good dimensional and shape stability. Can easily be polished, grained, eroded, etched, sliced, welded, nitrided, and coated with PVD (Physical Vapour Deposition). Working hardness: approx. 45 HRC (delivery condition).

Applications
Mechanical engineering, machine parts, guide rails, base plates, assembling parts, press brake tools, plate forming tools, wear parts, plastic moulds, moulding frames, forming tools, rubber moulds, die casting moulds.

AISI / SAE Toolox 44 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/T44

via smartphone/tablet:

back to the previous page

next page

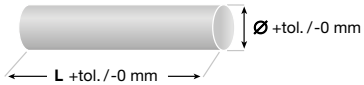
PREMIUM Toolox 44 – AISI / SAE Toolox 44 (Toolox 44)

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20,5	●	●
30,5	●	●
40,5	●	●
50,5	●	●
60,5	●	●
70,5		●
80,5		●
90,5		●
100,5		●

Larger diameters, up to 300,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 418 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V
0,32 - 0,32	0,6 - 1,1	0,8 - 0,8	0 - 0,01	0 - 0,003	1,35 - 1,35	0,8 - 0,8	0 - 1,0	0,14 - 0,14

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/T44-7

Technical properties

Low-alloyed tool steel with high-impact toughness, quenched and tempered up to approx. 45 HRC. Machinable with suitable tools because of its low carbide content. Good dimensional and shape stability. Can easily be polished, grained, eroded, etched, sliced, welded, nitrided, and coated with PVD (Physical Vapour Deposition). Working hardness: approx. 45 HRC (delivery condition).

Applications

Mechanical engineering, machine parts, guide rails, base plates, assembling parts, press brake tools, plate forming tools, wear parts, plastic moulds, moulding frames, forming tools, rubber moulds, die casting moulds.

AISI / SAE Toolox 44 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/T44

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.2343 H11
1.2343 ESU H11 ESR
1.2316 1.2316
1.2312 P20+S
1.2311 P20
1.2294 1.2294
1.2210 L2
1.2162 1.2162
1.2099 1.2099
1.2085 420FM
1.2083 420
1.2083 ESU 420 ESR
1.2080 mod. D3 mod.
1.2067 L3 / L1
1.1730 1045
1.0570 1.0570
Toolox 33 Toolox 33
Toolox 44 Toolox 44

SPECIFICATIONS !

Our delivery program contains 32.629 different specifications/standard dimensions.
Any dimension is available in different **heights**, **widths** and **lengths**. On request – according to your needs!

Precision flat steel without machining allowance [PFS] acc. to DIN 59350

For example: 100,0 x 20,0 x 1.000 mm

- **W** ground/milled, tol. +0,2/-0 mm
- **T** coplanar ground, tol. +0,05/-0 mm
- **L** milled/sawn, tol. +35/-0 mm
- **Exception: PREMIUM 1.1730 – AISI / SAE 1045: W** +0,4/-0 mm, **T** +0,25/-0 mm

Precision round steel without machining allowance [PRS]

- bright ground, tol.: ∅ ISO h8, **L** +10/-10 mm
- bright drawn/finely peeled/ground, tol.: ∅ ISO h9, **L** +10/-10 mm
- bright finely peeled, tol.: ∅ ISO h11, **L** +10/-10 mm

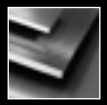
Precision flat steel with machining allowance [PRS/BA]

For example: 100,3 x 20,3 x 1.000 mm

- **W** ground/milled, tol. +0,4/-0 mm
- **T** coplanar ground/finely milled, tol. +0,4/-0 mm
- **L** milled/sawn, tol. +35/-0 mm

Precision round steel with machining allowance [PRS/BA]

- peeled/rough-turned, tol.: ∅ +tol./-0 mm, **L** +tol./-0 mm
- **Exception PREMIUM 1.3343 – AISI / SAE M2: L** 1.000 mm, tol. **L** +10/-10 mm
- **Particularity: PREMIUM 1.2826 – AISI / SAE 1.2826, PREMIUM 1.2360 – AISI / SAE ~Chipper, PREMIUM 1.2067 – AISI / SAE L3:** **Ø** are metric full values (for example 30,0 mm), therefore there is no basic machining allowance (for example 30,5 mm)



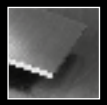
€co-Präz® [€co]

For example: 103 x 20,3 x 500 mm

- **W** sawn/black, tol. +3/-0 mm
- **T** finely milled, tol. +0,4/-0 mm
- **L** sawn/black, tol. +15/-0 mm

Round steel [RS]

- black, tol.: ∅ +1/-1 mm (aspired), **L** +tol./-0 mm



Hart-Präz® [Hart]

For exmaple: 250 x 10,2 x 500 mm

- **W** sawn/black, Tol. +10/-0 mm
- **T** coplanar ground, Tol. +0,2/-0 mm
- **L** sawn/black, Tol. +10/-0 mm

Planeness: +0,2/-0 mm of the entire surface (aspired)

Erosion block/EDM block – annealed or hardened [EB]

For example: 200,3 x 200,3 x 40,0 mm

- **Square dimension** milled/ground, tol. +2/-0 mm
- **T** finely milled/ground, tol. +0,25/-0 mm
- Grain structure is vertically directed in relation to base surface

STEEL CLASSIFICATIONS !

Steel grades are classified by their technical **properties** and/or by their **intended use**.

For example:
Cold work steel, hot work steel, plastic mould steel, high speed steel, corrosion resistant steel or case hardening steel.
Steel grades are often assigned to several classification groups.

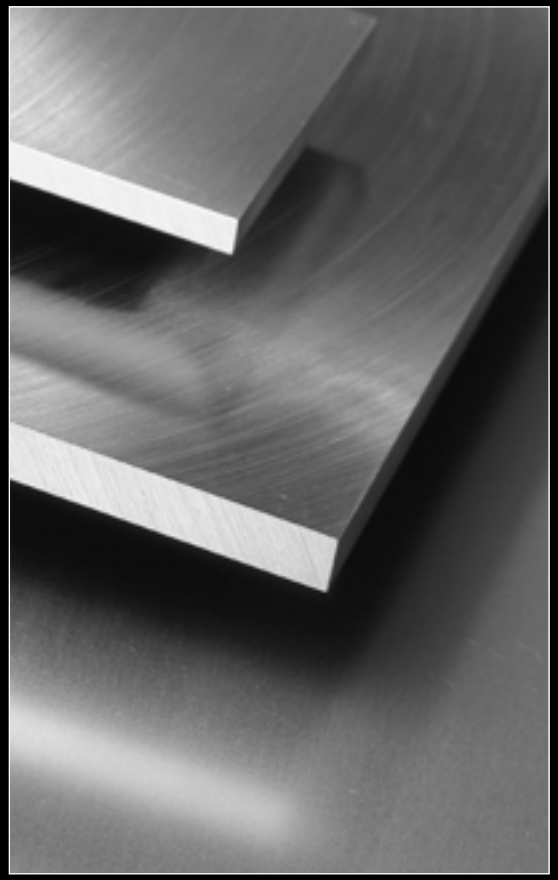
For more details on classification see www.steel-guide.eu/glossary

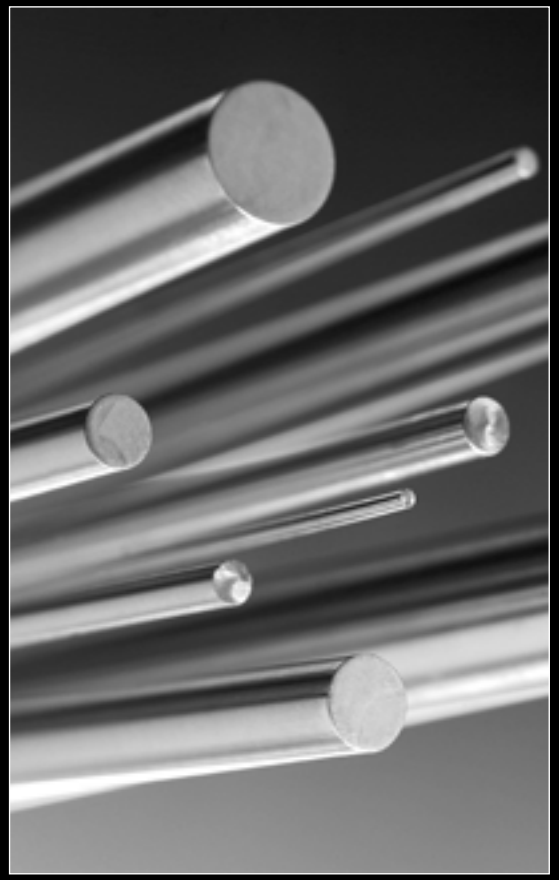
ABRAMS PREMIUM STEEL® – QUALITY THAT WILL IMPRESS YOU!

HIGH SPEED STEEL

STEEL GRADE

Description	PFS 500 mm	PFS 1.000 mm	PFS/BA 500 mm	PFS/BA 1.000 mm	PFS/BA 200, 300, 400, 600 mm	Eco-Prä® 300, 500, 1.000 mm	Hart-Prä® 250, 500 mm	Erosion block (annealed, hardened)	PRS ISO h8 / h9 / h11 1.000 mm	PRS/BA 500 mm	PRS/BA 1.000 mm	RS 500 mm	RS 1.000 mm	Delivery hardness (annealed/tempered) max. [HB]	Delivery hardness (hardened) approx. [HRC]	Approx. tensile strength [N/mm²] (deliv. cond.)	Max. working hardness [HRC]	Cold work steel	Hot work steel	Plastic mould steel	High speed steel	Corrosion resistant steel	Acid resistant steel	Heat-treatable steel	Case hardening steel	Nitriding steel	
PREMIUM HSS 1.3343 AISI / SAE M2	HS6-5-2C					✓			✓	✓	✓			270		920	65	✓	✓	✓	✓						**1.3343 M2**
PREMIUM HSS PM 30 AISI / SAE PM30	PMHS6-5-3-8					✓								300		995	66	✓	✓	✓	✓						**PM 30**
PREMIUM HSS PM 23 AISI / SAE M3	PMHS6-5-3					✓								270		920	65	✓	✓	✓	✓						**PM 23 M3**
PREMIUM HSS PM 4 AISI / SAE M4	PMHS6-5-4					✓								270		920	65	✓	✓	✓	✓						**PM 4 M4**





INNOVATIONS!

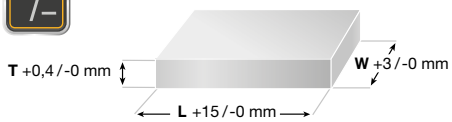
ABRAMS!®
PREMIUM STEEL

PREMIUM HSS 1.3343 – AISI / SAE M2 (HS6-5-2C)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]																
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	16,3	20,3	25,3	30,3	35,3	40,3	45,3	50,3
	Available dimensions [■]																
33	■	■	■	■	■	■	■	■	■	■	■	■	■				
43	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■									
343	■	■	■	■	■	■	■	■									
353	■	■	■	■	■	■	■	■									
363	■	■	■	■	■	■	■	■									
383	■	■	■	■	■	■	■	■									
403	■	■	■	■	■	■	■	■									
423	■	■	■	■	■	■	■	■									
443	■	■	■	■	■	■	■	■									
453	■	■	■	■	■	■	■	■									
463	■	■	■	■	■	■	■	■									
483	■	■	■	■	■	■	■	■									
503	■	■	■	■	■	■	■	■									

Tolerances



Standard values
Delivery condition: maximum 270 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V	W
0,86 - 0,94	0 - 0,45	0 - 0,4	0 - 0,03	0 - 0,03	3,8 - 4,5	4,7 - 5,2	1,7 - 2,1	5,9 - 6,7

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Direct access to our online shop
www.premium-steel.eu/M2-5

Technical properties
This high speed steel is the most frequently used among the high speed steels. Its composition allows it to be used for a wide range of applications. High impact toughness, good compression strength, excellent wear resistance. Working hardness: 62 - 65 HRC.

Applications
Machining tools, milling cutters, twist drills, screw taps, reamers, broaching tools, rotary knives, planer knives, gear shaper cutters, circular saw segments, metal saws, woodworking tools, screw dies, countersinks, chasers, cold extrusion punches, precision cutting tools, dies, punches, plastic moulds with high wear resistance.

AISI / SAE M2 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
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via smartphone / tablet:

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PREMIUM STEEL

PREMIUM HSS 1.3343 – AISI / SAE M2 (HS6-5-2C)

Precision round steel [PRS]
Specification: bright drawn/ground, ISO h9

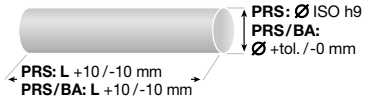
Ø [mm]	LENGTH [mm] 1.000
	Available dimensions [•]
1,2	•
1,7	•
2,2	•
2,7	•
3,2	•
3,7	•
4,2	•
4,7	•
5,2	•
5,7	•
6,2	•
6,7	•
7,2	•
7,7	•
8,2	•
8,7	•
9,2	•
9,7	•
10,2	•
10,7	•
11,2	•
11,7	•
12,2	•
12,7	•
13,2	•

Precision round steel with machining allowance [PRS/BA]
Specification: peeled /rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
14,2	•	•
14,7	•	•
15,2	•	•
15,7	•	•
16,2	•	•
16,7	•	•
17,2	•	•
17,7	•	•
18,2	•	•
18,7	•	•
19,2	•	•
19,7	•	•
20,2	•	•
22,2	•	•
24,2	•	•
25,2	•	•
26,2	•	•
28,2	•	•
30,2	•	•
35,2	•	•
40,2	•	•
45,2	•	•
50,2	•	•
60,5		•
70,5		•
80,5		•
90,5		•
100,5		•

Larger diameters, up to 300,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 270 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V	W
0,86 - 0,94	0 - 0,45	0 - 0,4	0 - 0,03	0 - 0,03	3,8 - 4,5	4,7 - 5,2	1,7 - 2,1	5,9 - 6,7

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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Direct access to our online shop
[PRS]
www.premium-steel.eu/M2-6
[PRS/BA]
www.premium-steel.eu/M2-7

Technical properties
This high speed steel is the most frequently used among the high speed steels. Its composition allows it to be used for a wide range of applications. High impact toughness, good compression strength, excellent wear resistance. Working hardness: 62 - 65 HRC.

Applications
Machining tools, milling cutters, twist drills, screw taps, reamers, broaching tools, rotary knives, planer knives, gear shaper cutters, circular saw segments, metal saws, woodworking tools, screw dies, countersinks, chasers, cold extrusion punches, precision cutting tools, dies, punches, plastic moulds with high wear resistance.

AISI / SAE M2 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
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via smartphone / tablet:

USE UP TO 40% LESS MATERIAL = LESS WASTE – THAT IS OUR €co-Präz®!

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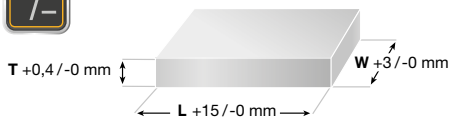
PREMIUM STEEL

PREMIUM HSS PM 30 – AISI / SAE PM30 (PMHS6-5-3-8)

€co-Präz® 300 [€co]
Length: 300 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values
Delivery condition: maximum 300 HB
Chemical composition:

C	Cr	Mo	V	W	Co
1,3 - 1,3	4,2 - 4,2	5,0 - 5,0	3,1 - 3,1	6,4 - 6,4	8,5 - 8,5

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us
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E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/PM30-5

Technical properties
Powder metallurgical manufactured high performance high-speed steel for cold work tools and cutting tools. It convinces with its high wear resistance, good toughness and best cutting edge retention. The addition of cobalt with approx. 8,5% has a positive effect on the high temperature strength or rather the red hardness, tempering resistance and modulus of elasticity.
Working hardness: 60-66 HRC.

Applications
Machining tools, milling cutters, thread cutting tools for materials that are difficult to machine, fine-blanking tools, drills, broaches, cold forming tools, blanking tools, deep drawing tools, die set.

AISI / SAE PM30 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/PM30

via smartphone / tablet:

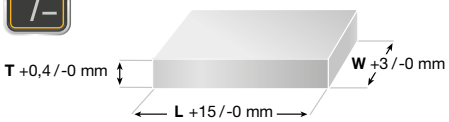
NAVIGATION/ STEEL GRADES
1.3343 M2
PM 30
PM 23 M3
PM 4 M4

PREMIUM HSS PM 23 – AISI / SAE M3 (PMHS6-5-3)

€co-Präz® 300 [€co]
Length: 300 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values
Delivery condition: maximum 270 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V	W
1,15 - 1,25	0 - 0,45	0 - 0,4	0 - 0,03	0 - 0,03	3,8 - 4,5	4,7 - 5,2	2,7 - 3,2	5,9 - 6,7

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us
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E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/M3-5

Technical properties
High speed steel based on powder metallurgy. Similar to AISI / SAE M2, due to a very clean and homogeneous microstructure with evenly spread carbides optimising wear resistance. Working hardness: 62 - 65 HRC.

Applications
Stamping tools, precision cutting tools, machining tools, broaching tools, rotary knives, woodworking tools, gear shaper cutters, circular saw segments, metal saws, screw dies, countersinks, chasers, cold extrusion punches, deep drawing dies, plastic moulds with high wear resistance.

