



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,



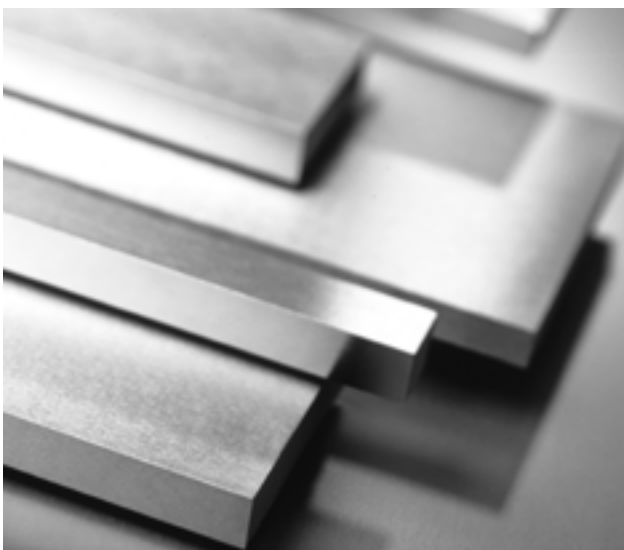
Dr. Jürgen Abrams
Managing Director

VERSATILE !

ABRAMS® PREMIUM STEEL

PREMIUM STEEL

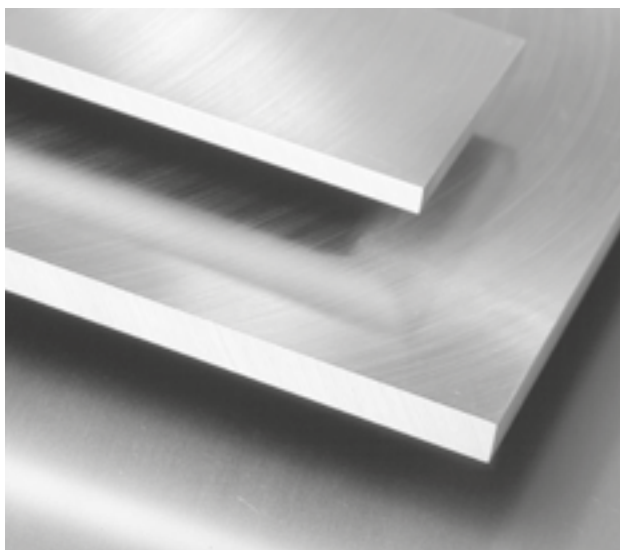
- 70 steel grades in 32,629 dimensions
- **PRECISION FLAT STEEL** with / without machining allowance
- **€co-Präz®** - Standardized precision blanks
- **Hart-Präz®** - Hardened precision plates
- **PRECISION ROUND STEEL**
with / without machining allowance
- **ROUND STEEL**
- **EROSION BLOCK** annealed / 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
 - For blind holes
 - **M-DIN 371-Form B**
 - **M-DIN 371-Form C**
 - **M-DIN 376-Form B**
 - **M-DIN 376-Form C**
- Metric fine thread
 - For clearance holes
 - For blind holes
 - **MF-DIN 374-Form B**
 - **MF-DIN 374-Form C**



STEP 2 A

For example, click to open the property view.

ABRAMS®
PREMIUM STEEL

1.2990 mod.	1.2714-OT	1.2361	1.2312		1.4041	1.4122	1.2727
1.2842 BO 2	1.2709 ESUEERS	1.2360	1.2311	1.2083 - Chipper	1.4041	1.4122	1.2727
1.2510 BO 1	1.2550 BS 1	1.2358	1.2294	1.2080 mod BD 3 mod	1.4041	1.4122	1.2727
1.2826	1.2436 BO 6	1.2344 BH 12	1.2210	1.2067 BL 300 L	1.4041	1.4122	1.2727
1.2767	1.2379 BO 2	1.2344 ESR	1.2162	1.1770	1.4041	1.4122	1.2727
1.2767 ESUEERS	1.2367	1.2342 BH 11	1.2089	1.1870 (BH 12-3)	1.4041	1.4122	1.2727
1.2738	1.2365 BH 10	1.2343 ESR	1.2085	Toolox 33	1.4041	1.4122	1.2727
1.2714	1.2363 BA 2	1.2316	1.2083	Toolox 44	1.4041	1.4122	1.2727

Properties

☒ Tensile strength (deliv...
810 N/mm²

☐ Working hardness

☒ Working temperature
200 °C

☐ Machinability

☐ Toughness

☒ Wear resistance
★★★★★

☒ Corrosion resistance
★★★★★

STEP 3 A

Click to choose each of the properties to optimise them.