AISI / SAE M3 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/M3

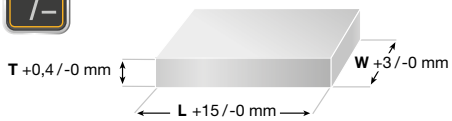
via smartphone / tablet:

PREMIUM HSS PM 4 – AISI / SAE M4 (PMHS6-5-4)

€co-Präz® 300 [€co]
Length: 300 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values
Delivery condition: maximum 270 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V	W
1,25 - 1,4	0 - 0,45	0 - 0,4	0 - 0,03	0 - 0,03	3,8 - 4,5	4,2 - 5,0	3,7 - 4,2	5,2 - 6,0

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us
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E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/M4-5

Technical properties
High speed steel based on powder metallurgy with better wear and pressure resistance than AISI / SAE M3 and AISI / SAE M2, due to a very clean and homogeneous microstructure with evenly spread carbides optimising wear resistance. Working hardness: 62-65 HRC.

Applications
Stamping tools, precision cutting tools, machining tools, broaching tools, rotary knives, woodworking tools, gear shaper cutters, circular saw segments, metal saws, screw dies, countersinks, chasers, cold extrusion punches, deep drawing dies, plastic moulds with high wear resistance.

AISI / SAE M4 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/M4

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.3343 M2
PM 30
PM 23 M3
PM 4 M4

SPECIFICATIONS !

Our delivery program contains 32.629 different specifications/standard dimensions.
Any dimension is available in different **heights**, **widths** and **lengths**. On request – according to your needs!

Precision flat steel without machining allowance [PFS] acc. to DIN 59350

For example: 100,0 x 20,0 x 1.000 mm

- **W** ground/milled, tol. +0,2/-0 mm
- **T** coplanar ground, tol. +0,05/-0 mm
- **L** milled/sawn, tol. +35/-0 mm
- **Exception: PREMIUM 1.1730 – AISI / SAE 1045: W** +0,4/-0 mm, **T** +0,25/-0 mm

Precision round steel without machining allowance [PRS]

- bright ground, tol.: ∅ ISO h8, **L** +10/-10 mm
- bright drawn/finely peeled/ground, tol.: ∅ ISO h9, **L** +10/-10 mm
- bright finely peeled, tol.: ∅ ISO h11, **L** +10/-10 mm

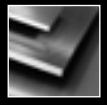
Precision flat steel with machining allowance [PRS/BA]

For example: 100,3 x 20,3 x 1.000 mm

- **W** ground/milled, tol. +0,4/-0 mm
- **T** coplanar ground/finely milled, tol. +0,4/-0 mm
- **L** milled/sawn, tol. +35/-0 mm

Precision round steel with machining allowance [PRS/BA]

- peeled/rough-turned, tol.: ∅ +tol./-0 mm, **L** +tol./-0 mm
- **Exception PREMIUM 1.3343 – AISI / SAE M2:** **L** 1.000 mm, tol. **L** +10/-10 mm
- **Particularity: PREMIUM 1.2826 – AISI / SAE 1.2826, PREMIUM 1.2360 – AISI / SAE ~Chipper, PREMIUM 1.2067 – AISI / SAE L3:** ∅ are metric full values (for example 30,0 mm), therefore there is no basic machining allowance (for example 30,5 mm)



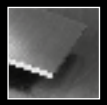
€co-Präz® [€co]

For example: 103 x 20,3 x 500 mm

- **W** sawn/black, tol. +3/-0 mm
- **T** finely milled, tol. +0,4/-0 mm
- **L** sawn/black, tol. +15/-0 mm

Round steel [RS]

- black, tol.: ∅ +1/-1 mm (aspired), **L** +tol./-0 mm



Hart-Präz® [Hart]

For exmaple: 250 x 10,2 x 500 mm

- **W** sawn/black, Tol. +10/-0 mm
- **T** coplanar ground, Tol. +0,2/-0 mm
- **L** sawn/black, Tol. +10/-0 mm

Planeness: +0,2/-0 mm of the entire surface (aspired)

Erosion block/EDM block – annealed or hardened [EB]

For example: 200,3 x 200,3 x 40,0 mm

- **Square dimension** milled/ground, tol. +2/-0 mm
- **T** finely milled/ground, tol. +0,25/-0 mm
- Grain structure is vertically directed in relation to base surface

STEEL CLASSIFICATIONS !

Steel grades are classified by their technical **properties** and/or by their **intended use**.

For example:
Cold work steel, hot work steel, plastic mould steel, high speed steel, corrosion resistant steel or case hardening steel.
Steel grades are often assigned to several classification groups.

For more details on classification see www.steel-guide.eu/glossary

ABRAMS PREMIUM STEEL® – QUALITY THAT WILL IMPRESS YOU!

STAINLESS STEEL, corrosion resistant acid resistant

STEEL GRADE	Description	PFS 500 mm	PFS 1.000 mm	PFS/BA 500 mm	PFS/BA 1.000 mm	PFS/BA 200, 300, 400, 600 mm	Eco-Prax® 300, 500, 1.000 mm	Hart-Prax® 250, 500 mm	Erosion block (annealed, hardened)	PRS ISO h8 / h9 / h11 1.000 mm	PRS/BA 500 mm	PRS/BA 1.000 mm	RS 500 mm	RS 1.000 mm	Delivery hardness (annealed/tempered) max. [HB]	Delivery hardness (hardened) approx. [HRC]	Approx. tensile strength [N/mm²] (deliv. cond.)	Max. working hardness [HRC]	Cold work steel	Hot work steel	Plastic mould steel	High speed steel	Corrosion resistant steel	Acid resistant steel	Heat-treatable steel	Case hardening steel	Nitriding steel	
PREMIUM 1.4841 AISI / SAE 314	X15CrNiSi25-21					✓								223		755	< 20				✓	✓					**1.4841 314**
PREMIUM 1.4571 AISI / SAE 316Ti	X6CrNiMoTi17-12-2					✓			✓					215		690	< 20				✓	✓					**1.4571 316Ti**
PREMIUM 1.4418 AISI / SAE S 165 M	X4CrNiMo16-5-1									✓	✓			323		1095	39	✓			✓	✓					**1.4418 S 165 M**
PREMIUM 1.4404/1.4401 AISI / SAE 316L/316	X2CrNiMo17-12-2 / X5CrNiMo17-12-2					✓			✓					215		690	< 20				✓	✓					**1.4404/1.4401 316L/316**
PREMIUM 1.4305 AISI / SAE 303	X8CrNiS18-9					✓			✓					250		800	20				✓	✓					**1.4305 303**
PREMIUM 1.4301 AISI / SAE 304	X5CrNi18-10					✓			✓					215		690	< 20				✓	✓					**1.4301 304**
PREMIUM 1.4125 AISI / SAE 440C	X105CrMo17					✓								285		965	60	✓			✓	✓					**1.4125 440C**
PREMIUM 1.4122 AISI / SAE 1.4122	X39CrMo17-1					✓			✓	✓	✓			325		1100	48			✓	✓	✓					**1.4122 1.4122**
PREMIUM 1.4112 AISI / SAE 440B	X90CrMoV18				✓	✓	✓		✓	✓	✓			265	53	925	58	✓		✓	✓	✓					**1.4112 440B**
PREMIUM 1.4104 AISI / SAE 430F	X14CrMoS17					✓			✓					270		860	26				✓	✓					**1.4104 430F**
PREMIUM 1.4057 AISI /SAE 431	X17CrNi16-2					✓			✓					331		1050	47	✓	✓		✓	✓					**1.4057 431**
PREMIUM 1.4034 AISI /SAE 1.4034	X46Cr13				✓	✓	✓		✓	✓	✓			241	50	815	55			✓	✓	✓					**1.4034 1.4034**
PREMIUM 1.4031 AISI / SAE 420	X39Cr13				✓	✓	✓		✓	✓	✓			241	50	815	55			✓	✓	✓					**1.4031 420**
PREMIUM 1.4021 AISI / SAE 420	X20Cr13					✓			✓					252		850	47		✓		✓	✓					**1.4021 420**
PREMIUM 1.4006 AISI / SAE 410	X12Cr13					✓								252		850	31		✓		✓	✓					**1.4006 410**

EXCELLENT CHEMICAL RESISTANCE EVEN AT HIGH TEMPERATURES OF UP TO 1100°C – ASIS/SAE 314!

ABRAMS!® PREMIUM STEEL

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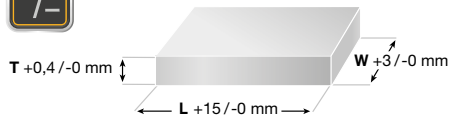
PREMIUM 1.4841 – AISI / SAE 314 (X15CrNiSi25-21)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 223 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni	N
0 - 0,2	1,5 - 2,5	0 - 2,0	0 - 0,045	0 - 0,015	24,0 - 26,0	19,0 - 22,0	0 - 0,11

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/314-5

Technical properties

Heat-resistant, austenitic chromium-nickel steel, that provides good resistance to oxidation at high temperatures. Good resistance properties as well as excellent chemical resistance at high temperatures up to 1100°C. Very good corrosion resistance. Working hardness: approx. 223 HB (delivery condition).

Applications

Apparatus engineering for high temperature application, automotive industry, chemical industry, oil industry, chains for the cement and concrete industry, mechanical engineering, furnace construction, annealing muffles, enamel grates, fire baskets, heat conductors.

AISI / SAE 314, all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/314

via smartphone / tablet:

NAVIGATION/ STEEL GRADES

1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

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NAVIGATION/ STEEL GRADES

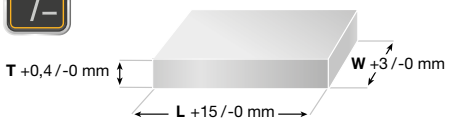
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

PREMIUM 1.4571 – AISI / SAE 316Ti (X6CrNiMoTi17-12-2)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values
Delivery condition: maximum 215 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	Ti
0 - 0,08	0 - 1,0	0 - 2,0	0 - 0,045	0 - 0,015	16,5 - 18,5	2,0 - 2,5	10,5 - 13,5	0 - 0,7

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us
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E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/316Ti-5

Technical properties
Stainless steel, austenitic chromium-nickel-molybdenum steel, stabilized with titanium. Resistant to seawater, diluted sulphuric and hydrochloric acids, and to intergranular corrosion following welding processes. Has excellent cold working properties, very good weldability and temperature resistance up to 600 degrees Celsius, non-magnetisable.
Working hardness: approx. 215 HB (delivery condition).

Applications
Chemical industry, textile industry, oil industry, building industry, food industry, soap industry, paper industry, photographic industry, paint industry, rubber industry, mechanical engineering, apparatus engineering, pump construction, compressor construction, pipeline construction, shipbuilding, medical technology, pharmaceutical industry, nuclear engineering.

AISI / SAE 316Ti – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/316Ti

via smartphone / tablet:

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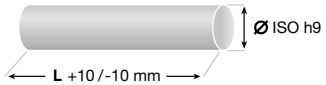
PREMIUM 1.4571 – AISI / SAE 316Ti (X6CrNiMoTi17-12-2)

Precision round steel without machining allowance [PRS]
Specification: bright drawn/ground, ISO h9

Ø [mm]	LENGTH [mm] 1.000
	Price per piece [in Euro]
5,0	●
6,0	●
8,0	●
10,0	●
12,0	●
15,0	●
16,0	●
20,0	●
25,0	●
28,0	●
30,0	●
35,0	●
40,0	●
45,0	●
50,0	●
55,0	●
60,0	●
70,0	●
80,0	●
90,0	●
100,0	●

Further diameters on request.

Tolerances



Standard values
Delivery condition: maximum 215 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	Ti
0 - 0,08	0 - 1,0	0 - 2,0	0 - 0,045	0 - 0,015	16,5 - 18,5	2,0 - 2,5	10,5 - 13,5	0 - 0,7

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/316Ti-6

Technical properties
Stainless steel, austenitic chromium-nickel-molybdenum steel, stabilized with titanium. Resistant to seawater, diluted sulphuric and hydrochloric acids, and to intergranular corrosion following welding processes. Has excellent cold working properties, very good weldability and temperature resistance up to 600 degrees Celsius, non-magnetisable.
Working hardness: approx. 215 HB (delivery condition).

Applications
Chemical industry, textile industry, oil industry, building industry, food industry, soap industry, paper industry, photographic industry, paint industry, rubber industry, mechanical engineering, apparatus engineering, pump construction, compressor construction, pipeline construction, shipbuilding, medical technology, pharmaceutical industry, nuclear engineering.

AISI / SAE 316Ti – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/316Ti

via smartphone / tablet:

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NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

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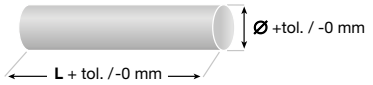
PREMIUM 1.4418 – AISI / SAE S 165 M (X4CrNiMo16-5-1)

Precision round steel [PRS]
Specification: bright drawn/ground

	LENGTH [mm]	
	500	1.000
Ø [mm]	Available dimensions [•]	
30,0	•	•
35,0	•	•
40,0	•	•
45,0	•	•
50,0	•	•
55,0	•	•
60,0	•	•
65,0		•
70,0		•
75,0		•
80,0		•
85,0		•
90,0		•
95,0		•
100,0		•

Larger diameters, up to 200 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 323 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	N
0 - 0,06	0 - 0,7	0 - 1,5	0 - 0,04	0 - 0,03	15,0 - 17,0	0,8 - 1,5	4,0 - 6,0	≥ 0,02

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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Direct access to our online shop
www.premium-steel.eu/S165M-7

Technical properties
Stainless, martensitic steel (tempered condition). Excellent combination of high strength, good toughness and a very good corrosion resistance in aggressive substances (acids).
The material is polishable, has good weldability and is suitable to use at temperatures from -30 °C up to 300 °C. Working hardness: approx. 34 HRC (delivery condition) up to 39 HRC.

Applications
Automotive industry, chemical industry, aviation and aerospace industry, mechanical engineering, plant engineering, ship building industry, shafts, axes, environmental engineering, centrifuge and pump components, energy technique, onshore and offshore.

AISI / SAE S165M – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/S165M

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

NAVIGATION/ STEEL GRADES

1.4841 314
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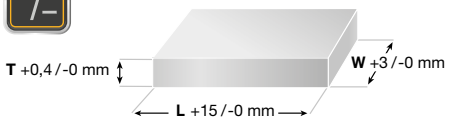
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

PREMIUM 1.4404/1.4401 – AISI / SAE 316L/316 (X2CrNiMo17-12-2/X5CrNiMo17-12-2)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values (AISI / SAE 316L)

Delivery condition: maximum 215 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	N
0 - 0,03	0 - 1,0	0 - 2,0	0 - 0,04	0,015 - 0,03	16,5 - 18,5	2,0 - 2,50	10,0 - 13,0	0 - 0,10

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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Direct access to our online shop

www.premium-steel.eu/316L-5

Technical properties

Stainless, austenitic chromium-nickel-molybdenum steel. polishable, suitable for low temperatures, high resistance with regards to non-oxidizing acids e.g. nitric acid, sulphuric acid and formic acid, easy to process and good weldability. Can also be used at high temperatures of up to 500°C, non-magnetisable. Working hardness: approx. 215 HB (delivery condition).

Applications

Chemical industry, pharmaceutical industry, food industry, valve and plant construction, building industry, automotive industry, aviation industry, mechanical engineering, offshore, petrochemical industry, electrical equipment, decorative uses and kitchen equipment.

AISI / SAE 316L/316 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/316L

via smartphone / tablet:

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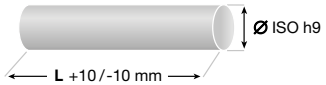
PREMIUM 1.4404/1.4401 – AISI / SAE 316L/316 (X2CrNiMo17-12-2/X5CrNiMo17-12-2)

Precision round steel without machining allowance [PRS]
Specification: bright drawn / ground, ISO h9

Ø [mm]	LENGTH [mm] 1.000		
	Available dimensions [•]		
5,0	•	»	
6,0	•	30,0	•
7,0	•	32,0	•
8,0	•	35,0	•
9,0	•	36,0	•
10,0	•	38,0	•
11,0	•	40,0	•
12,0	•	45,0	•
14,0	•	50,0	•
15,0	•	55,0	•
16,0	•	60,0	•
18,0	•	65,0	•
20,0	•	70,0	•
22,0	•	80,0	•
24,0	•	90,0	•
25,0	•	100,0	•
28,0	•		
»			

Further diameters on request.

Tolerances



Standard values (AISI / SAE 316L)
Delivery condition: maximum 215 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	N
0 - 0,03	0 - 1,0	0 - 2,0	0 - 0,04	0,015 - 0,03	16,5 - 18,5	2,0 - 2,50	10,0 - 13,0	0 - 0,10

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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Direct access to our online shop
www.premium-steel.eu/316L-6

Technical properties
Stainless, austenitic chromium-nickel-molybdenum steel. polishable, suitable for low temperatures, high resistance with regards to non-oxidizing acids e.g. nitric acid, sulphuric acid and formic acid, easy to process and good weldability. Can also be used at high temperatures of up to 500°C, non-magnetisable. Working hardness: approx. 215 HB (delivery condition).

Applications
Chemical industry, pharmaceutical industry, food industry, valve and plant construction, building industry, automotive industry, aviation industry, mechanical engineering, offshore, petrochemical industry, electrical equipment, decorative uses and kitchen equipment.