ABRAMS®
PREMIUM STEEL

1.2990 mod.	1.2714-OT	1.2361	1.2312		1.4041	1.4122	1.2727
1.2842 BO 2	1.2709 ESUEERS	1.2360	1.2311	1.2083 - Chipper	1.4041	1.4122	1.2727
1.2510 BO 1	1.2550 BS 1	1.2358	1.2294	1.2080 mod BD 3 mod	1.4041	1.4122	1.2727
1.2826	1.2436 BO 6	1.2344 BH 12	1.2210	1.2067 BL 300 L	1.4041	1.4122	1.2727
1.2767	1.2379 BO 2	1.2344 ESR	1.2162	1.1770	1.4041	1.4122	1.2727
1.2767 ESUEERS	1.2367	1.2342 BH 11	1.2089	1.1870 (BH 12-3)	1.4041	1.4122	1.2727
1.2738	1.2365 BH 10	1.2343 ESR	1.2085	Toolox 33	1.4041	1.4122	1.2727
1.2714	1.2363 BA 2	1.2316	1.2083	Toolox 44	1.4041	1.4122	1.2727

Wear resistance

☒ Wear resistance:

★★★★★

less important

very important

+

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

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.

ABRAMS®
PREMIUM STEEL

PREMIUM BS BD 3 mod.							
Properties of this steel grade							
Chemical composition of this steel grade							
Specifications of this steel grade							
Alternatives to this steel grade							
ABRAMS online-Shop							
1.2714	1.2363 BA 2	1.2316	1.2083	Toolox 44	HSS PM 4 BM 4	1.4125 440C	1.4006 410 S 21
							1.6580 823 M 30

STEP 3 B

Here we have chosen the function "alternatives to the grade BS BD 3 mod".

ABRAMS®
PREMIUM STEEL

1.2990 mod.	1.2714-OT	1.2361	1.2312		1.4041	1.4122	1.2727
1.2842 BO 2	1.2709 ESUEERS	1.2360	1.2311	1.2083 - Chipper	1.4041	1.4122	1.2727
1.2510 BO 1	1.2550 BS 1	1.2358	1.2294	1.2080 mod BD 3 mod	1.4041	1.4122	1.2727
1.2826	1.2436 BO 6	1.2344 BH 12	1.2210	1.2067 BL 300 L	1.4041	1.4122	1.2727
1.2767	1.2379 BO 2	1.2344 ESR	1.2162	1.1770	1.4041	1.4122	1.2727
1.2767 ESUEERS	1.2367	1.2342 BH 11	1.2089	1.1870 (BH 12-3)	1.4041	1.4122	1.2727
1.2738	1.2365 BH 10	1.2343 ESR	1.2085	Toolox 33	1.4041	1.4122	1.2727
1.2714	1.2363 BA 2	1.2316	1.2083	Toolox 44	1.4041	1.4122	1.2727

Properties

☒ Tensile strength (deliv...
850 N/mm²

☒ Working hardness
62 HRC

☒ Working temperature
200 °C

☒ Machinability
★★★★★

☒ Toughness
★★★★★

☒ Wear resistance
★★★★★

☒ Corrosion resistance
★★★★★

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.

As a result, a highlighted list of steel grades appears with similar or possibly better properties than BS BD 3 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:



① FLEXIBILITY

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



② SHORT DELIVERY TIMES

because we have large storage capabilities
of raw materials and precision steel.

PREMIUM QUALITY RIGHT DOWN TO THE FINEST DETAIL !



③ 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 – BS 1.1730:** **W** +0.4/-0 mm, **T** +0.25/-0 mm



Precision round steel without machining allowance [PRS]

- bright ground, tol.: Ø ISO h8, **L** +10/-10 mm
- bright drawn/finely peeled/ground, tol.: Ø ISO h9, **L** +10/-10 mm
- bright finely peeled, tol.: Ø 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.: Ø +tol./-0 mm, **L** +tol./-0 mm
- **Exception PREMIUM 1.3343 – BS BM 2**
L 1,000 mm, tol. **L** +10/-10 mm
- **Particularity: PREMIUM 1.2826 – BS 1.2826, PREMIUM 1.2360 – BS ~ Chipper /~ mod. PREMIUM 1.2067 – BS 1.2367:**
Ø are metric full values (for example 30.0 mm), therefore there is no basic machining allowance (for example 30.5 mm)



Eco-Präz® [Eco]

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



Hart-Präz® [Hart]

For example: 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.co.uk/glossary