AISI / SAE 316L/316 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
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NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

NAVIGATION/ STEEL GRADES

1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
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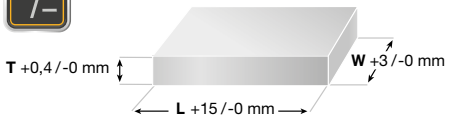
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

PREMIUM 1.4305 – AISI / SAE 303 (X8CrNiS18-9)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 250 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni	Cu	N
0 - 0,1	0 - 1,0	0 - 2,0	0 - 0,045	0,15 - 0,35	17,0 - 19,0	8,0 - 10,0	0 - 1,0	0 - 0,11

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/303-5

Technical properties

Corrosion resistant austenitic stainless chrome-nickel-steel with additional sulphur content that allows excellent milling, however, not forgeable, non-weldable (cracking), limited polishing properties. Average mechanical properties, non-magnetisable and conditionally acid resistant.
Working hardness: 215-250 HB (delivery condition).

Applications

Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, fittings construction, kitchen equipment, decoration.

AISI / SAE 303 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/303

via smartphone / tablet:

PREMIUM 1.4305 – AISI / SAE 303 (X8CrNiS18-9)

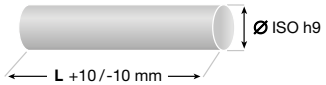
Precision round steel without machining allowance [PRS]
Specification: bright drawn / ground, ISO h9

	LENGTH [mm] 1.000		
Ø [mm]	Available dimensions [•]		
2,0	•	»	
3,0	•	25,0	•
4,0	•	26,0	•
5,0	•	28,0	•
6,0	•	30,0	•
7,0	•	32,0	•
8,0	•	34,0	•
9,0	•	35,0	•
10,0	•	36,0	•
11,0	•	38,0	•
12,0	•	40,0	•
13,0	•	45,0	•
14,0	•	50,0	•
15,0	•	55,0	•
16,0	•	60,0	•
17,0	•	65,0	•
18,0	•	70,0	•
19,0	•	80,0	•
20,0	•	90,0	•
22,0	•	100,0	•
24,0	•		
»			

Further diameters on request.

Technical properties
Corrosion resistant austenitic stainless chrome-nickel-steel with additional sulphur content that allows excellent milling, however, not forgeable, non-weldable (cracking), limited polishing properties. Average mechanical properties, non-magnetisable and conditionally acid resistant.
Working hardness: 215-250 HB (delivery condition).

Applications
Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, fittings construction, kitchen equipment, decoration.

Tolerances


Standard values
Delivery condition: maximum 250 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni	Cu	N
0 - 0,1	0 - 1,0	0 - 2,0	0 - 0,045	0,15 - 0,35	17,0 - 19,0	8,0 - 10,0	0 - 1,0	0 - 0,11

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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AISI / SAE 303 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
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via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
1.4418 S 165 M
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1.4031 420
1.4021 420
1.4006 410

NAVIGATION/ STEEL GRADES

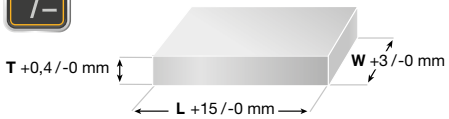
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

PREMIUM 1.4301 – AISI /SAE 304 (X5CrNi18-10)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 215 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni	N
0 - 0,07	0 - 1,0	0 - 2,0	0 - 0,045	0 - 0,015	17,5 - 19,5	8,0 - 10,5	0 - 0,11

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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Direct access to our online shop

www.premium-steel.eu/304-5

Technical properties

Corrosion resistant austenitic stainless chrome-nickel-steel with good processability and attractive appearance (ground-high-gloss polished). It has excellent deep drawing properties, is weldable and wear resistant but non-magnetisable and limited machining properties. Average mechanical properties, and conditionally acid resistant. Working hardness: 195-215 HB (delivery condition).

Applications

Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, fittings construction, kitchen equipment, decoration.

AISI / SAE 304 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/304

via smartphone / tablet:

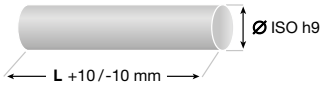
PREMIUM 1.4301 – AISI / SAE 304 (X5CrNi18-10)

Precision round steel without machining allowance [PRS]
Specification: bright drawn/ground, ISO h9

	LENGTH [mm] 1.000		
Ø [mm]	Available dimensions [•]		
2,0	•	»	
3,0	•	25,0	•
4,0	•	26,0	•
5,0	•	28,0	•
6,0	•	30,0	•
7,0	•	32,0	•
8,0	•	34,0	•
9,0	•	35,0	•
10,0	•	36,0	•
11,0	•	38,0	•
12,0	•	40,0	•
13,0	•	45,0	•
14,0	•	50,0	•
15,0	•	55,0	•
16,0	•	60,0	•
17,0	•	65,0	•
18,0	•	70,0	•
19,0	•	80,0	•
20,0	•	90,0	•
22,0	•	100,0	•
24,0	•		
»			

Further diameters on request.

Tolerances



Standard values

Delivery condition: maximum 215 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni	N
0 - 0,07	0 - 1,0	0 - 2,0	0 - 0,045	0 - 0,015	17,5 - 19,5	8,0 - 10,5	0 - 0,11

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/304-6

Technical properties

Corrosion resistant austenitic stainless chrome-nickel-steel with good processability and attractive appearance (ground-high-gloss polished). It has excellent deep drawing properties, is weldable and wear resistant but non-magnetisable and limited machining properties. Average mechanical properties, and conditionally acid resistant. Working hardness: 195-215 HB (delivery condition).

Applications

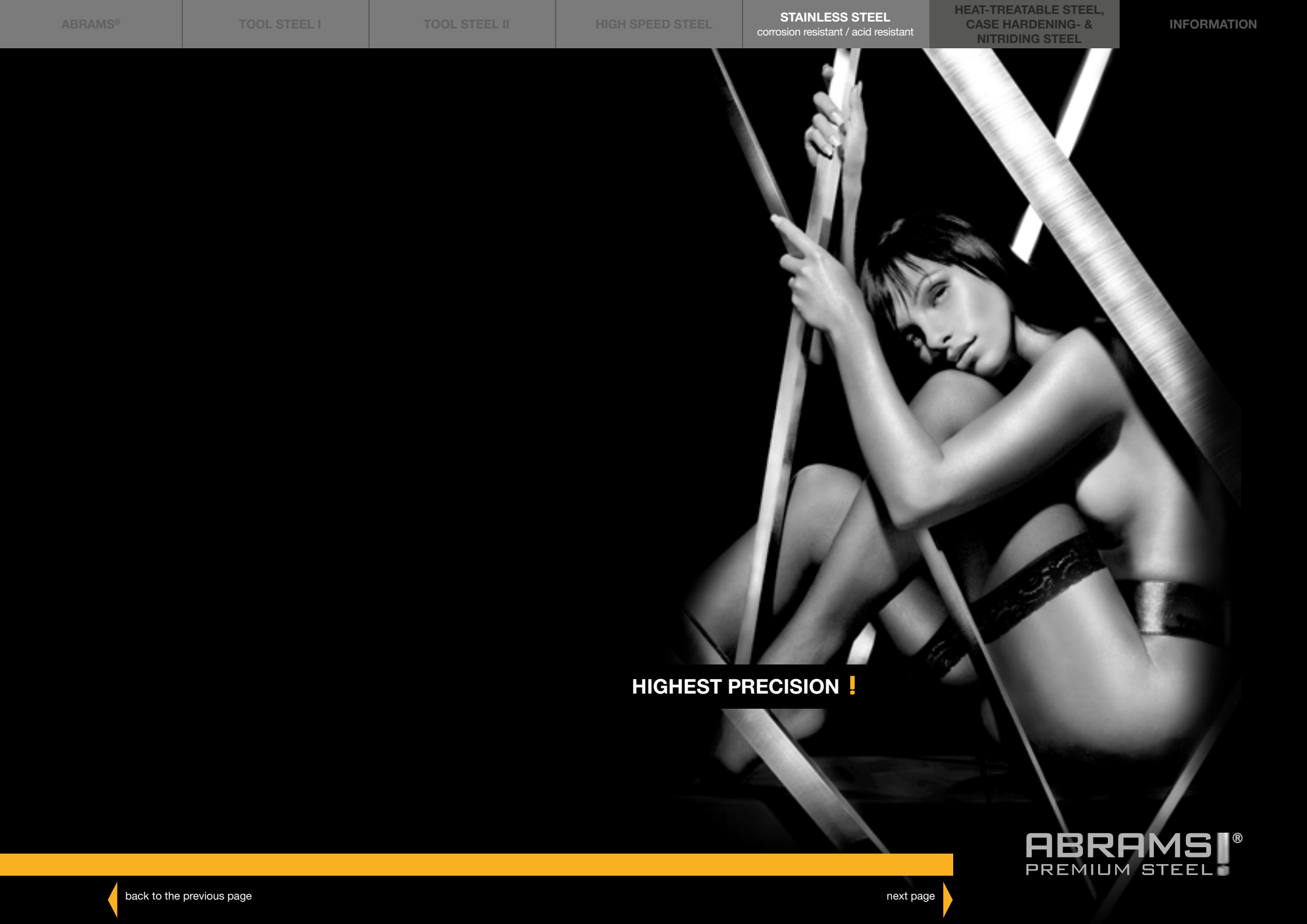
Food industry, photographic industry, paint industry, oil industry, soap industry, paper industry, textile industry, mechanical engineering, turned parts, fittings construction, kitchen equipment, decoration.

AISI / SAE 304 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/304

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410



HIGHEST PRECISION !

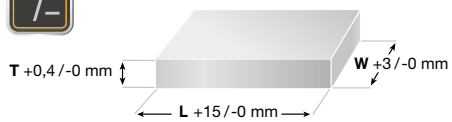
ABRAMS!®
PREMIUM STEEL

PREMIUM 1.4125 – AISI / SAE 440C (X105CrMo17)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values
Delivery condition: maximum 285 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0,95 - 1,20	0 - 1,0	0 - 1,0	0 - 0,04	0 - 0,015	16,0 - 18,0	0,4 - 0,8

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/440C-5

Technical properties
Stainless, martensitic steel with high hardness and high wear resistance and good cutting power due to the higher carbon content. Compared to the AISI / SAE 440B this steel has a slightly higher hardenability at the expense of the corrosion resistance.
The material is conditionally acid resistant.
Working hardness: 57-60 HRC

Applications
Knives for the food industry, for example frozen food cutters, pork and beef cleaving knives and fish industry knives as well as accessories for meat grinders.

AISI / SAE 440C – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/440C

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

NAVIGATION/ STEEL GRADES

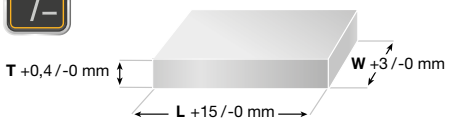
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

PREMIUM 1.4122 – AISI / SAE 1.4122 (X39CrMo17-1)

€co-Präz® 300 [€co]
Length: 300 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,33 - 0,45	0 - 1,0	0 - 1,5	0 - 0,045	0 - 0,03	15,5 - 17,5	0,8 - 1,3	0 - 1,0

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Direct access to our online shop

www.premium-steel.eu/4122-3-5

Technical properties

Pre-hardened corrosion resistant chrome-steel with good polishing properties, heat resistance and wear resistance. Often used for processing chemically aggressive plastic materials (e.g. PVC). The material is conditionally acid resistant. Working hardness: approx. 30 HRC (delivery condition) up to 48 HRC.

Applications

Mechanical engineering, marine engineering, apparatus engineering, plastic processing, plastic moulds, extrusion tools, press moulds, fitting tools, shafts, spindles, bolts, pistons, valves, steam valves, water valves, beater bars, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical Instruments.

AISI / SAE 1.4122 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.4122

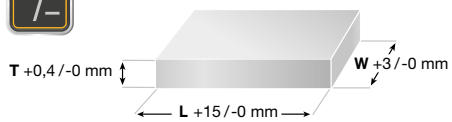
via smartphone / tablet:

PREMIUM 1.4122 – AISI / SAE 1.4122 (X39CrMo17-1)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values
Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,33 - 0,45	0 - 1,0	0 - 1,5	0 - 0,045	0 - 0,03	15,5 - 17,5	0,8 - 1,3	0 - 1,0

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/4122-5-5

Technical properties
Pre-hardened corrosion resistant chrome-steel with good polishing properties, heat resistance and wear resistance. Often used for processing chemically aggressive plastic materials (e.g. PVC). The material is conditionally acid resistant. Working hardness: approx. 30 HRC (delivery condition) up to 48 HRC.

Applications
Mechanical engineering, marine engineering, apparatus engineering, plastic processing, plastic moulds, extrusion tools, press moulds, fitting tools, shafts, spindles, bolts, pistons, valves, steam valves, water valves, beater bars, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical Instruments.

AISI / SAE 1.4122 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.4122

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

QUENCHED AND TEMPERED AND CORROSION RESISTANT …

ABRAMS! PREMIUM STEEL®

PREMIUM 1.4122 – AISI / SAE 1.4122 (X39CrMo17-1)

Precision round steel without machining allowance [PRS]
Specification: bright drawn/ground, ISO h9

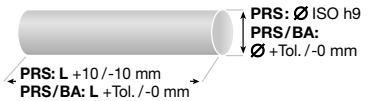
Ø [mm]	LENGTH [mm] 1.000
	Available dimensions [•]
16,0	•
18,0	•
20,0	•
22,0	•
25,0	•
28,0	•
30,0	•
35,0	•
40,0	•
45,0	•
50,0	•

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20,5	•	•
25,5	•	•
30,5	•	•
35,5	•	•
40,5	•	•
45,5	•	•
50,5	•	•
55,5	•	•
60,5	•	•
65,5		•
70,5		•
75,5		•
80,5		•
85,5		•
90,5		•
95,5		•
100,5		•

Larger diameters, up to 550,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,33 - 0,45	0 - 1,0	0 - 1,5	0 - 0,045	0 - 0,03	15,5 - 17,5	0,8 - 1,3	0 - 1,0

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

[PRS]
www.premium-steel.eu/4122-6
[PRS/BA]
www.premium-steel.eu/4122-7

Technical properties

Pre-hardened corrosion resistant chrome-steel with good polishing properties, heat resistance and wear resistance. Often used for processing chemically aggressive plastic materials (e.g. PVC). The material is conditionally acid resistant. Working hardness: approx. 30 HRC (delivery condition) up to 48 HRC.

Applications

Mechanical engineering, marine engineering, apparatus engineering, plastic processing, plastic moulds, extrusion tools, press moulds, fitting tools, shafts, spindles, bolts, pistons, valves, steam valves, water valves, beater bars, fittings parts, pump construction, pump rods, compressor construction, compressor parts, surgical Instruments.

AISI / SAE 1.4122 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.4122

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

CORROSION RESISTANT AND HARDENABLE UP TO 58 HRC ...

... AISI / SAE 440B !

ABRAMS® PREMIUM STEEL

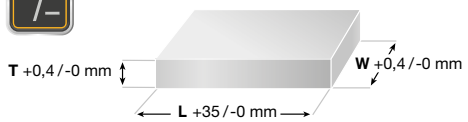
PREMIUM 1.4112 – AISI / SAE 440B (X90CrMoV18)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]																	
	3,2	4,2	5,2	6,2	8,2	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3
	Available dimensions [■]																	
10,3						■												
12,3							■											
15,3								■										
20,3	■	■	■	■	■	■	■	■	■									
25,3	■	■	■	■	■	■	■	■	■	■								
30,3	■	■	■	■	■	■	■	■	■	■	■							
40,3	■	■	■	■	■	■	■	■	■	■	■	■						
50,3	■	■	■	■	■	■	■	■	■	■	■	■	■					
60,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
70,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
90,3					■	■	■	■	■	■	■	■	■	■	■	■	■	
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
120,3						■	■	■	■	■	■	■	■	■	■	■		■
150,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■
250,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■		■
300,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■		■		■
500*					■	■	■	■	■	■	■	■	■	■	■	■		■

*Width and length sawn/black with +tol./-0 mm

Tolerances



Standard values
Delivery condition: maximum 265 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,85 - 0,95	0 - 1,0	0 - 1,0	0 - 0,04	0 - 0,015	17,0 - 19,0	0,9 - 1,3	0,07 - 0,12

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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T: +49 (0) 5 41/3 57 39-0
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Direct access to our online shop
www.premium-steel.eu/440B-4

Technical properties
Corrosion resistant martensitic chrome-steel (approx. 18% Cr) for cold work. Reaches an unusually high hardness and high wear resistance after heat treatment. High gloss polishable and conditionally acid resistant.
Working hardness: 53-58 HRC.

Applications
Cutting tools, knives, knife blades, cutlery, guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic moulds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.

AISI / SAE 440B – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/440B

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

NAVIGATION/ STEEL GRADES

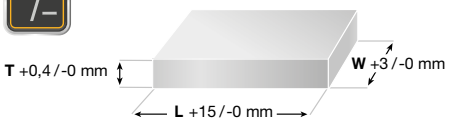
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

PREMIUM 1.4112 – AISI / SAE 440B (X90CrMoV18)

€co-Präz® 300 [€co]
Length: 300 mm

WIDTH	THICKNESS [mm]																		
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3
	Available dimensions [■]																		
33	■	■	■	■	■	■	■	■	■	■	■	■							
43	■	■	■	■	■	■	■	■	■	■	■	■	■						
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 265 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,85 - 0,95	0 - 1,0	0 - 1,0	0 - 0,04	0 - 0,015	17,0 - 19,0	0,9 - 1,3	0,07 - 0,12

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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www.premium-steel.eu/440B-3-5

Technical properties

Corrosion resistant martensitic chrome-steel (approx. 18% Cr) for cold work. Reaches an unusually high hardness and high wear resistance after heat treatment. High gloss polishable and conditionally acid resistant.
Working hardness: 53-58 HRC.

Applications

Cutting tools, knives, knife blades, cutlery, guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic moulds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.

AISI / SAE 440B – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/440B

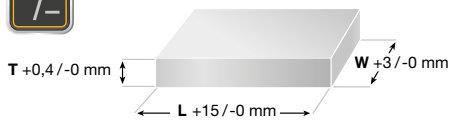
via smartphone / tablet:

PREMIUM 1.4112 – AISI / SAE 440B (X90CrMoV18)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]																		
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3
	Available dimensions [■]																		
33	■	■	■	■	■	■	■	■	■	■	■	■							
43	■	■	■	■	■	■	■	■	■	■	■	■	■						
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■									
343	■	■	■	■	■	■	■	■	■	■									
353	■	■	■	■	■	■	■	■	■	■									
363	■	■	■	■	■	■	■	■	■	■									
383	■	■	■	■	■	■	■	■	■	■									
403	■	■	■	■	■	■	■	■	■	■									
423	■	■	■	■	■	■	■	■	■	■									
443	■	■	■	■	■	■	■	■	■	■									
453	■	■	■	■	■	■	■	■	■	■									
463	■	■	■	■	■	■	■	■	■	■									
483	■	■	■	■	■	■	■	■	■	■									
503	■	■	■	■	■	■	■	■	■	■									

Tolerances



Standard values
Delivery condition: maximum 265 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,85 - 0,95	0 - 1,0	0 - 1,0	0 - 0,04	0 - 0,015	17,0 - 19,0	0,9 - 1,3	0,07 - 0,12

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Technical properties
Corrosion resistant martensitic chrome-steel (approx. 18% Cr) for cold work. Reaches an unusually high hardness and high wear resistance after heat treatment. High gloss polishable and conditionally acid resistant.
Working hardness: 53-58 HRC.

Applications
Cutting tools, knives, knife blades, cutlery, guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic moulds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.

AISI / SAE 440B – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
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via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

NAVIGATION/ STEEL GRADES

1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

PREMIUM 1.4112 – AISI / SAE 440B (X90CrMoV18)

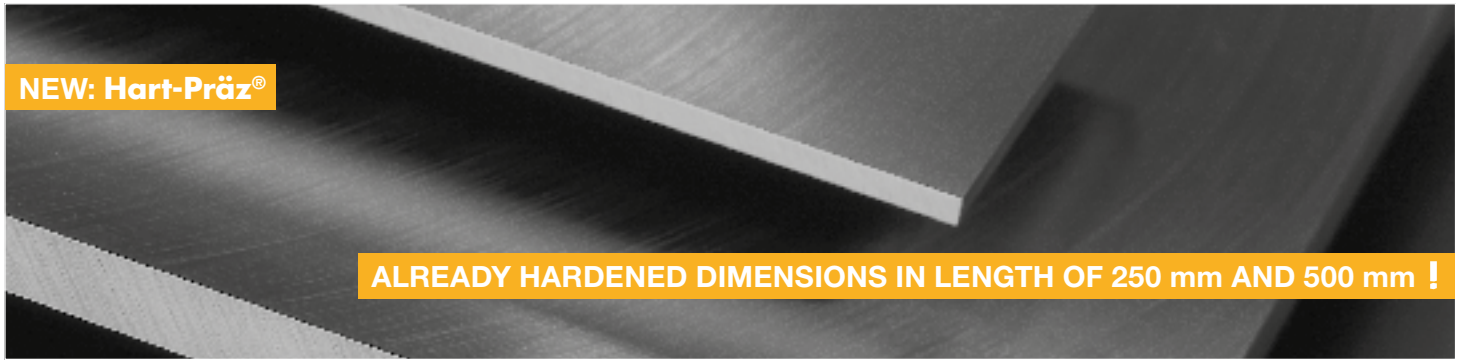
Hart-Präz® 250 [Hart]
Length: 250 mm

WIDTH	THICKNESS [mm]												
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2
250	Available dimensions [■]												
	■	■	■	■	■	■	■	■	■	■	■	■	■

Hart-Präz® 500 [Hart]
Length: 500 mm

WIDTH	THICKNESS [mm]												
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2
250	Available dimensions [■]												
	■	■	■	■	■	■	■	■	■	■	■	■	■

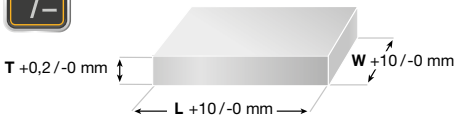
Hardened dimensions are delivered with approx. 53 HRC, at least 2x tempered.



Technical properties
Corrosion resistant martensitic chrome-steel (approx. 18% Cr) for cold work. Reaches an unusually high hardness and high wear resistance after heat treatment. High gloss polishable and conditionally acid resistant.
Working hardness: 53-58 HRC.

Applications
Cutting tools, knives, knife blades, cutlery, guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic moulds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.

Tolerances



Standard values
Delivery condition: approx. 53 HRC
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,85 - 0,95	0 - 1,0	0 - 1,0	0 - 0,04	0 - 0,015	17,0 - 19,0	0,9 - 1,3	0,07 - 0,12

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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via smartphone / tablet:

PREMIUM 1.4112 – AISI / SAE 440B (X90CrMoV18)

Precision round steel without machining allowance [PRS]
Specification: bright drawn/ground, ISO h9

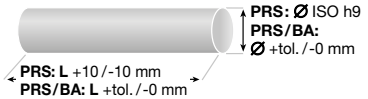
Ø [mm]	LENGTH [mm] 1.000
	Available dimensions [•]
10,0	•
12,0	•
14,0	•
15,0	•
16,0	•
18,0	•
20,0	•
25,0	•
30,0	•
35,0	•
40,0	•
45,0	•
50,0	•

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20,0	•	•
25,0	•	•
30,0	•	•
35,0	•	•
40,0	•	•
45,0	•	•
50,0	•	•
55,0	•	•
60,0	•	•
65,0		•
70,0		•
75,0		•
80,0		•
85,0		•
90,0		•
95,0		•
100,0		•

Larger diameters, up to 405,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 265 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,85 - 0,95	0 - 1,0	0 - 1,0	0 - 0,04	0 - 0,015	17,0 - 19,0	0,9 - 1,3	0,07 - 0,12

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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Direct access to our online shop
[PRS]
www.premium-steel.eu/440B-6
[PRS/BA]
www.premium-steel.eu/440B-7

Technical properties
Corrosion resistant martensitic chrome-steel (approx. 18% Cr) for cold work. Reaches an unusually high hardness and high wear resistance after heat treatment. High gloss polishable and conditionally acid resistant.
Working hardness: 53-58 HRC.

Applications
Cutting tools, knives, knife blades, cutlery, guide rails, wear parts, perforated discs, screw elements, pump shafts, scale pans, horizontal cutting, surgical instruments, plastic moulds, injection nozzles, roller bearings, ball bearings, mechanical engineering, food industry, building industry.

AISI / SAE 440B – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/440B

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

NAVIGATION/ STEEL GRADES

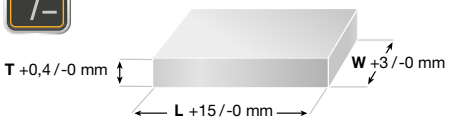
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

PREMIUM 1.4104 – AISI / SAE 430F (X14CrMoS17)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 270 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0,10 - 0,17	0 - 1,0	0 - 1,5	0 - 0,04	0,15 - 0,35	15,5 - 17,5	0,20 - 0,60

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Direct access to our online shop

www.premium-steel.eu/430F-5

Technical properties

Martensitic chromium steel with good mechanical properties (tempered condition). The addition of sulphur makes it ideal for machining. It can also be polished very well and is conditionally acid resistant but difficult to weld.
Working hardness: approx. 26 HRC (approx. on delivery).

Applications

Automotive industry, electronic equipment, power engineering, mechanical engineering, connecting elements, architecture and decoration, construction parts for automatic machining in water and steam such as screws, spindles, axes, bushes, etc.

AISI / SAE 430F – all at a glance!

Datasheets, online shop,
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via smartphone/tablet:

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next page

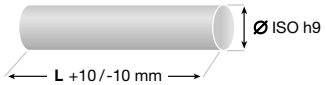
PREMIUM 1.4104 – AISI / SAE 430F (X14CrMoS17)

Precision round steel without machining allowance [PRS]
Specification: bright drawn / ground, ISO h9

	LENGTH [mm] 1.000		
Ø [mm]	Available dimensions [•]		
10,0	•	»	
12,0	•	32,0	•
13,0	•	34,0	•
14,0	•	35,0	•
15,0	•	36,0	•
16,0	•	38,0	•
17,0	•	40,0	•
18,0	•	45,0	•
20,0	•	50,0	•
22,0	•	55,0	•
24,0	•	60,0	•
25,0	•	65,0	•
26,0	•	70,0	•
28,0	•	80,0	•
30,0	•		
»			

Further diameters on request.

Tolerances



Standard values
Delivery condition: maximum 270 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0,10 - 0,17	0 - 1,0	0 - 1,5	0 - 0,04	0,15 - 0,35	15,5 - 17,5	0,20 - 0,60

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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www.premium-steel.eu/430F-6

Technical properties
Martensitic chromium steel with good mechanical properties (tempered condition). The addition of sulphur makes it ideal for machining. It can also be polished very well and is conditionally acid resistant but difficult to weld.
Working hardness: approx. 26 HRC (approx. on delivery).

Applications
Automotive industry, electronic equipment, power engineering, mechanical engineering, connecting elements, architecture and decoration, construction parts for automatic machining in water and steam such as screws, spindles, axes, bushes, etc.

AISI / SAE 430F – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/430F

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

NAVIGATION/ STEEL GRADES

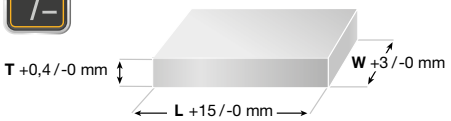
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

PREMIUM 1.4057 – AISI / SAE 431 (X17CrNi16-2)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 331 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni
0,12 - 0,22	0 - 1,0	0 - 1,5	0 - 0,04	0 - 0,03	15,0 - 17,0	1,5 - 2,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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Direct access to our online shop

www.premium-steel.eu/431-5

Technical properties

Martensitic chromium steel with high strength (tempered condition) and good corrosion resistance (added nickel). It is easy to weld and is conditionally acid resistant. The material has poor forgeability. Working hardness: approx. 32 HRC (approx. on delivery) to 47 HRC.

Applications

Mechanical engineering, automotive industry, oil and petrochemical industry, aviation, food industry, soap industry, acetic acid industry, shafts, pump parts, perforated plates, spindles, piston rods, valve cones, turbine blades.

AISI / SAE 431 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/431

via smartphone/tablet:

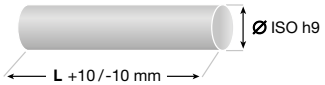
PREMIUM 1.4057 – AISI / SAE 431 (X17CrNi16-2)

Precision round steel without machining allowance [PRS]
Specification: bright drawn/ground, ISO h9

	LENGTH [mm] 1.000		
Ø [mm]	Available dimensions [•]		
8,0	•	»	
10,0	•	30,0	•
12,0	•	32,0	•
14,0	•	35,0	•
15,0	•	40,0	•
16,0	•	45,0	•
18,0	•	50,0	•
20,0	•	55,0	•
22,0	•	60,0	•
24,0	•	70,0	•
25,0	•	80,0	•
28,0	•		
»			

Further diameters on request.

Tolerances



Standard values
Delivery condition: maximum 331 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni
0,12 - 0,22	0 - 1,0	0 - 1,5	0 - 0,04	0 - 0,03	15,0 - 17,0	1,5 - 2,5

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us
T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/431-6

Technical properties
Martensitic chromium steel with high strength (tempered condition) and good corrosion resistance (added nickel). It is easy to weld and is conditionally acid resistant. The material has poor forgeability. Working hardness: approx. 32 HRC (approx. on delivery) to 47 HRC.

Applications
Mechanical engineering, automotive industry, oil and petrochemical industry, aviation, food industry, soap industry, acetic acid industry, shafts, pump parts, perforated plates, spindles, piston rods, valve cones, turbine blades.

AISI / SAE 431 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/431

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

NAVIGATION/ STEEL GRADES

1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

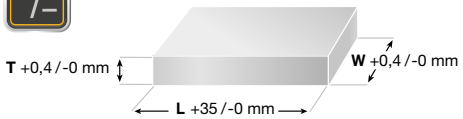
PREMIUM 1.4034 – AISI / SAE 1.4034 (X46Cr13)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]														
	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	70,3	80,3	100,3
	Available dimensions [■]														
15,3				■											
20,3	■	■	■	■	■	■									
25,3	■	■	■	■	■	■	■								
30,3	■	■	■	■	■	■	■	■							
32,3		■		■	■	■	■		■						
40,3	■	■	■	■	■	■	■	■	■	■					
50,3	■	■	■	■	■	■	■	■	■	■	■				
60,3	■	■	■	■	■	■	■	■	■	■	■	■			
70,3	■	■	■	■	■	■	■	■	■	■	■	■	■		
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
90,3	■	■	■	■		■	■	■	■	■	■	■	■	■	
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
120,3		■	■	■	■	■	■	■	■	■	■	■	■	■	■
130,3		■	■	■	■	■	■	■	■	■	■	■	■	■	■
140,3		■	■	■		■	■	■	■	■	■	■	■	■	■
150,3		■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3		■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3		■	■	■	■	■	■	■	■	■					
300,3		■	■	■	■	■	■	■	■						
500 *		■	■	■	■	■	■	■	■	■	■				

*Width and length sawn/black with +tol./-0 mm

Tolerances



Standard values

Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,43 - 0,5	0 - 1,0	0 - 1,0	0 - 0,04	0 - 0,015	12,5 - 14,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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Direct access to our online shop

www.premium-steel.eu/4034-4

Technical properties

Corrosion resistant cold work and plastic mould steel with good machining properties, hardenable and polishable. Low distortion through-hardening steel with full hardenability and high wear resistance, conditionally acid resistant.
Working hardness: 50 - 55 HRC.

Applications

Mechanical engineering, medical technology, plastic moulds, synthetic resin mould tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.

AISI / SAE 1.4034 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.4034

via smartphone / tablet:

PREMIUM 1.4034 – AISI / SAE 1.4034 (X46Cr13)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]													
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3
	Available dimensions [■]													
33	■	■	■	■	■	■	■	■	■	■	■	■		
43	■	■	■	■	■	■	■	■	■	■	■	■	■	
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■	■	■	■	■
343	■	■	■	■	■	■	■	■	■	■	■	■	■	■
353	■	■	■	■	■	■	■	■	■	■	■	■	■	■
363	■	■	■	■	■	■	■	■	■	■	■	■	■	■
383	■	■	■	■	■	■	■	■	■	■	■	■	■	■
403	■	■	■	■	■	■	■	■	■	■	■	■	■	■
423	■	■	■	■	■	■	■	■	■	■	■	■	■	■
443	■	■	■	■	■	■	■	■	■	■	■	■	■	■
453	■	■	■	■	■	■	■	■	■	■	■	■	■	■
463	■	■	■	■	■	■	■	■	■	■	■	■	■	■
483	■	■	■	■	■	■	■	■	■	■	■	■	■	■
503	■	■	■	■	■	■	■	■	■	■	■	■	■	■

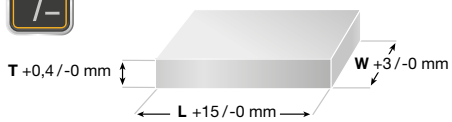
Technical properties

Corrosion resistant cold work and plastic mould steel with good machining properties, hardenable and polishable. Low distortion through-hardening steel with full hardenability and high wear resistance, conditionally acid resistant.
Working hardness: 50-55 HRC.

Applications

Mechanical engineering, medical technology, plastic moulds, synthetic resin mould tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.

Tolerances



Standard values

Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,43 - 0,5	0 - 1,0	0 - 1,0	0 - 0,04	0 - 0,015	12,5 - 14,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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www.premium-steel.eu/4034-5

AISI / SAE 1.4034 – all at a glance!