ABRAMS®		TOOL STEEL I				TOOL STEEL II				HIGH SPEED STEEL				STAINLESS STEEL corrosion resistant / acid resistant				HEAT-TREATABLE STEEL. CASE HARDENING- & NITRIDING STEEL				INFORMATION						
TOOL STEEL I STEEL GRADE		Description	Description																1.2990 mod. 1.2990 mod.									
			PFS 500 mm	PFS 1 000 mm	PFS /BA 500 mm	PFS /BA 1 000 mm	PFS /BA 200, 300, 400, 800 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. [HRC]	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
PREMIUM 1.2990 mod. BS 1.2990 mod.		~X100CrMoV8-2					✓				✓	✓			250		850	63	✓		✓							1.2990 mod. 1.2990 mod.
PREMIUM 1.2842/1.2510 BS BO 2/BO 1		90MnCrV8/100MnCrW4	✓	✓	✓	✓		✓		✓	✓	✓			229	57	770	62	✓		✓							1.2842 BO 2/BO 1
PREMIUM 1.2826 BS 1.2826		60MnSiCr4								✓		✓			220		750	60	✓									1.2826 1.2826
PREMIUM 1.2767 BS 1.2767		45NiCrMo16			✓	✓					✓	✓	✓		260		880	54	✓	✓	✓							1.2767 1.2767
PREMIUM 1.2767 ESU BS 1.2767 ESR		45NiCrMo16					✓								260		880	54	✓	✓	✓							1.2767 ESU 1.2767 ESR
PREMIUM 1.2738 BS 1.2738		40CrMnNiMo8-6-4					✓				✓	✓			325		1100	50	✓		✓							1.2738 1.2738
PREMIUM 1.2714 BS 1.2714		55NiCrMoV7					✓				✓	✓			250		850	54		✓								1.2714 1.2714
PREMIUM 1.2714+QT BS 1.2714+QT		55NiCrMoV7+QT					✓						✓	✓	400		1350	54		✓								1.2714+QT 1.2714+QT
PREMIUM 1.2709 ESU BS 1.2709 ESR		X3NiCoMoTi18-9-5									✓	✓	✓	✓	325		1100	56	✓	✓	✓							1.2709 ESU 1.2709 ESR
PREMIUM 1.2550 BS BS 1		60WCrV8					✓				✓	✓			229		770	60	✓	✓								1.2550 BS 1
PREMIUM 1.2436 BS BD 6		X210CrW12	✓			✓	✓		✓			✓	✓		255	59	860	63	✓									1.2436 BD 6
PREMIUM 1.2379 BS BD 2		X153CrMoV12				✓	✓	✓	✓	✓	✓	✓			255	57	860	62	✓		✓							1.2379 BD 2
PREMIUM 1.2367 BS 1.2367		X38CrMoV5-3					✓				✓	✓			229		770	54		✓	✓							1.2367 1.2367
PREMIUM 1.2365 BS BH 10		32CrMoV12-28					✓				✓	✓			229		770	52		✓	✓							1.2365 BH 10
PREMIUM 1.2363 BS BA 2		X100CrMoV5-1				✓	✓				✓	✓			241		815	62	✓		✓							1.2363 BA 2
PREMIUM 1.2361 BS 1.2361		X91CrMoV18				✓		✓	✓		✓	✓			265	53	900	58	✓		✓		✓	✓				1.2361 1.2361
PREMIUM 1.2360/mod. BS ~ Chipper/mod.		X48CrMoV8-1-1					✓				✓	✓			250		850	60	✓									1.2360 ~ Chipper
PREMIUM 1.2358 BS 1.2358		60CrMoV18-5					✓								325		1100	60	✓	✓	✓							1.2358 1.2358
PREMIUM 1.2344 BS BH 13		X40CrMoV5-1									✓	✓			229		770	56		✓	✓							1.2344 BH 13
PREMIUM 1.2344 ESU BS BH 13 ESR		X40CrMoV5-1					✓								229		770	56		✓	✓							1.2344 ESU BH 13 ESR

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

€co-Präz® 500 [€co]

Length: 500 mm

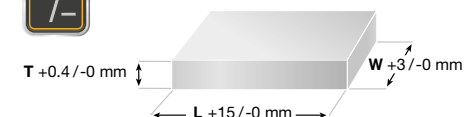
	THICKNESS [mm]																
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3	140.3	
WIDTH	Available dimensions [mm]																
33	■	■	■	■	■	■	■										
43	■	■	■	■	■	■	■	■									
53	■	■	■	■	■	■	■	■	■								
63	■	■	■	■	■	■	■	■	■	■							
73	■	■	■	■	■	■	■	■	■	■	■						
83	■	■	■	■	■	■	■	■	■	■	■	■					
93	■	■	■	■	■	■	■	■	■	■	■	■	■				
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

**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.

**Tolerances****Standard values**

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

C	Cr	Mo	V
1.0	8.0	1.8	0.15
1.0	8.0	2.7	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2990mod-5

**BS 1.2990 mod. – all at a glance!**

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

via smartphone/tablet:



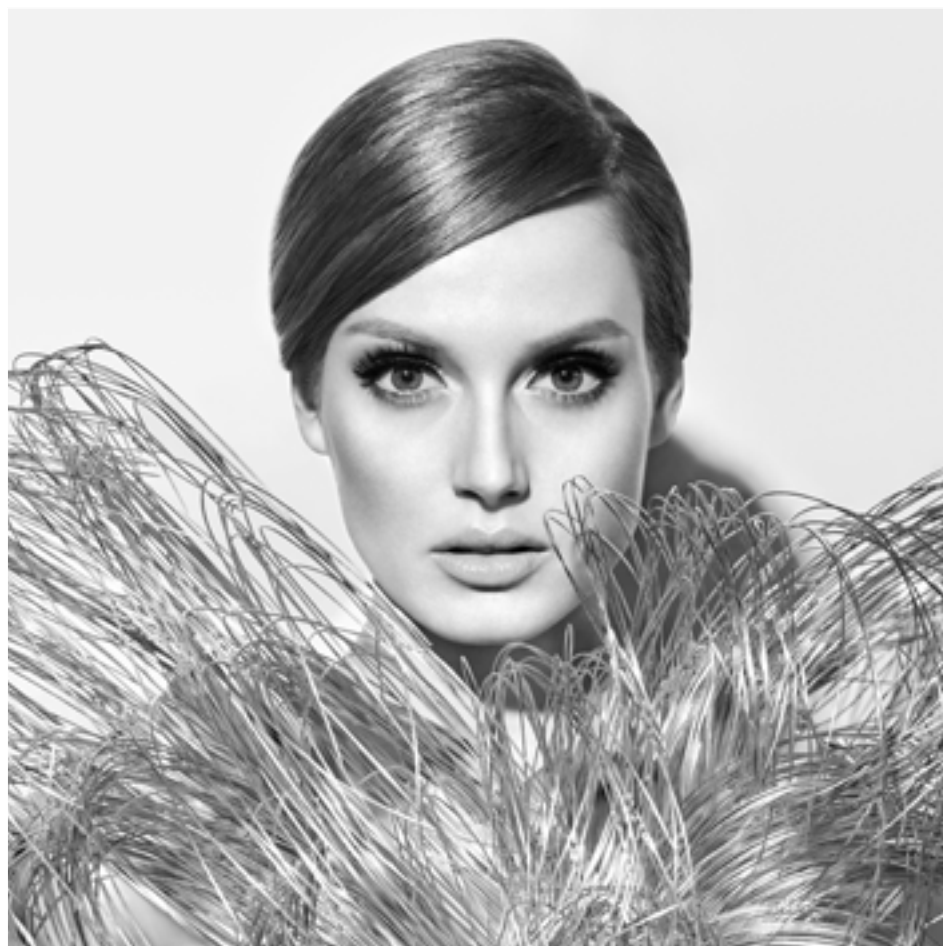
PREMIUM 1.2990 mod. – BS 1.2990 mod. – AISI / SAE 1.2990 mod. (~X100CrMoV8-2)

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		•

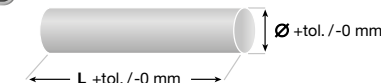
Larger diameters. up to 450.5 mm and different lengths (e.g. round blanks) available on request!

**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.

**Tolerances****Standard values**

Delivery condition: maximum 250 HB

Chemical composition: (+additives):

C	Cr	Mo	V
1.0	8.0	1.8	0.15
1.0	8.0	2.7	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**
www.premium-steel.co.uk/2990mod-7
**BS 1.2990 mod. – all at a glance!**

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

via smartphone/tablet:

NAVIGATION/
STEEL GRADES1.2990 mod.
1.2990 mod.1.2842
BO 2/BO 11.2826
1.28261.2767
1.27671.2767 ESU
1.2767 ESR1.2738
1.27381.2714
1.27141.2714+QT
1.2714+QT1.2709 ESU
1.2709 ESR1.2550
BS 11.2436
BD 61.2379
BD 21.2367
1.23671.2365
BH 101.2363
BA 21.2361
1.23611.2360
~ Chipper1.2358
1.23581.2344
BH 131.2344 ESU
BH 13 ESR

NAVIGATION/
STEEL GRADES**PREMIUM 1.2842/1.2510 – BS BO 2/BO 1 – AISI / SAE O2/O1** (90MnCrV8/100MnCrW4)

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

Length: 500 mm

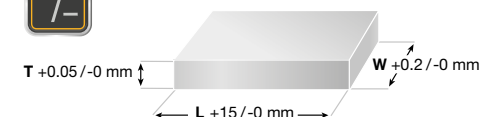
	THICKNESS [mm]																			
	1.0	1.5	2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	15.0	16.0	18.0	20.0	25.0	30.0	40.0	50.0	60.0	
WIDTH	Available dimensions [mm]																			
4.0					■															
5.0						■														
6.0							■													
8.0								■												
10.0	■	■	■	■	■	■	■	■	■											
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	■	■	■	■	■	■	■	■	■	■	■			■	■	■	■	■		

**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 BS BO 1. 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 (BS BO 2)**

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	V
0.85	0.1	1.8	0	0	0.2	0.05
0.95	0.4	2.2	0.03	0.03	0.5	0.2

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BO2-1

**BS BO 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BO2

via smartphone / tablet:



PREMIUM 1.2842/1.2510 – BS BO 2/BO 1 – AISI / SAE O2/O1 (90MnCrV8/100MnCrW4)

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

Length: 1.000 mm

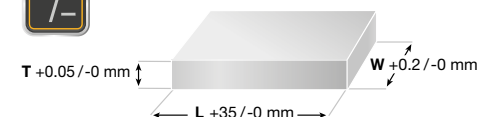
	THICKNESS [mm]																
	2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	15.0	16.0	18.0	20.0	25.0	30.0	40.0	50.0	60.0
WIDTH	Available dimensions [mm]																
4.0			■														
5.0				■													
6.0					■												
8.0						■											
10.0	■	■	■	■	■	■	■										
12.0	■	■	■	■	■	■	■	■									
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	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	