Datasheets, online shop,
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www.premium-steel.eu/1.4034

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

NAVIGATION/ STEEL GRADES

1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

PREMIUM 1.4034 – AISI / SAE 1.4034 (X46Cr13)

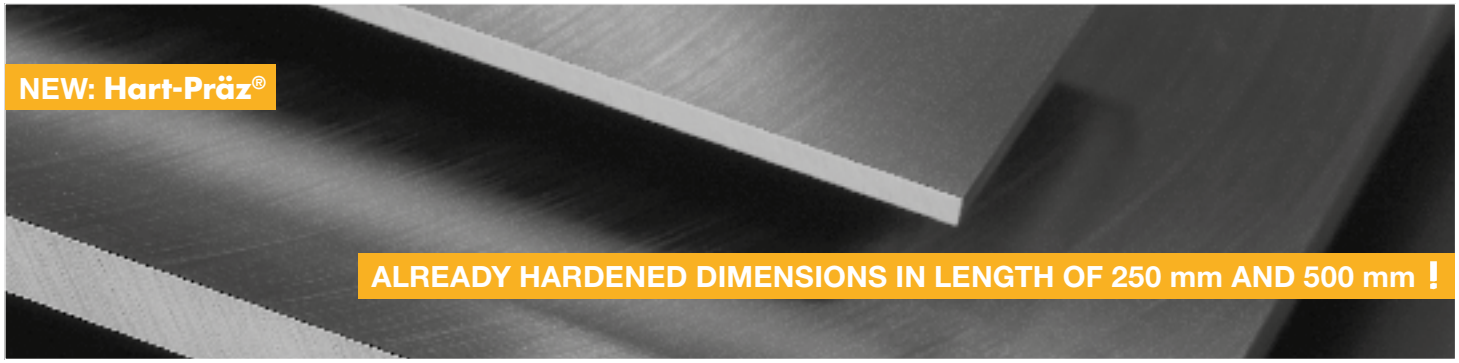
Hart-Präz® 250 [Hart]
Length: 250 mm

	THICKNESS [mm]												
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2
WIDTH	Available dimensions [■]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

Hart-Präz® 500 [Hart]
Length: 500 mm

	THICKNESS [mm]												
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2
WIDTH	Available dimensions [■]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

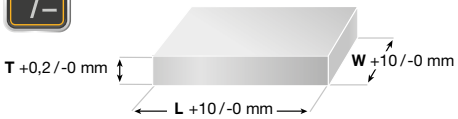
Hardened dimensions are delivered with approx. 50 HRC, at least 2x tempered.



Technical properties
Corrosion resistant cold work and plastic mould steel with good machining properties, hardenable and polishable. Low distortion through-hardening steel with full hardenability and high wear resistance, conditionally acid resistant.
Working hardness: 50 - 55 HRC.

Applications
Mechanical engineering, medical technology, plastic moulds, synthetic resin mould tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.

Tolerances



Standard values
Delivery condition: approx. 50 HRC
Chemical composition:

C	Si	Mn	P	S	Cr
0,43 - 0,5	0 - 1,0	0 - 1,0	0 - 0,04	0 - 0,015	12,5 - 14,5

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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AISI / SAE 1.4034 – all at a glance!
Datasheets, online shop,
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via smartphone / tablet:

PREMIUM 1.4034 – AISI / SAE 1.4034 (X46Cr13)

Precision round steel without machining allowance [PRS]
Specification: bright drawn/ground, ISO h9

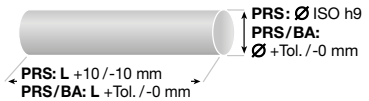
Ø [mm]	LENGTH [mm] 1.000
	Available dimensions [•]
15,0	•
16,0	•
18,0	•
20,0	•
25,0	•
30,0	•
35,0	•
40,0	•
45,0	•
50,0	•

Precision round steel with machining allowance [PRS/BA]
Specification: peeled / rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20,5	•	•
25,5	•	•
30,5	•	•
35,5	•	•
40,5	•	•
45,5	•	•
50,5	•	•
55,5	•	•
60,5	•	•
65,5		•
70,5		•
80,5		•
85,5		•
90,5		•
100,5		•

Larger diameters, up to 400,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,43 - 0,5	0 - 1,0	0 - 1,0	0 - 0,04	0 - 0,015	12,5 - 14,5

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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E: sales@abrams-industries.eu

Direct access to our online shop
[PRS]
www.premium-steel.eu/4034-6
[PRS/BA]
www.premium-steel.eu/4034-7

Technical properties
Corrosion resistant cold work and plastic mould steel with good machining properties, hardenable and polishable. Low distortion through-hardening steel with full hardenability and high wear resistance, conditionally acid resistant.
Working hardness: 50 - 55 HRC.

Applications
Mechanical engineering, medical technology, plastic moulds, synthetic resin mould tools, die casting tools, light metal die casting, cutting tools, machine knives, kitchen knives, razors, shears, scraper blades, surgical instruments, measuring tools, roller bearings, ball bearings, ice-skates, pump parts, valves.

AISI / SAE 1.4034 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.4034

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

NAVIGATION/ STEEL GRADES

1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

PREMIUM 1.4031 – AISI / SAE ~420 (X39Cr13)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

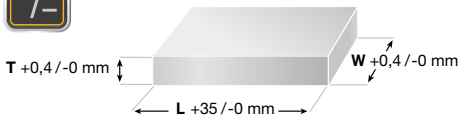
	THICKNESS [mm]														
	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3	60,3	70,3	80,3	100,3
WIDTH	Available dimensions [■]														
15,3				■											
20,3	■	■	■	■	■	■									
25,3	■	■	■	■	■	■	■								
30,3	■	■	■	■	■	■	■	■							
32,3		■		■	■	■	■		■						
40,3	■	■	■	■	■	■	■	■	■	■					
50,3	■	■	■	■	■	■	■	■	■	■	■				
60,3	■	■	■	■	■	■	■	■	■	■	■	■			
70,3	■	■	■	■	■	■	■	■	■	■	■	■	■		
80,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
90,3	■	■	■	■		■	■	■	■	■	■	■	■	■	
100,3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
120,3		■	■	■	■	■	■	■	■	■	■	■	■	■	■
130,3		■	■	■	■	■	■	■	■	■	■	■	■	■	■
140,3		■	■	■		■	■	■	■	■	■	■	■	■	■
150,3		■	■	■	■	■	■	■	■	■	■	■	■	■	■
200,3		■	■	■	■	■	■	■	■	■	■	■	■	■	■
250,3		■	■	■	■	■	■	■	■	■					
300,3		■	■	■	■	■	■	■	■						
500 *		■	■	■	■	■	■	■	■	■	■				

*Width and length sawn/black with +tol./-0 mm

Technical properties
Martensitic chromium steel with good mechanical properties. Excellent polishing properties, good corrosion resistance, good chemical resistance and difficult to weld. Due to it's high contents of carbon excellent to use for cutting tools. The material is conditionally acid resistant.
Working hardness: approx. 50-55 HRC.

Applications
Mechanical engineering, medical technology, machine knives, shears, cutting tools, razors, automotive industry, food technology, fasteners, decoration purposes, kitchen equipment, power engineering, springs, piston rods, screws.

Tolerances



Standard values
Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,36 - 0,42	0 - 1,0	0 - 1,0	0 - 0,04	0 - 0,015	12,5 - 14,5

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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AISI / SAE 1.4031 – all at a glance!
Datasheets, online shop,
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via smartphone/tablet:

PREMIUM 1.4031 – AISI / SAE ~420 (X39Cr13)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]													
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3
	Available dimensions [■]													
33	■	■	■	■	■	■	■	■	■	■	■	■		
43	■	■	■	■	■	■	■	■	■	■	■	■	■	
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■	■	■	■	■
343	■	■	■	■	■	■	■	■	■	■	■	■	■	■
353	■	■	■	■	■	■	■	■	■	■	■	■	■	■
363	■	■	■	■	■	■	■	■	■	■	■	■	■	■
383	■	■	■	■	■	■	■	■	■	■	■	■	■	■
403	■	■	■	■	■	■	■	■	■	■	■	■	■	■
423	■	■	■	■	■	■	■	■	■	■	■	■	■	■
443	■	■	■	■	■	■	■	■	■	■	■	■	■	■
453	■	■	■	■	■	■	■	■	■	■	■	■	■	■
463	■	■	■	■	■	■	■	■	■	■	■	■	■	■
483	■	■	■	■	■	■	■	■	■	■	■	■	■	■
503	■	■	■	■	■	■	■	■	■	■	■	■	■	■

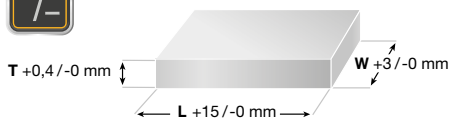
Technical properties

Martensitic chromium steel with good mechanical properties. Excellent polishing properties, good corrosion resistance, good chemical resistance and difficult to weld. Due to it's high contents of carbon excellent to use for cutting tools. The material is conditionally acid resistant.
Working hardness: approx. 50-55 HRC.

Applications

Mechanical engineering, medical technology, machine knives, shears, cutting tools, razors, automotive industry, food technology, fasteners, decoration purposes, kitchen equipment, power engineering, springs, piston rods, screws.

Tolerances



Standard values

Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,36 - 0,42	0 - 1,0	0 - 1,0	0 - 0,04	0 - 0,015	12,5 - 14,5

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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www.premium-steel.eu/4031-5

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Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
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NAVIGATION/ STEEL GRADES

1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

NAVIGATION/ STEEL GRADES

1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

PREMIUM 1.4031 – AISI / SAE ~420 (X39Cr13)

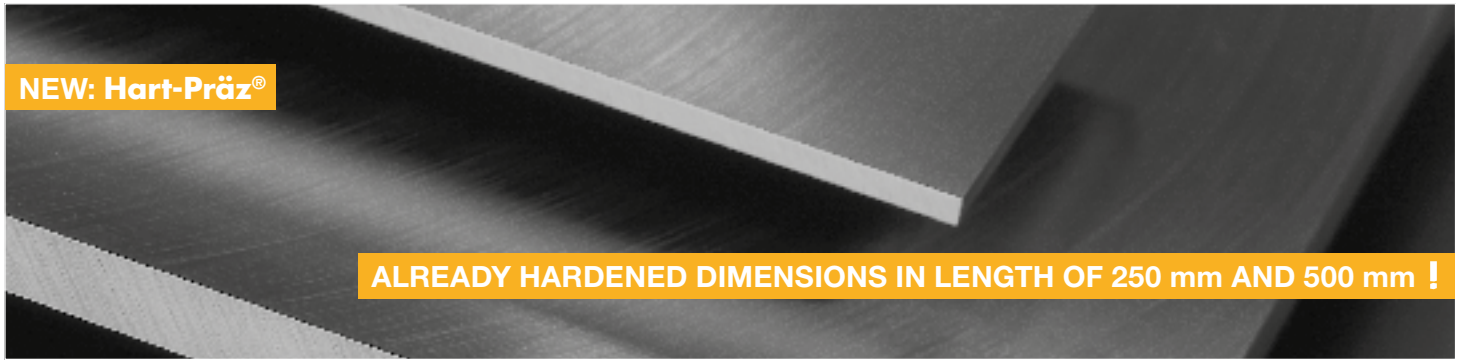
Hart-Präz® 250 [Hart]
Length: 250 mm

WIDTH	THICKNESS [mm]												
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2
250	Available dimensions [■]												
	■	■	■	■	■	■	■	■	■	■	■	■	■

Hart-Präz® 500 [Hart]
Length: 500 mm

WIDTH	THICKNESS [mm]												
	2,2	2,7	3,2	3,7	4,2	4,7	5,2	6,2	7,2	8,2	9,2	10,2	12,2
250	Available dimensions [■]												
	■	■	■	■	■	■	■	■	■	■	■	■	■

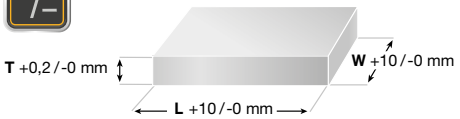
Hardened dimensions are delivered with approx. 50 HRC, at least 2x tempered.



Technical properties
Martensitic chromium steel with good mechanical properties. Excellent polishing properties, good corrosion resistance, good chemical resistance and difficult to weld. Due to it's high contents of carbon excellent to use for cutting tools. The material is conditionally acid resistant.
Working hardness: approx. 50-55 HRC.

Applications
Mechanical engineering, medical technology, machine knives, shears, cutting tools, razors, automotive industry, food technology, fasteners, decoration purposes, kitchen equipment, power engineering, springs, piston rods, screws.

Tolerances



Standard values
Delivery condition: approx. 50 HRC
Chemical composition:

C	Si	Mn	P	S	Cr
0,36 - 0,42	0 - 1,0	0 - 1,0	0 - 0,04	0 - 0,015	12,5 - 14,5

If you need customised dimensions -
Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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via smartphone / tablet:

PREMIUM 1.4031 – AISI / SAE ~420 (X39Cr13)

Precision round steel without machining allowance [PRS]
Specification: bright drawn/ground, ISO h9

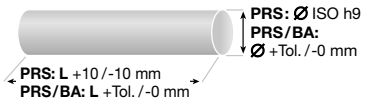
Ø [mm]	LENGTH [mm] 1.000
	Available dimensions [•]
15,0	•
16,0	•
18,0	•
20,0	•
25,0	•
30,0	•
35,0	•
40,0	•
45,0	•
50,0	•

Precision round steel with machining allowance [PRS/BA]
Specification: peeled /rough-turned

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20,5	•	•
25,5	•	•
30,5	•	•
35,5	•	•
40,5	•	•
45,5	•	•
50,5	•	•
55,5	•	•
60,5	•	•
65,5		•
70,5		•
80,5		•
85,5		•
90,5		•
100,5		•

Larger diameters, up to 400,5 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,36 - 0,42	0 - 1,0	0 - 1,0	0 - 0,04	0 - 0,015	12,5 - 14,5

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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[PRS]
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[PRS/BA]
www.premium-steel.eu/4031-7

Technical properties
Martensitic chromium steel with good mechanical properties. Excellent polishing properties, good corrosion resistance, good chemical resistance and difficult to weld. Due to it's high contents of carbon excellent to use for cutting tools. The material is conditionally acid resistant.
Working hardness: approx. 50-55 HRC.

Applications
Mechanical engineering, medical technology, machine knives, shears, cutting tools, razors, automotive industry, food technology, fasteners, decoration purposes, kitchen equipment, power engineering, springs, piston rods, screws.

AISI / SAE 1.4031 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.4031

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
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1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

NAVIGATION/ STEEL GRADES

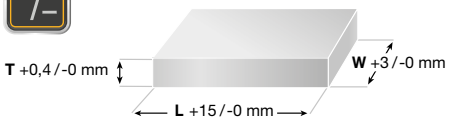
1.4841 314
1.4571 316Ti
1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

PREMIUM 1.4021 – AISI / SAE ~420 (X20Cr13)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 252 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,16 - 0,25	0 - 1,0	0 - 1,5	0 - 0,04	0 - 0,015	12,0 - 14,0

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

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www.premium-steel.eu/4021-5

Technical properties

Martensitic chromium steel with good mechanical properties (tempered condition). With the ability to polish this material to a high gloss finish it is ideally suited as knife steel. Good forgeability, medium weldability and is conditionally acid resistant. Working hardness: approx. 25 HRC (delivery condition) up to 47 HRC.

Applications

Automotive industry, power engineering, turbine and power plant construction, medical technology, mechanical engineering, petrochemical industry, cutting tool industry, knives, fasteners, architecture and decoration.

AISI / SAE 1.4021 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.4021

via smartphone / tablet:

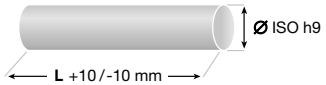
PREMIUM 1.4021 – AISI / SAE ~420 (X20Cr13)

Precision round steel without machining allowance [PRS]
Specification: bright drawn / ground, ISO h9

Ø [mm]	LENGTH [mm] 1.000		
	Available dimensions [•]		
8,0	•	»	
10,0	•	30,0	•
11,0	•	32,0	•
12,0	•	35,0	•
14,0	•	36,0	•
15,0	•	38,0	•
16,0	•	40,0	•
18,0	•	45,0	•
20,0	•	50,0	•
22,0	•	55,0	•
24,0	•	60,0	•
25,0	•	70,0	•
26,0	•	80,0	•
28,0	•		
»			

Further diameters on request.

Tolerances



Standard values
Delivery condition: maximum 252 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,16 - 0,25	0 - 1,0	0 - 1,5	0 - 0,04	0 - 0,015	12,0 - 14,0

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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Direct access to our online shop
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Technical properties
Martensitic chromium steel with good mechanical properties (tempered condition). With the ability to polish this material to a high gloss finish it is ideally suited as knife steel.
Good forgeability, medium weldability and is conditionally acid resistant. Working hardness: approx. 25 HRC (delivery condition) up to 47 HRC.

Applications
Automotive industry, power engineering, turbine and power plant construction, medical technology, mechanical engineering, petrochemical industry, cutting tool industry, knives, fasteners, architecture and decoration.

AISI / SAE 1.4021 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
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NAVIGATION/ STEEL GRADES
1.4841 314
1.4571 316Ti
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1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

ORDER THE SMALLEST AMOUNT - WITHOUT A MINIMUM ORDER VALUE!