**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 BS BO 1. 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 (BS BO 2)**

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	V
0.85	0.1	1.8	0	0	0.2	0.05
0.95	0.4	2.2	0.03	0.03	0.5	0.2

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BO2-2

**BS BO 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BO2

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

**1.2842
BO 2/BO 1**

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

PREMIUM 1.2842/1.2510 – BS BO 2/BO 1 – AISI / SAE O2/O1 (90MnCrV8/100MnCrW4)

Precision flat steel with machining allowance [PFS/BA]

Length: 500 mm

	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	
WIDTH	Available dimensions [mm]																					
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 *						■	■	■	■			■	■	■		■						

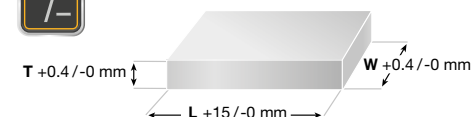
* Width and length sawn/black with +tol./-0 mm

**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 BS BO 1. 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 (BS BO 2)**

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	V
0.85	0.1	1.8	0	0	0.2	0.05
0.95	0.4	2.2	0.03	0.03	0.5	0.2

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BO2-3

**BS BO 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BO2

via smartphone/tablet:



PREMIUM 1.2842/1.2510 – BS BO 2/BO 1 – AISI / SAE O2/O1 (90MnCrV8/100MnCrW4)

Precision flat steel with machining allowance [PFS/BA]

Length: 1.000 mm

	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
WIDTH	Available dimensions [mm]																				
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 *					■	■	■	■	■			■	■	■		■					

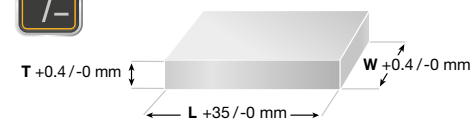
* Width and length sawn/black with +tol./-0 mm

**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 BS BO 1. 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 (BS BO 2)**

Delivery condition: maximum 229 HB

Chemical composition:

C	Si	Mn	P	S	Cr	V
0.85	0.1	1.8	0	0	0.2	0.05
0.95	0.4	2.2	0.03	0.03	0.5	0.2

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**
www.premium-steel.co.uk/BO2-4
**BS BO 2 – all at a glance!**

Datasheets, online shop, ABRAMS STEEL GUIDE® for alternatives: www.premium-steel.co.uk/BO2

via smartphone / tablet:

NAVIGATION/
STEEL GRADES1.2990 mod.
1.2990 mod.**1.2842
BO 2/BO 1**1.2826
1.28261.2767
1.27671.2767 ESU
1.2767 ESR1.2738
1.27381.2714
1.27141.2714+QT
1.2714+QT1.2709 ESU
1.2709 ESR1.2550
BS 11.2436
BD 61.2379
BD 21.2367
1.23671.2365
BH 101.2363
BA 21.2361
1.23611.2360
~ Chipper1.2358
1.23581.2344
BH 131.2344 ESU
BH 13 ESR

NAVIGATION/
STEEL GRADES**PREMIUM 1.2842/1.2510 – BS BO 2/BO 1 – AISI / SAE O2/O1** (90MnCrV8/100MnCrW4)**Hart-Präz® 250 [Hart]**

Length: 250 mm

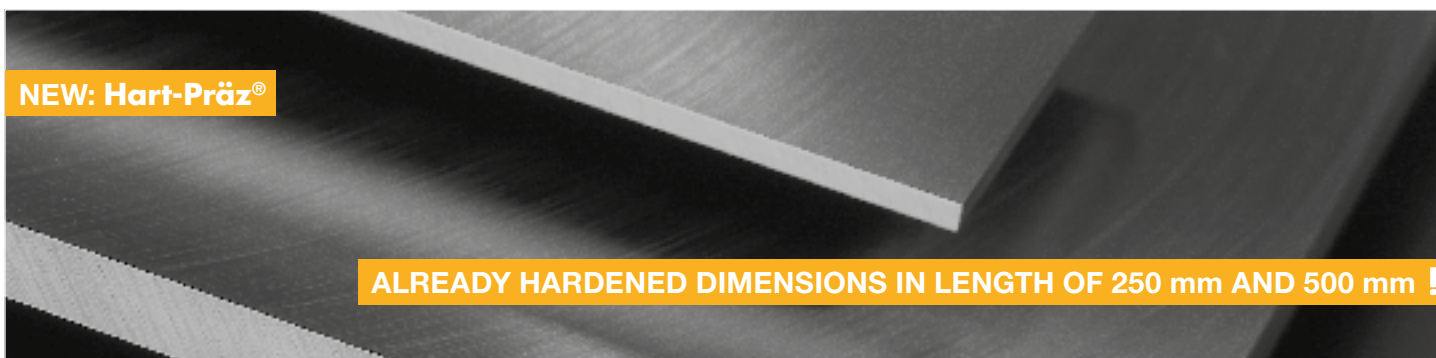
	THICKNESS [mm]													
	2.2	2.7	3.2	3.7	4.2	4.7	5.2	6.2	7.2	8.2	9.2	10.2	12.2	14.2
WIDTH	Available dimensions [mm]													
250	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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 [mm]													
250	■	■	■	■	■	■	■	■	■	■	■	■	■	■

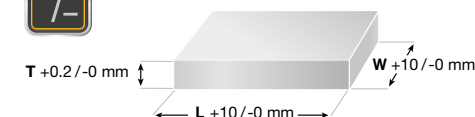
Hardened dimensions are delivered with approx. 57 HRC. at least 2x tempered.