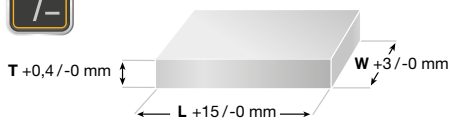
ABRAMS!® PREMIUM STEEL

PREMIUM 1.4006 – AISI / SAE 410 (X12Cr13)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 252 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni
0,08 - 0,15	0 - 1,0	0 - 1,5	0 - 0,04	0 - 0,03	11,5 - 13,5	0 - 0,75

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
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Technical properties

Corrosion resistant, martensitic steel (tempered condition), which showes good mechanical and good corrosion resistance in moderately aggressive substances. It has a low susceptibility to embrittlement, is polishable to a high gloss and can be used at temperatures up to 400°C. Working hardness: approx. 25 HRC (delivery condition) up to 31 HRC.

Applications

Hydraulic engineering, mechanical engineering, pump industry, oil industry, petrochemical industry, decorative uses, kitchen equipment, food industry, environmental technology, energy technology (hydroelectric power).

AISI / SAE 410 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
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NAVIGATION/ STEEL GRADES

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1.4418 S 165 M
1.4404/1.4401 316L/316
1.4305 303
1.4301 304
1.4125 440C
1.4122 1.4122
1.4112 440B
1.4104 430F
1.4057 431
1.4034 1.4034
1.4031 420
1.4021 420
1.4006 410

back to the previous page
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next page

SPECIFICATIONS !

Our delivery program contains 32.629 different specifications/standard dimensions.
Any dimension is available in different **heights**, **widths** and **lengths**. On request – according to your needs!

Precision flat steel without machining allowance [PFS] acc. to DIN 59350

For example: 100,0 x 20,0 x 1.000 mm

- **W** ground/milled, tol. +0,2/-0 mm
- **T** coplanar ground, tol. +0,05/-0 mm
- **L** milled/sawn, tol. +35/-0 mm
- **Exception: PREMIUM 1.1730 – AISI / SAE 1045: W** +0,4/-0 mm, **T** +0,25/-0 mm

Precision round steel without machining allowance [PRS]

- bright ground, tol.: ∅ ISO h8, **L** +10/-10 mm
- bright drawn/finely peeled/ground, tol.: ∅ ISO h9, **L** +10/-10 mm
- bright finely peeled, tol.: ∅ ISO h11, **L** +10/-10 mm

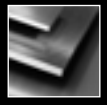
Precision flat steel with machining allowance [PRS/BA]

For example: 100,3 x 20,3 x 1.000 mm

- **W** ground/milled, tol. +0,4/-0 mm
- **T** coplanar ground/finely milled, tol. +0,4/-0 mm
- **L** milled/sawn, tol. +35/-0 mm

Precision round steel with machining allowance [PRS/BA]

- peeled/rough-turned, tol.: ∅ +tol./-0 mm, **L** +tol./-0 mm
- **Exception PREMIUM 1.3343 – AISI / SAE M2: L** 1.000 mm, tol. **L** +10/-10 mm
- **Particularity: PREMIUM 1.2826 – AISI / SAE 1.2826, PREMIUM 1.2360 – AISI / SAE ~Chipper, PREMIUM 1.2067 – AISI / SAE L3:** **Ø** are metric full values (for example 30,0 mm), therefore there is no basic machining allowance (for example 30,5 mm)



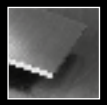
€co-Präz® [€co]

For example: 103 x 20,3 x 500 mm

- **W** sawn/black, tol. +3/-0 mm
- **T** finely milled, tol. +0,4/-0 mm
- **L** sawn/black, tol. +15/-0 mm

Round steel [RS]

- black, tol.: ∅ +1/-1 mm (aspired), **L** +tol./-0 mm



Hart-Präz® [Hart]

For exmaple: 250 x 10,2 x 500 mm

- **W** sawn/black, Tol. +10/-0 mm
- **T** coplanar ground, Tol. +0,2/-0 mm
- **L** sawn/black, Tol. +10/-0 mm

Planeness: +0,2/-0 mm of the entire surface (aspired)

Erosion block/EDM block – annealed or hardened [EB]

For example: 200,3 x 200,3 x 40,0 mm

- **Square dimension** milled/ground, tol. +2/-0 mm
- **T** finely milled/ground, tol. +0,25/-0 mm
- Grain structure is vertically directed in relation to base surface

STEEL CLASSIFICATIONS !

Steel grades are classified by their technical **properties** and/or by their **intended use**.

For example:
Cold work steel, hot work steel, plastic mould steel, high speed steel, corrosion resistant steel or case hardening steel.
Steel grades are often assigned to several classification groups.

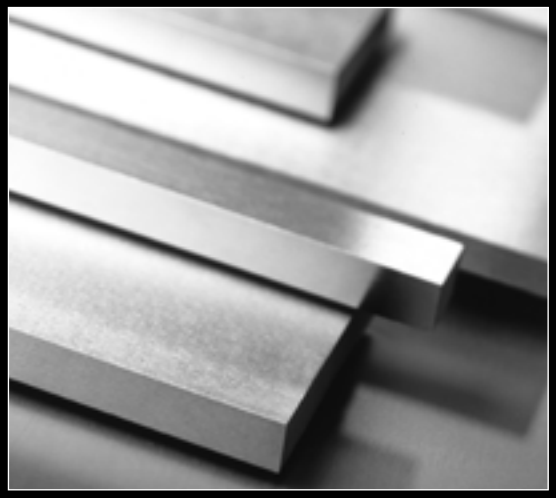
For more details on classification see www.steel-guide.eu/glossary

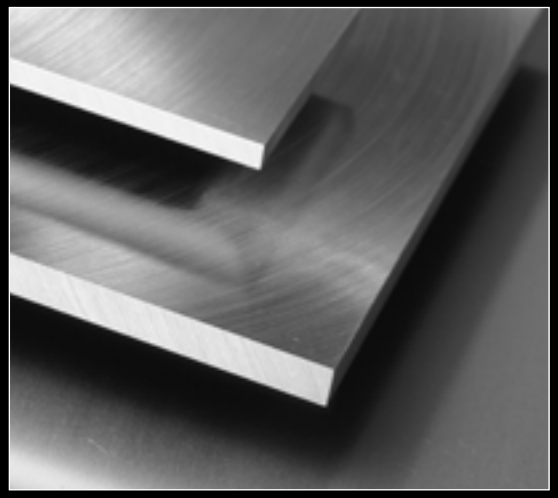
ABRAMS PREMIUM STEEL® – QUALITY THAT WILL IMPRESS YOU!

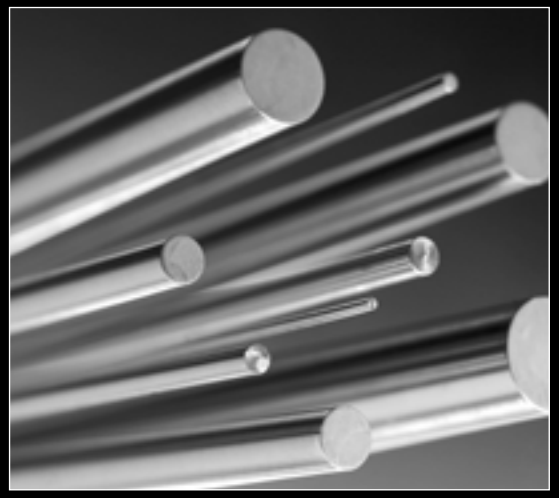
HEAT-TREATABLE STEEL, CASE HARDENING- & NITRIDING STEEL

STEEL GRADE

Description	PFS 500 mm	PFS 1.000 mm	PFS/BA 500 mm	PFS/BA 1.000 mm	PFS/BA 200, 300, 400, 600 mm	Eco-Präz® 300, 500, 1.000 mm	Hart-Präz® 250, 500 mm	Erosion block (annealed, hardened)	PRS ISO h8 / h9 /h11 1.000 mm	PRS/BA 500 mm	PRS/BA 1.000 mm	RS 500 mm	RS 1.000 mm	Delivery hardness (annealed/tempered) max. [HB]	Delivery hardness (hardened) approx. [HRC]	Approx. tensile strength [N/mm²] (deliv. cond.)	Max. working hardness [HRC]	Cold work steel	Hot work steel	Plastic mould steel	High speed steel	Corrosion resistant steel	Acid resistant steel	Heat-treatable steel	Case hardening steel	Nitriding steel	
PREMIUM 1.8550 AISI / SAE 1.8550	34CrAlNi7-10											✓	✓	323		1095	68								✓		**1.8550 1.8550**
PREMIUM 1.8519 AISI / SAE 1.8519	31CrMoV9											✓	✓	352		1100	64								✓		**1.8519 1.8519**
PREMIUM 1.7227 AISI / SAE 4140	42CrMoS4						✓							217		720	48	✓				✓					**1.7227 4140**
PREMIUM 1.7225 AISI / SAE 4140	42CrMo4						✓							217		720	48	✓				✓					**1.7225 4140**
PREMIUM 1.7225+QT AISI / SAE 4140+QT	42CrMo4+QT											✓	✓	380		1300	48	✓				✓					**1.7225+QT 4140+QT**
PREMIUM 1.7147 AISI / SAE 5120	20MnCr5 (EC100)				✓		✓					✓	✓	217		720	60	✓		✓				✓			**1.7147 5120**
PREMIUM 1.7131 AISI / SAE 5115	16MnCr5 (EC80)				✓		✓					✓	✓	217		720	60	✓		✓				✓			**1.7131 5115**
PREMIUM 1.6587 AISI / SAE 4820	18CrNiMo7-6											✓	✓	229		770	60							✓			**1.6587 4820**
PREMIUM 1.6582 AISI / SAE 4337	34CrNiMo6											✓	✓	352		1200	38					✓					**1.6582 4337**
PREMIUM 1.6580 AISI / SAE 4340	30CrNiMo8											✓	✓	380		1200	41					✓					**1.6580 4340**







NAVIGATION/ STEEL GRADES

1.8550 1.8550
1.8519 1.8519
1.7227 4140
1.7225 4140
1.7225+QT 4140+QT
1.7147 5120
1.7131 5115
1.6587 4820
1.6582 4337
1.6580 4340

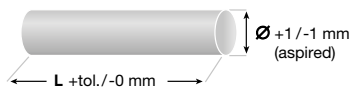
PREMIUM 1.8550 – AISI / SAE 1.8550 (34CrAlNi7)

Round steel [RS]
Specification: black

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
15	•	•
20	•	•
25	•	•
30	•	•
35	•	•
40	•	•
45	•	•
50	•	•
55	•	•
60	•	•
65		•
70		•
75		•
80		•
85		•
90		•
95		•
100		•

Larger diameters, up to 650 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 323 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	Al
0,30 - 0,37	0 - 0,40	0,40 - 0,70	0 - 0,025	0 - 0,03	1,50 - 1,80	0,15 - 0,25	0,85 - 1,15	0,8 - 1,2

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us
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E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/8550-8

Technical properties
The AISI / SAE 1.8550 is a CrAlNiMo alloyed nitriding steel (tempered condition), which is used for heavy duty parts in mechanical engineering due to it's high wear resistance.
Hardenable surface, difficult to weld.
Achievable nitriding hardness approx. 950 HV (approx. 68 HRC).

Applications
Mechanical engineering, plastic processing, automotive industry, plant engineering, engine and piston construction, drive technology, cam plates, eccentric, pinion shafts.

AISI / SAE 1.8550 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.8550

via smartphone / tablet:

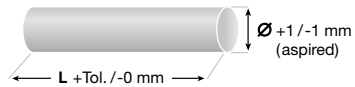
PREMIUM 1.8519 – AISI / SAE 1.8519 (31CrMoV9)

Round steel [RS]
Specification: black

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20	•	•
25	•	•
30	•	•
35	•	•
40	•	•
45	•	•
50	•	•
55	•	•
60	•	•
65		•
70		•
75		•
80		•
85		•
90		•
95		•
100		•

Larger diameters, up to 600 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 352 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0,27 - 0,34	0 - 0,4	0,4 - 0,7	0 - 0,025	0 - 0,035	2,3 - 2,7	0,15 - 0,25	0,10 - 0,25

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

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Direct access to our online shop

www.premium-steel.eu/8519-8

Technical properties

CrMoV alloyed nitriding steel (tempered condition), which is used for automotive engineering and propulsion techniques due to it's high wear resistance.
Achievable nitiring hardness approx. 800 HV (approx. 64 HRC).

Applications

Automotive industry, drive technology, mechanical engineering, valve construction, plant engineering, engine and piston construction.

AISI / SAE 1.8519 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.8519

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.8550 1.8550
1.8519 1.8519
1.7227 4140
1.7225 4140
1.7225+QT 4140+QT
1.7147 5120
1.7131 5115
1.6587 4820
1.6582 4337
1.6580 4340

GOOD MACHINABILITY …

… DUE TO ADDED SULPHUR – BS 709 M 40 !

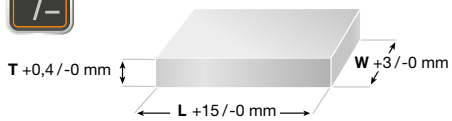
ABRAMS!®
PREMIUM STEEL

PREMIUM 1.7227 – AISI / SAE 4140 (42CrMoS4)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]															
	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3	60,3	70,3	80,3	90,3	100,3	120,3	140,3
	Available dimensions [■]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 217 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0,38 - 0,45	0 - 0,4	0,6 - 0,9	0 - 0,035	0,02 - 0,04	0,9 - 1,2	0,15 - 0,3

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
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Direct access to our online shop

www.premium-steel.eu/7227-5

Technical properties

Versatile heat-treatable steel (annealed condition) with high strength and high toughness, that is often used for demanding applications in automotive engineering. Better machinability due to the addition of sulphur, very low distortion.
Working hardness: approx. 27-48 HRC.

Applications

Mechanical engineering, machine components, axes, knuckles, connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembling parts.

AISI / SAE 1.7227 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/1.7227

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.8550 1.8550
1.8519 1.8519
1.7227 4140
1.7225 4140
1.7225+QT 4140+QT
1.7147 5120
1.7131 5115
1.6587 4820
1.6582 4337
1.6580 4340

NAVIGATION/ STEEL GRADES

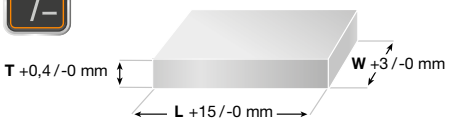
1.8550 1.8550
1.8519 1.8519
1.7227 4140
1.7225 4140
1.7225+QT 4140+QT
1.7147 5120
1.7131 5115
1.6587 4820
1.6582 4337
1.6580 4340

PREMIUM 1.7225 – AISI / SAE 4140 (42CrMo4)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]																
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	35,3	40,3	50,3	60,3	80,3
	Available dimensions [■]																
33	■	■	■	■	■	■	■	■	■	■	■	■					
43	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
343	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
353	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
363	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
383	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
403	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
423	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
443	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
453	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
463	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
483	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
503	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 217 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0,38 - 0,45	0 - 0,4	0,6 - 0,9	0 - 0,035	0 - 0,035	0,9 - 1,2	0,15 - 0,3

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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Direct access to our online shop

www.premium-steel.eu/4140-5

Technical properties

Heat-treatable steel (annealed condition) that can be used for a wide range of applications with a high degree of strength and toughness. Often used for demanding applications in automotive engineering. In quenched and tempered condition it is used in machine construction. Working hardness: 27-48 HRC.

Applications

Mechanical engineering, machine parts, axes, knuckles, connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembling parts.

AISI / SAE 4140 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/4140

via smartphone / tablet:

PREMIUM 1.7225 – AISI / SAE 4140 (42CrMo4)

€co-Präz® 1.000 [€co]
Length: 1.000 mm

WIDTH	THICKNESS [mm]																
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	35,3	40,3	50,3	60,3	80,3
	Available dimensions [■]																
33	■	■	■	■	■	■	■	■	■	■	■	■					
43	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
353	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
403	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
453	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
503	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

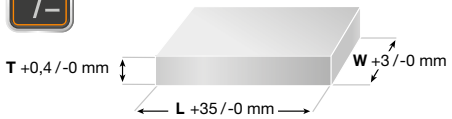
Technical properties

Heat-treatable steel (annealed condition) that can be used for a wide range of applications with a high degree of strength and toughness. Often used for demanding applications in automotive engineering. In quenched and tempered condition it is used in machine construction. Working hardness: 27 - 48 HRC.

Applications

Mechanical engineering, machine parts, axes, knuckles,connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembling parts.

Tolerances



Standard values

Delivery condition: maximum 217 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0,38 - 0,45	0 - 0,4	0,6 - 0,9	0 - 0,035	0 - 0,035	0,9 - 1,2	0,15 - 0,3

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On request - according to your needs!

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AISI / SAE 4140 – all at a glance!

Datasheets, online shop,
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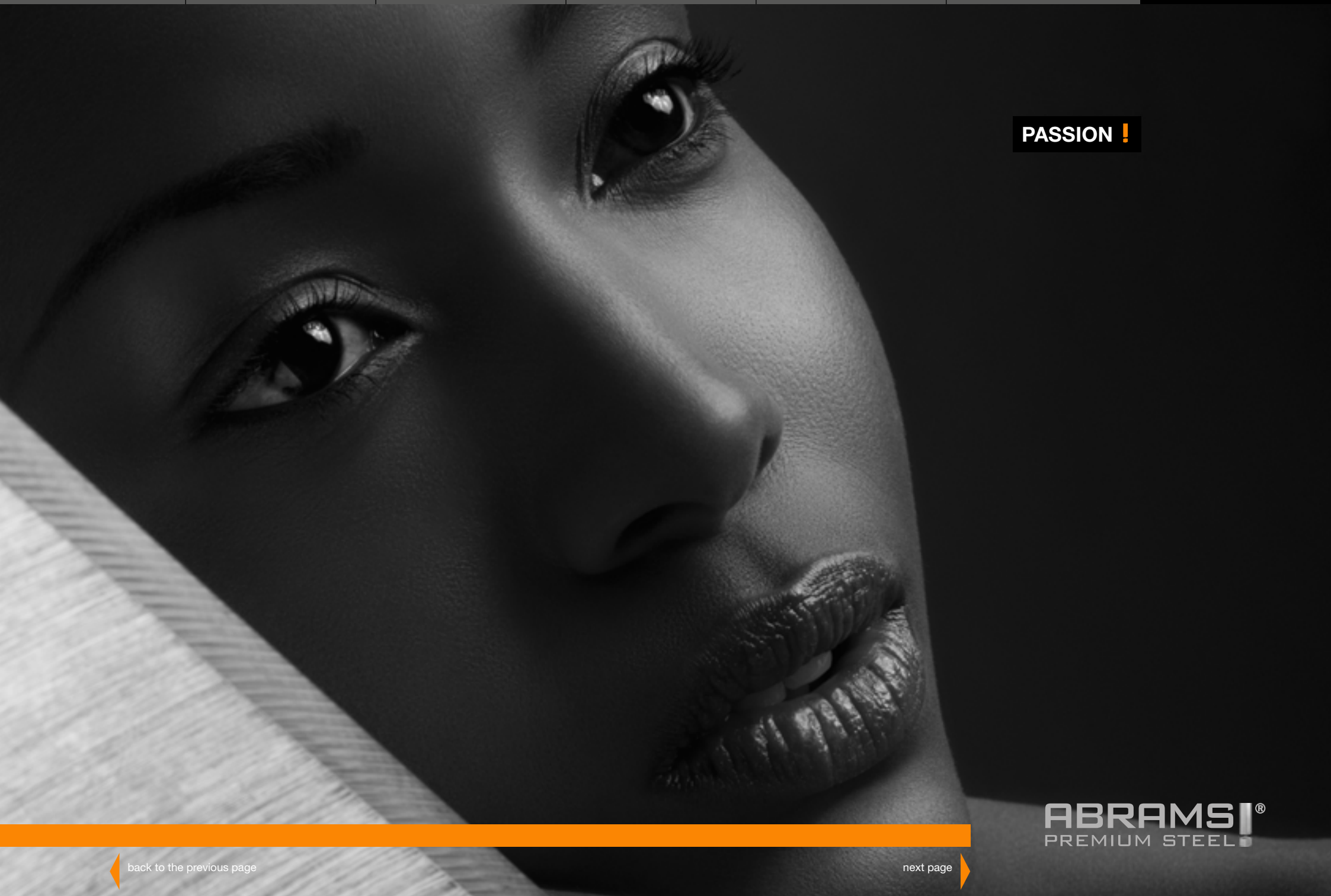
www.premium-steel.eu/4140

via smartphone/tablet:

NAVIGATION/ STEEL GRADES
1.8550 1.8550
1.8519 1.8519
1.7227 4140
1.7225 4140
1.7225+QT 4140+QT
1.7147 5120
1.7131 5115
1.6587 4820
1.6582 4337
1.6580 4340



ABRAMS!®
PREMIUM STEEL

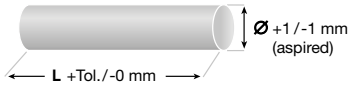
PREMIUM 1.7225+QT – AISI / SAE 4140+QT (42CrMo4+QT)

Round steel [RS]
Specification: black

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
16	•	•
18	•	•
20	•	•
22	•	•
25	•	•
30	•	•
32	•	•
35	•	•
40	•	•
42	•	•
45	•	•
50	•	•
55	•	•
60	•	•
65		•
70		•
75		•
80		•
90		•
100		•

Larger diameters, up to 120 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 380 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0,38 - 0,45	0 - 0,4	0,6 - 0,9	0 - 0,035	0 - 0,035	0,9 - 1,2	0,15 - 0,3

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/4140QT-8

Technical properties

Heat-treatable steel (tempered condition) that can be used for a wide range of applications with a high degree of strength and toughness. Often used for demanding applications in automotive engineering. In quenched and tempered condition it is used in machine construction.
Working hardness: 27 (min. hardness/delivery condition) - 48 HRC.

Applications

Mechanical engineering, machine parts, axes, knuckles, connecting rods, crankshafts, gear shafts, pinions, gears, bandages, base plates, assembling parts.

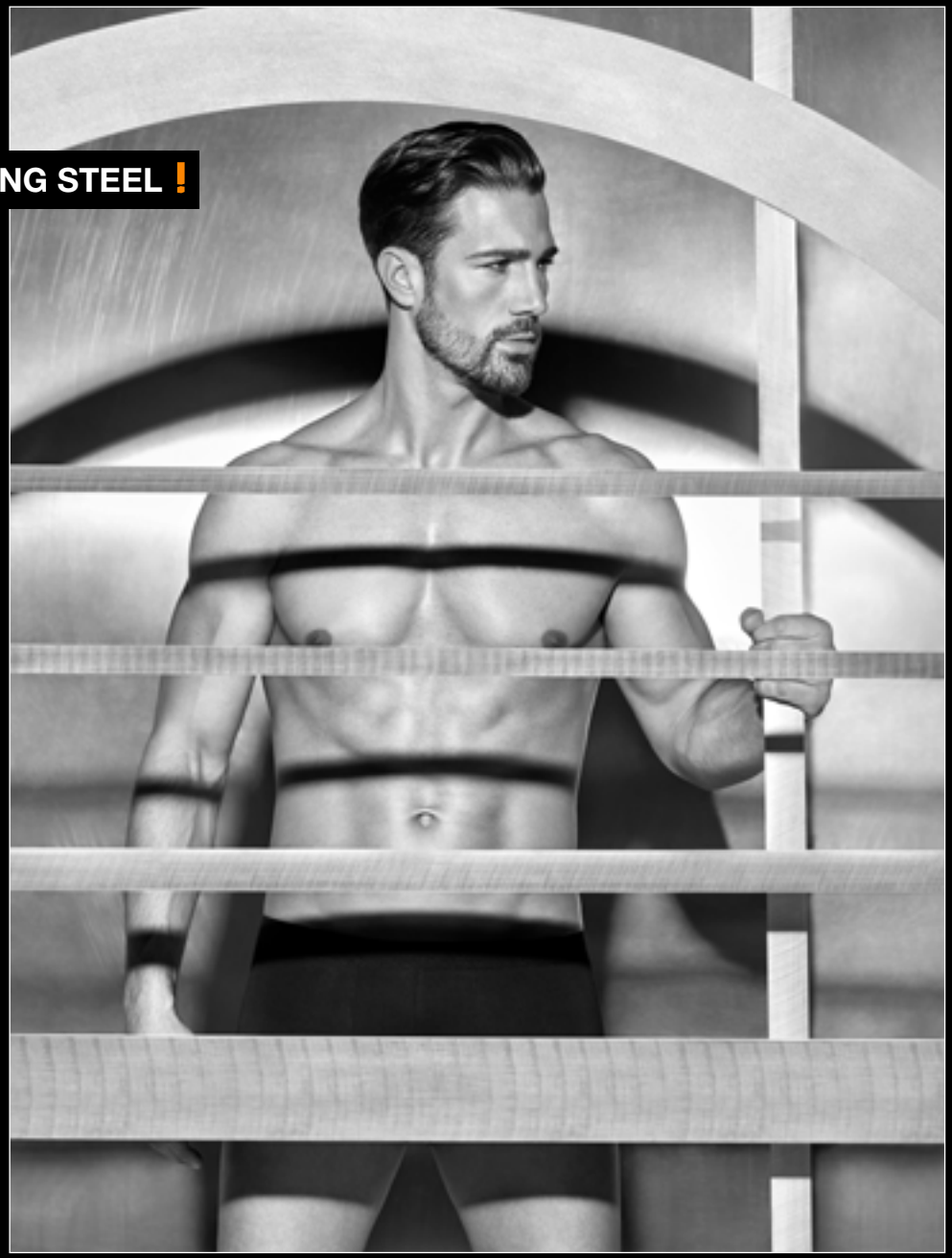
AISI / SAE 4140+QT – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/4140QT

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.8550 1.8550
1.8519 1.8519
1.7227 4140
1.7225 4140
1.7225+QT 4140+QT
1.7147 5120
1.7131 5115
1.6587 4820
1.6582 4337
1.6580 4340

CASE HARDENING STEEL !



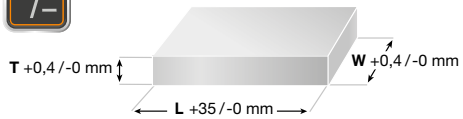
PREMIUM 1.7147 – AISI / SAE 5120 (20MnCr5, EC100)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]															
	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	36,3	40,3	50,3	60,3	70,3	80,3	100,3
	Available dimensions [■]															
15,3				■												
20,3	■	■	■	■	■	■										
25,3	■	■	■	■	■	■	■									
30,3	■	■	■	■	■	■	■	■								
32,3	■	■	■	■	■	■	■	■	■							
40,3	■	■	■	■	■	■	■	■		■	■					
50,3	■	■	■	■	■	■	■	■		■	■	■				
60,3	■	■	■	■	■	■	■	■		■	■	■	■			
70,3	■	■	■	■	■	■	■	■		■	■	■	■	■		
80,3	■	■	■	■	■	■	■	■		■	■	■	■		■	
100,3	■	■	■	■	■	■	■	■		■	■	■	■			■
120,3	■	■	■	■	■	■	■	■		■	■	■	■			
150,3	■	■	■	■	■	■	■	■		■	■	■	■			
180,3	■	■	■	■	■	■	■	■		■	■	■	■			
200,3	■	■	■	■	■	■	■	■		■	■	■	■			
250,3	■	■	■	■	■	■	■	■		■	■	■	■			
300,3	■	■	■	■	■	■	■	■		■	■	■	■			
500 *		■	■	■	■	■	■	■		■	■	■	■			

* Width and length sawn/black with +tol./-0 mm

Tolerances



Standard values

Delivery condition: maximum 217 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,17 - 0,22	0 - 0,4	1,1 - 1,4	0 - 0,025	0 - 0,035	1,0 - 1,3

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/7147-4

Technical properties

Cold work and plastic mould steel (group of case hardening steel) with the objective of high surface hardness with core toughness. Excellent machinability, good cold hobbing and polishing propeties. The tensile strength is a result of the combination of hardened surface and tough core. Working hardness (surface): 58-60 HRC.

Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic moulds, synthetic resin moulds, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, cardan joints.

AISI / SAE 5120 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/7147

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.8550 1.8550
1.8519 1.8519
1.7227 4140
1.7225 4140
1.7225+QT 4140+QT
1.7147 5120
1.7131 5115
1.6587 4820
1.6582 4337
1.6580 4340

NAVIGATION/ STEEL GRADES

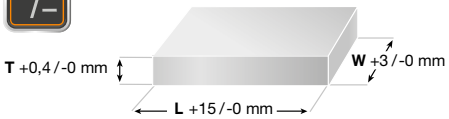
1.8550 1.8550
1.8519 1.8519
1.7227 4140
1.7225 4140
1.7225+QT 4140+QT
1.7147 5120
1.7131 5115
1.6587 4820
1.6582 4337
1.6580 4340

PREMIUM 1.7147 – AISI / SAE 5120 (20MnCr5, EC100)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]									
	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3
	Available dimensions [■]									
33	■	■	■	■	■	■	■	■		
43	■	■	■	■	■	■	■	■	■	
53	■	■	■	■	■	■	■	■	■	■
63	■	■	■	■	■	■	■	■	■	■
73	■	■	■	■	■	■	■	■	■	■
83	■	■	■	■	■	■	■	■	■	■
93	■	■	■	■	■	■	■	■	■	■
103	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■
343	■	■	■	■	■	■	■	■	■	■
353	■	■	■	■	■	■	■	■	■	■
363	■	■	■	■	■	■	■	■	■	■
383	■	■	■	■	■	■	■	■	■	■
403	■	■	■	■	■	■	■	■	■	■
423	■	■	■	■	■	■	■	■	■	■
443	■	■	■	■	■	■	■	■	■	■
453	■	■	■	■	■	■	■	■	■	■
463	■	■	■	■	■	■	■	■	■	■
483	■	■	■	■	■	■	■	■	■	■
503	■	■	■	■	■	■	■	■	■	■

Tolerances



Standard values

Delivery condition: maximum 217 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,17 - 0,22	0 - 0,4	1,1 - 1,4	0 - 0,025	0 - 0,035	1,0 - 1,3

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/5120-5

Technical properties

Cold work and plastic mould steel (group of case hardening steel) with the objective of high surface hardness with core toughness. Excellent machinability, good cold hobbing and polishing properties. The tensile strength is a result of the combination of hardened surface and tough core. Working hardness (surface): 58 - 60 HRC.

Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic moulds, synthetic resin moulds, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, cardan joints.

AISI / SAE 5120 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/5120

via smartphone / tablet:

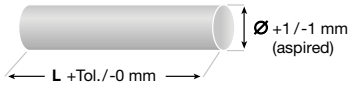
PREMIUM 1.7147 – AISI / SAE 5120 (20MnCr5, EC100)

Round steel [RS]
Specification: black

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20	•	•
25	•	•
30	•	•
35	•	•
40	•	•
45	•	•
50	•	•
55	•	•
60	•	•
65		•
70		•
75		•
80		•
85		•
90		•
100		•

Larger diameters, up to 200 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 217 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,17 - 0,22	0 - 0,4	1,1 - 1,4	0 - 0,025	0 - 0,035	1,0 - 1,3

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/5120-8

Technical properties

Cold work and plastic mould steel (group of case hardening steel) with the objective of high surface hardness with core toughness. Excellent machinability, good cold hobbing and polishing properties. The tensile strength is a result of the combination of hardened surface and tough core. Working hardness (surface): 58 - 60 HRC.

Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic moulds, synthetic resin moulds, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, cardan joints.

AISI / SAE 5120 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/5120

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.8550 1.8550
1.8519 1.8519
1.7227 4140
1.7225 4140
1.7225+QT 4140+QT
1.7147 5120
1.7131 5115
1.6587 4820
1.6582 4337
1.6580 4340

HEART AND SOUL IN STEEL !

ABRAMS! PREMIUM STEEL®

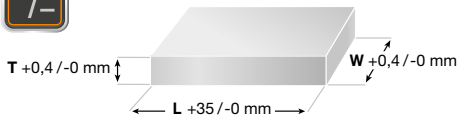
PREMIUM 1.7131 – AISI / SAE 5115 (16MnCr5, EC80)

Precision flat steel with machining allowance [PFS/BA]
Length: 1.000 mm

WIDTH	THICKNESS [mm]															
	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	36,3	40,3	50,3	60,3	70,3	80,3	100,3
	Available dimensions [■]															
15,3				■												
20,3	■	■	■	■	■	■										
25,3	■	■	■	■	■	■	■									
30,3	■	■	■	■	■	■	■	■								
32,3	■	■	■	■	■	■	■	■	■							
40,3	■	■	■	■	■	■	■	■		■	■					
50,3	■	■	■	■	■	■	■	■		■	■	■				
60,3	■	■	■	■	■	■	■	■		■	■	■	■			
70,3	■	■	■	■	■	■	■	■		■	■	■	■	■		
80,3	■	■	■	■	■	■	■	■		■	■	■	■		■	
100,3	■	■	■	■	■	■	■	■		■	■	■	■			■
120,3	■	■	■	■	■	■	■	■		■	■	■	■			
150,3	■	■	■	■	■	■	■	■		■	■	■	■			
180,3	■	■	■	■	■	■	■	■		■	■	■	■			
200,3	■	■	■	■	■	■	■	■		■	■	■	■			
250,3	■	■	■	■	■	■	■	■		■	■	■	■			
300,3	■	■	■	■	■	■	■	■		■	■	■	■			
500 *		■	■	■	■	■	■	■		■	■	■	■			

* Width and length sawn/black with +tol./-0 mm

Tolerances



Standard values

Delivery condition: maximum 217 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,14 - 0,19	0 - 0,4	1,0 - 1,3	0 - 0,025	0 - 0,035	0,8 - 1,1

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/5115-4

Technical properties

Cold work and plastic mould steel (group of case hardening steel) with the objective of high surface hardness with core toughness. Excellent machinability, good cold hobbing and polishing properties. The tensile strength is a result of the combination of hardened surface and tough core. Working hardness (surface): 58 - 60 HRC.

Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic moulds, synthetic resin moulds, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, cardan joints.