**NEW: Hart-Präz®****ALREADY HARDENED DIMENSIONS IN LENGTH OF 250 mm AND 500 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 BS BO 1. 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 (BS BO 2)**

Delivery condition: approx. 57 HRC

Chemical composition:

C	Si	Mn	P	S	Cr	V
0.85	0.1	1.8	0	0	0.2	0.05
0.95	0.4	2.2	0.03	0.03	0.5	0.2

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**
www.premium-steel.co.uk/BO2-11-H
**BS BO 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BO2

via smartphone/tablet:



PREMIUM 1.2842/1.2510 – BS BO 2/BO 1 – 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		•

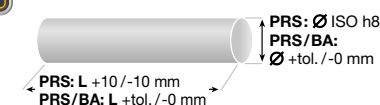
Larger diameters. up to 500.5 mm. and different lengths (e.g. round blanks) available on request!

**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 BS BO 1. 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 (BS BO 2)**

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	V
0.85	0.1	1.8	0	0	0.2	0.05
0.95	0.4	2.2	0.03	0.03	0.5	0.2

**If you need customised dimensions -**

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

**Contact us**

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

www.premium-steel.co.uk/BO2-6
[PRS/BA]
www.premium-steel.co.uk/BO2-7

**BS BO 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BO2

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR



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

ABRAMS!
PREMIUM STEEL

PREMIUM 1.2826 – BS 1.2826 – AISI / SAE 1.2826 (60MnSiCr4)

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

	LENGTH [mm]
	1.000
Ø [mm]	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

	LENGTH [mm]
	1.000
Ø [mm]	Available dimensions [•]
62.0	•
66.0	•
70.0	•
72.0	•
75.0	•
80.0	•
85.0	•
90.0	•
92.0	•
95.0	•
100.0	•

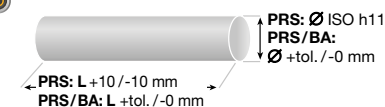
Larger diameters. up to 400.0 mm. and different lengths (e.g. round blanks) available on request!

**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	0.8	0.8	0	0	0.2
0.65	1.0	1.2	0.03	0.03	0.4

**If you need customised dimensions -**

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

**Contact us**

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

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

**BS 1.2826 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2826

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

NAVIGATION/
STEEL GRADES**PREMIUM 1.2767 – BS 1.2767 – AISI / SAE 6F7** (45NiCrMo16)

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	90.3	100.3
WIDTH	Available dimensions [mm]																			
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 *					■	■	■		■	■	■		■	■						

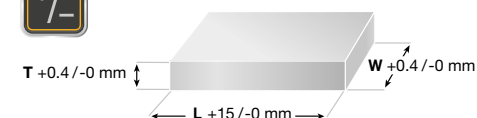
* Width and length sawn/black with +tol./-0 mm

**Technical properties**

Steel grade with focus on cold work. high toughness (nickel content), good through-hardness (even for large cross-sections), as well as high impact strength and pressure resistance. Polishable, etchable and erodible. For very special purity and homogeneity we recommend BS 1.2767. 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	0.1	0.2	0	0	1.2	0.15	3.8
0.5	0.4	0.5	0.03	0.03	1.5	0.35	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2767-3

**BS 1.2767 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2767

via smartphone/tablet:



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

Precision flat steel with machining allowance [PFS/BA]

Length: 1.000 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	90.3	100.3
WIDTH	Available dimensions [mm]																			
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 *					■	■	■		■	■	■		■	■						

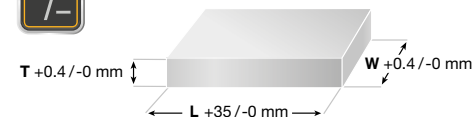
* Width and length sawn/black with +tol./-0 mm

**Technical properties**

Steel grade with focus on cold work, high toughness (nickel content), good through-hardening (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 BS 1.2767. 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	0.1	0.2	0	0	1.2	0.15	3.8
0.5	0.4	0.5	0.03	0.03	1.5	0.35	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2767-4

**BS 1.2767 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2767

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

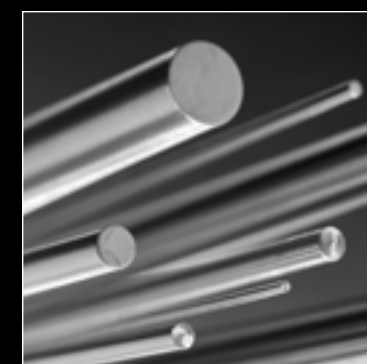
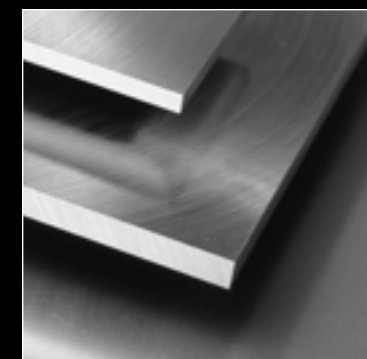
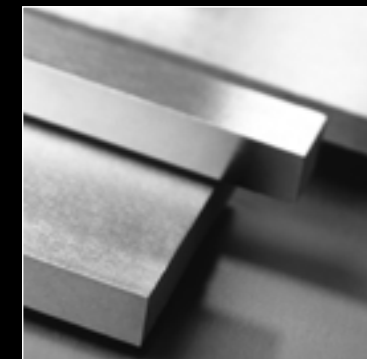
1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR



70 STEEL GRADES IN 30.937 STANDARD DIMENSIONS AVAILABLE FROM STOCK!

ABRAMS!
PREMIUM STEEL®

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

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

	LENGTH [mm]
	1.000
Ø [mm]	Available dimensions [•]
10.0	•
12.0	•
15.0	•
20.0	•
25.0	•

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

	LENGTH [mm]	
	500	1.000
Ø [mm]	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		•

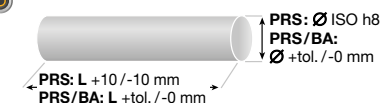
Larger diameters. up to 500.5 mm. and different lengths (e.g. round blanks) available on request!

**Technical properties**

Steel grade with focus on cold work, high toughness (nickel content), good through-hardness (even for large cross-sections), as well as high impact strength and pressure resistance. Polishable, etchable and erodible. For very special purity and homogeneity we recommend BS 1.2767. 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	0.1	0.2	0	0	1.2	0.15	3.8
0.5	0.4	0.5	0.03	0.03	1.5	0.35	4.3

**If you need customised dimensions -**

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

**Contact us**

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

www.premium-steel.co.uk/2767-6
[PRS/BA]

www.premium-steel.co.uk/2767-7

**BS 1.2767 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2767

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

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

€co-Präz® 300 [€co]

Length: 300 mm

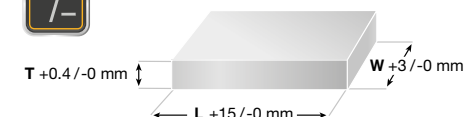
	THICKNESS [mm]															
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3	140.3
WIDTH	Available dimensions [mm]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

**Technical properties**

Steel grade with focus on cold work, high toughness (nickel content), good through-hardness (even for large crosssections), as well as high impact strength and pressure resistance. Polishable, etchable and erodable. For very special purity and homogeneousness we recommend BS 1.2767ESR. 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	0.1	0.2	0	0	1.2	0.15	3.8
0.5	0.4	0.5	0.03	0.03	1.5	0.35	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2767ESR-3-5

**BS 1.2767 ESR – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2767ESR

via smartphone/tablet:



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

€co-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■



Technical properties

Steel grade with focus on cold work, high toughness (nickel content), good through-hardening (even for large crosssections), as well as high impact strength and pressure resistance. Polishable, etchable and erodible. For very special purity and homogeneity we recommend BS 1.2767ESR. Working hardness: 50-54 HRC.

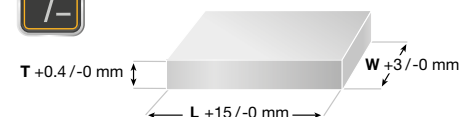


Applications

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	0.1	0.2	0	0	1.2	0.15	3.8
0.5	0.4	0.5	0.03	0.03	1.5	0.35	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk



Direct access to our online shop

www.premium-steel.co.uk/2767ESR-5-5



BS 1.2767 ESR – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2767ESR

via smartphone/tablet:



NAVIGATION/ STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

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

€co-Präz® 500 [€co]

Length: 500 mm

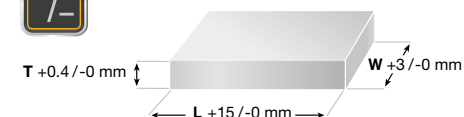
	THICKNESS [mm]																	
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3	140.3	150.3	
WIDTH	Available dimensions [mm]																	
33	■	■	■	■	■	■	■											
43	■	■	■	■	■	■	■	■										
53	■	■	■	■	■	■	■	■	■									
63	■	■	■	■	■	■	■	■	■	■								
73	■	■	■	■	■	■	■	■	■	■	■							
83	■	■	■	■	■	■	■	■	■	■	■	■						
93	■	■	■	■	■	■	■	■	■	■	■	■	■					
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

**Technical properties**

Steel grade with focus on plastic mould making; nickel additives for a better through-hardening (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.