AISI / SAE 5115 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/5115

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.8550 1.8550
1.8519 1.8519
1.7227 4140
1.7225 4140
1.7225+QT 4140+QT
1.7147 5120
1.7131 5115
1.6587 4820
1.6582 4337
1.6580 4340

NAVIGATION/ STEEL GRADES

1.8550
1.8550
1.8519
1.8519
1.7227
4140
1.7225
4140
1.7225+QT
4140+QT
1.7147
5120
1.7131
5115
1.6587
4820
1.6582
4337
1.6580
4340

PREMIUM 1.7131 – AISI / SAE 5115 (16MnCr5, EC80)

€co-Präz® 500 [€co]
Length: 500 mm

WIDTH	THICKNESS [mm]													
	2,3	3,3	4,3	5,3	6,3	8,3	10,3	12,3	15,3	20,3	25,3	30,3	40,3	50,3
	Available dimensions [■]													
33	■	■	■	■	■	■	■	■	■	■	■	■		
43	■	■	■	■	■	■	■	■	■	■	■	■	■	
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■
93	■	■	■	■	■	■	■	■	■	■	■	■	■	■
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■
323	■	■	■	■	■	■	■	■	■	■	■	■	■	■
343	■	■	■	■	■	■	■	■	■	■	■	■	■	■
353	■	■	■	■	■	■	■	■	■	■	■	■	■	■
363	■	■	■	■	■	■	■	■	■	■	■	■	■	■
383	■	■	■	■	■	■	■	■	■	■	■	■	■	■
403	■	■	■	■	■	■	■	■	■	■	■	■	■	■
423	■	■	■	■	■	■	■	■	■	■	■	■	■	■
443	■	■	■	■	■	■	■	■	■	■	■	■	■	■
453	■	■	■	■	■	■	■	■	■	■	■	■	■	■
463	■	■	■	■	■	■	■	■	■	■	■	■	■	■
483	■	■	■	■	■	■	■	■	■	■	■	■	■	■
503	■	■	■	■	■	■	■	■	■	■	■	■	■	■

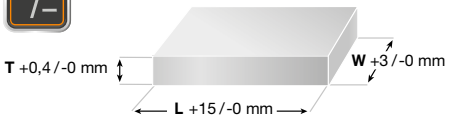
Technical properties

Cold work and plastic mould steel (group of case hardening steel) with the objective of high surface hardness with core toughness. Excellent machinability, good cold hobbing and polishing properties. The tensile strength is a result of the combination of hardened surface and tough core. Working hardness (surface): 58 - 60 HRC.

Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic moulds, synthetic resin moulds, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, cardan joints.

Tolerances



Standard values

Delivery condition: maximum 217 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,14 - 0,19	0 - 0,4	1,0 - 1,3	0 - 0,025	0 - 0,035	0,8 - 1,1

If you need customised dimensions -

Any dimension available in different heights, widths and lengths.
On request - according to your needs!

Contact us

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E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/5115-5

AISI / SAE 5115 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/5115

via smartphone / tablet:

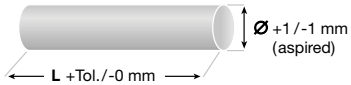
PREMIUM 1.7131 – AISI / SAE 5115 (16MnCr5, EC80)

Round steel [RS]
Specification: black

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20	•	•
25	•	•
30	•	•
35	•	•
40	•	•
45	•	•
50	•	•
55	•	•
60	•	•
65		•
70		•
75		•
80		•
85		•
90		•
100		•

Larger diameters, up to 200 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values

Delivery condition: maximum 217 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0,14 - 0,19	0 - 0,4	1,0 - 1,3	0 - 0,025	0 - 0,035	0,8 - 1,1

If you need customised dimensions -

Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us

T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop

www.premium-steel.eu/5115-8

Technical properties

Cold work and plastic mould steel (group of case hardening steel) with the objective of high surface hardness with core toughness. Excellent machinability, good cold hobbing and polishing properties. The tensile strength is a result of the combination of hardened surface and tough core. Working hardness (surface): 58 - 60 HRC.

Applications

Mechanical engineering, jig construction, plant engineering, apparatus engineering, plastic processing, plastic moulds, synthetic resin moulds, base plates, bending bars, guide columns, gear parts, joint parts, shafts, gears, rods, bevel gears, crown wheels, piston pins, camshafts, bolts, pins, cardan joints.

AISI / SAE 5115 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/5115

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.8550 1.8550
1.8519 1.8519
1.7227 4140
1.7225 4140
1.7225+QT 4140+QT
1.7147 5120
1.7131 5115
1.6587 4820
1.6582 4337
1.6580 4340

STEEL MADE WITH ”STYLE“!

ABRAMS® PREMIUM STEEL

back to the previous page
next page

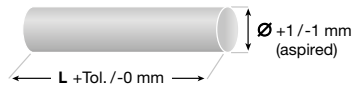
PREMIUM 1.6587 – AISI / SAE 4820 (18CrNiMo7-6)

Round steel [RS]
Specification: black

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20	•	•
25	•	•
30	•	•
35	•	•
40	•	•
45	•	•
50	•	•
55	•	•
60	•	•
65		•
70		•
75		•
80		•
85		•
90		•
95		•
100		•

Larger diameters, up to 700 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,15 - 0,21	0 - 0,4	0,5 - 0,9	0 - 0,025	0 - 0,035	1,5 - 1,8	0,25 - 0,35	1,4 - 1,7

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

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E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/4820-8

Technical properties
CrNiMo alloyed case-hardening steel for highly stressed components with high core strength and toughness. This steel is used for gear parts such as ring gears or drive pinions and gear wheels. The AISI / SAE 4820 is usually difficult to weld.
Surface hardenss according to case hardness: approx. 58-60 HRC.

Applications
Shafts, gear parts, gears, bevel gears, driving pinion.

AISI / SAE 4820 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/4820

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.8550 1.8550
1.8519 1.8519
1.7227 4140
1.7225 4140
1.7225+QT 4140+QT
1.7147 5120
1.7131 5115
1.6587 4820
1.6582 4337
1.6580 4340

NAVIGATION/ STEEL GRADES

1.8550
1.8550
1.8519
1.8519
1.7227
4140
1.7225
4140
1.7225+QT
4140+QT
1.7147
5120
1.7131
5115
1.6587
4820
1.6582
4337
1.6580
4340

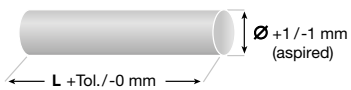
PREMIUM 1.6582 – AISI / SAE 4337 (34CrNiMo6)

Round steel [RS]
Specification: black

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
20	•	•
25	•	•
30	•	•
35	•	•
40	•	•
45	•	•
50	•	•
55	•	•
60	•	•
65		•
70		•
75		•
80		•
85		•
90		•
95		•
100		•

Larger diameters, up to 700 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 352 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,3 - 0,38	0 - 0,4	0,5 - 0,8	0 - 0,025	0 - 0,035	1,3 - 1,7	0,15 - 0,3	1,3 - 1,7

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us
T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/4337-8

Technical properties
CrNiMo alloyed heat-treatable steel (tempered condition) for components with high strength and toughness. It is used for through-hardening components in automotive and mechanical engineering. The material is usually difficult to weld. Components are usually used in the quenched and tempered state. An optionally achievable surface hardness through nitriding: approx. 58-62HRC.

Applications
Shafts, gear parts, gears, bevel gears, driving pinion.

AISI / SAE 4337 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/4337

via smartphone/tablet:

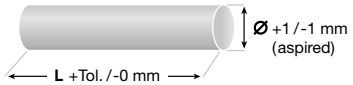
PREMIUM 1.6580 – AISI / SAE 4340 (30CrNiMo8)

Round steel [RS]
Specification: black

Ø [mm]	LENGTH [mm] 500	1.000
	Available dimensions [•]	
25	•	•
30	•	•
35	•	•
40	•	•
45	•	•
50	•	•
55	•	•
60	•	•
65		•
70		•
75		•
80		•
85		•
90		•
95		•
100		•

Larger diameters, up to 700 mm, and different lengths (e.g. round blanks) available on request!

Tolerances



Standard values
Delivery condition: maximum 380 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,26 - 0,34	0 - 0,4	0,3 - 0,6	0 - 0,025	0 - 0,035	1,8 - 2,2	0,3 - 0,5	1,8 - 2,2

If you need customised dimensions -
Any dimension available in different lengths (e.g. round blanks).
On request - according to your needs!

Contact us
T: +49 (0) 5 41/3 57 39-0
E: sales@abrams-industries.eu

Direct access to our online shop
www.premium-steel.eu/4340-8

Technical properties
CrNiMo alloyed heat-treatable steel (tempered condition) for components with high strength and toughness. It is used for through-hardening components in automotive and mechanical Engineering. The material is usually difficult to weld. Components are usually used in the quenched and tempered state. An optionally achievable surface hardness through nitriding: approx. 60-64HRC.

Applications
Shafts, gear parts, gears, bevel gears, driving pinion.

AISI / SAE 4340 – all at a glance!
Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.eu/4340

via smartphone / tablet:

NAVIGATION/ STEEL GRADES
1.8550 1.8550
1.8519 1.8519
1.7227 4140
1.7225 4140
1.7225+QT 4140+QT
1.7147 5120
1.7131 5115
1.6587 4820
1.6582 4337
1.6580 4340

ABRAMS ARTPROJECTE !

„EXCELLENT WORK!“,

... ABRAMS PREMIUM STEEL® is proud to have produced a photographic calendar of the highest quality which has been very well received by our valued customers.

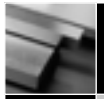
It has given us great pleasure to have had parts of our calendar included several times in the “JAHRBUCH DER WERBUNG/ GERMANY” as well as in a variety of trade journals. Through our photographic art project, we have sought to contrast the highly technical qualities of our steel with the softness and beauty of the human body.

To date, our efforts have been presented in six limited edition art calendars, which we trust will continue to bring delight to your working day.

For more information about all our art projects see www.premium-steel.eu/artprojects. You can also download our free PREMIUM-SCREENSAVER with all the pictures of the previous calendar projects and select pictures every three month as PREMIUM-WALLPAPER for your PC-screen or tablet (see category ”downloads“).

WEIGHT TABLES !

Weight table for flat, square and round precision steel (in kg with a nominal dimension of 1.000 mm in length).
Also see www.premium-steel.eu/weights



	THICKNESS [mm]													
	2	3	4	5	6	8	10	12	15	20	25	30	40	50
WIDTH	Weight [kg/m]													
10	0,2	0,2	0,3	0,4	0,5	0,6	0,8							
15	0,2	0,4	0,5	0,6	0,7	0,9	1,2	1,4	1,8					
20	0,3	0,5	0,6	0,8	0,9	1,3	1,6	1,9	2,4	3,1				
25	0,4	0,6	0,8	1,0	1,2	1,6	2,0	2,4	2,9	3,9	4,9			
30	0,5	0,7	0,9	1,2	1,4	1,9	2,4	2,8	3,5	4,7	5,9	7,1		
40	0,6	0,9	1,3	1,6	1,9	2,5	3,1	3,8	4,7	6,3	7,9	9,4	12,6	
50	0,8	1,2	1,6	2,0	2,4	3,1	3,9	4,7	5,9	7,9	9,8	11,8	15,7	19,6
60	0,9	1,4	1,9	2,4	2,8	3,8	4,7	5,7	7,1	9,4	11,8	14,1	18,8	23,6
70	1,1	1,6	2,2	2,7	3,3	4,4	5,5	6,6	8,2	11,0	13,7	16,5	22,0	27,5
80	1,3	1,9	2,5	3,1	3,8	5,0	6,3	7,5	9,4	12,6	15,7	18,8	25,1	31,4
100	1,6	2,4	3,1	3,9	4,7	6,3	7,9	9,4	11,8	15,7	19,6	23,6	31,4	39,3
125	2,0	2,9	3,9	4,9	5,9	7,9	9,8	11,8	14,7	19,6	24,5	29,4	39,3	49,1
150	2,4	3,5	4,7	5,9	7,1	9,4	11,8	14,1	17,7	23,6	29,4	35,3	47,1	58,9
175	2,7	4,1	5,5	6,9	8,2	11,0	13,7	16,5	20,6	27,5	34,3	41,2	55,0	68,7
200	3,1	4,7	6,3	7,9	9,4	12,6	15,7	18,8	23,6	31,4	39,3	47,1	62,8	78,5
250	3,9	5,9	7,9	9,8	11,8	15,7	19,6	23,6	29,4	39,3	49,1	58,9	78,5	98,1
300	4,7	7,1	9,4	11,8	14,1	18,8	23,6	28,3	35,3	47,1	58,9	70,7	94,2	117,8

	DIAMETER Ø [mm]														
	3	5	10	15	20	25	30	40	50	60	70	80	90	100	»
	Weight [kg/m]														
	0,1	0,2	0,6	1,4	2,5	3,9	5,6	9,9	15,5	22,3	30,4	39,7	50,2	62,0	

»	120	140	160	180	200	250	300	350	400	450	500	550	600	650	
	Weight [kg/m]														
	89,3	121,5	158,7	200,9	248,0	387,5	558,0	759,5	992,0	1.255,5	1.550,0	1.875,5	2.232,0	2.619,5	

TRANSPARENCY IN ALL DETAILS !

Information regarding our portfolio (valid as of January 2023):
This product catalogue provides you with an overview of our 70 steel grades in 32.629 dimensions. For our current prices please refer to our online shop under www.premium-steel.eu/shop

Minimum order value:
Any quantity - however small - there is no minimum order value for you!

Packaging Fees:
All products are carefully packed.
The packaging is free of charge!

Handling and Delivery Fees:
Consignments of up to 40kg are dispatched via parcel.
Consignments above 40kg are dispatched via freight forwarders.
At ABRAMS PREMIUM STEEL®, we base all of our shipping costs on the principle that they are as transparent and comprehensible for our clients as possible.

Thus, please visit www.premium-steel.eu/deliveryfees to find our current shipping costs.

For larger quantities please contact us.

For deliveries outside the EU, deliveries on Saturdays or express delivery services (guaranteed date and time) please contact us.

Delivery Time:
Standard products defined in our programme will be delivered as quickly as possible from stock. Individual custom requests will be manufactured and delivered on a short term basis.
The standard delivery time is 3-5 working days.

Condition of payment:
Within 14 days net from invoice (subject to a positve credit screening).

HELPFUL INFORMATION CONCERNING PRECISION STEEL	
ABRAMS PREMIUM STEEL®	www.premium-steel.eu
ABRAMS PREMIUM STEEL® Shop	www.premium-steel.eu/shop
Steel grades	www.premium-steel.eu/steelgrades
Steel specifications	www.premium-steel.eu/specifications
Steel weight table (flat- and round)	www.premium-steel.eu/weights
Current alloy surcharges	www.premium-steel.eu/alloysurcharges
Current delivery informations	www.premium-steel.eu/deliveryfees

ABRAMS INDUSTRIES®	
ABRAMS STEEL GUIDE®	www.steel-guide.eu
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ABRAMS® News	www.abrams-industries.eu/news
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ABRAMS PREMIUM ALUMINIUM®	www.premium-aluminium.eu
ABRAMS® PREMIUM TOOLS	www.premium-gewindebohrer.eu
ABRAMS® Artprojects	www.abrams-artprojects.eu

The price list gives an overview of the general attributes and possible applications of precision tool steel which will support your choice of product depending on the various applications of the products, a guarantee of specific attributes and values must be confirmed contractually.

Errors and printing mistakes may occur.
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ABRAMS! PREMIUM STEEL®

								1.8550
								1.8519
1.2990 mod.	1.2714+QT L6+QT	1.2361	1.2312 P20+S			1.4841 314	1.4122	1.7227 4140
1.2842 O2	1.2709 ESU	1.2360 ~ Chipper	1.2311 P20	1.2083 ESU 420 ESR		1.4571 316Ti	1.4112 440B	1.7225 4140
1.2510 O1	1.2550 S1	1.2358	1.2294	1.2080 mod. D3 mod.		1.4418 S 165 M	1.4104 430F	1.7225+QT 4140+QT
1.2826	1.2436 D6	1.2344 H13	1.2210 L2	1.2067 L3 / L1		1.4404 316L	1.4057 431	1.7147 5120
1.2767 6F7	1.2379 D2	1.2344 ESU H13 ESR	1.2162	1.1730 1045	HSS 1.3343 M2	1.4401 316	1.4034	1.7131 5115
1.2767 ESU 6F7 ESR	1.2367	1.2343 H11	1.2099	1.0570 (St 52-3)	HSS PM 30 PM 30	1.4305 303	1.4031 420	1.6587 4820
1.2738 P20+Ni	1.2365 H10	1.2343 ESU H11 ESR	1.2085 420FM	Toolox 33	HSS PM 23 M3	1.4301 304	1.4021 420	1.6582 4337
1.2714 L6	1.2363 A2	1.2316	1.2083 420	Toolox 44	HSS PM 4 M4	1.4125 440C	1.4006 410	1.6580 4340

+ 70 STEELGRADES in 32.629 DIMENSIONS as
+ PRECISION FLAT STEEL with / without machining allowance
+ €co-Präz® - Standardized precision blanks
+ Hart-Präz® - Hardened precision plates
+ PRECISION ROUND STEEL with / without machining allowance
+ ROUNDSTEEL
+ EROSION BLOCK annealed / hardened
+ WITHOUT MINIMUM ORDER VALUE AND AMOUNT
+ SPECIAL CUSTOM DIMENSIONS SAWN - MILLED - GROUND

= SUM OF YOUR COMPETITIVE ADVANTAGES!

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49084 Osnabrück/Germany

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www.steel-guide.eu
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E: sales@abrams-industries.eu

* You will be redirected to our English speaking accounts management team in Germany.