**Tolerances****Standard values**

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0.35	0.2	1.3	0	0	1.8	0.15	0.9
0.45	0.4	1.6	0.03	0.03	2.1	0.25	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2738-5

**BS 1.2738 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2738

via smartphone/tablet:



PREMIUM 1.2738 – BS 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		•

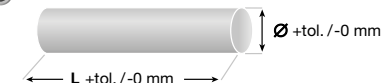
Larger diameters. up to 655.5 mm. and different lengths (e.g. round blanks) available on request!

**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.

**Tolerances****Standard values**

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0.35	0.2	1.3	0	0	1.8	0.15	0.9
0.45	0.4	1.6	0.03	0.03	2.1	0.25	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2738-7

**BS 1.2738 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2738

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

PREMIUM 1.2714 – BS 1.2714 – AISI / SAE L6 (55NiCrMoV7)

€co-Präz® 500 [€co]

Length: 500 mm

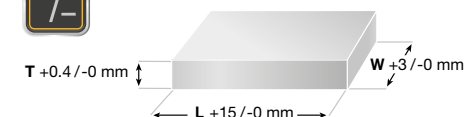
	THICKNESS [mm]																	
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3	140.3	150.3	
WIDTH	Available dimensions [mm]																	
33	■	■	■	■	■	■	■											
43	■	■	■	■	■	■	■	■										
53	■	■	■	■	■	■	■	■	■									
63	■	■	■	■	■	■	■	■	■	■								
73	■	■	■	■	■	■	■	■	■	■	■							
83	■	■	■	■	■	■	■	■	■	■	■	■						
93	■	■	■	■	■	■	■	■	■	■	■	■	■					
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

**Technical properties**

Hot work steel that can be used for a wide range of applications. With good through-hardening, 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.

**Tolerances****Standard values**

Delivery condition: maximum 250 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V
0.5	0.1	0.6	0	0	0.8	0.35	1.5	0.05
0.6	0.4	0.9	0.03	0.03	1.2	0.55	1.8	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2714-5

**BS 1.2714 – all at a glance!**

Datasheets, online shop, ABRAMS STEEL GUIDE® for alternatives: www.premium-steel.co.uk/1.2714

via smartphone/tablet:



PREMIUM 1.2714 – BS 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		•



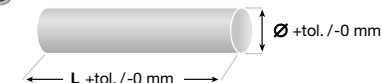
Larger diameters. up to 905.5 mm. and different lengths (e.g. round blanks) available on request!

**Technical properties**

Hot work steel that can be used for a wide range of applications. With good through-hardening, 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.

**Tolerances****Standard values**

Delivery condition: maximum 250 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V
0.5	0.1	0.6	0	0	0.8	0.35	1.5	0.05
0.6	0.4	0.9	0.03	0.03	1.2	0.55	1.8	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2714-7

**BS 1.2714 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2714

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

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

€co-Präz® 500 [€co]

Length: 500 mm

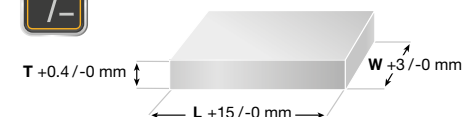
	THICKNESS [mm]																	
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3	140.3	150.3	
WIDTH	Available dimensions [mm]																	
33	■	■	■	■	■	■	■											
43	■	■	■	■	■	■	■	■										
53	■	■	■	■	■	■	■	■	■									
63	■	■	■	■	■	■	■	■	■	■								
73	■	■	■	■	■	■	■	■	■	■	■							
83	■	■	■	■	■	■	■	■	■	■	■	■						
93	■	■	■	■	■	■	■	■	■	■	■	■	■					
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

**Technical properties**

Hot work steel that can be used for a wide range of applications. With good through-hardening, 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.

**Tolerances****Standard values**

Delivery condition: maximum 400 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V
0.5	0.1	0.6	0	0	0.8	0.35	1.5	0.05
0.6	0.4	0.9	0.03	0.03	1.2	0.55	1.8	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2714QT-5

**BS 1.2714+QT – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2714QT

via smartphone/tablet:



PREMIUM 1.2714+QT – BS 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		•

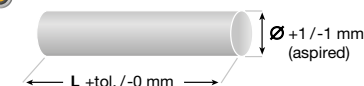
Larger diameters. up to 705 mm. and different lengths (e.g. round blanks) available on request!

**Technical properties**

Hot work steel that can be used for a wide range of applications. With good through-hardening, 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.

**Tolerances****Standard values**

Delivery condition: maximum 400 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V
0.5	0.1	0.6	0	0	0.8	0.35	1.5	0.05
0.6	0.4	0.9	0.03	0.03	1.2	0.55	1.8	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2714QT-8

**BS 1.2714+QT – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2714QT

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

SUPERIORITY !



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

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

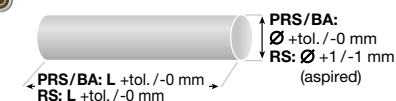
Ø [mm]	LENGTH [mm]	
	500	1,000
Available dimensions [•]		
15.5	•	•
20.5	•	•
25.5	•	•
30.5	•	•
40.5	•	•
45.5	•	•
50.5	•	•
60.5	•	•
70.5		•
80.5		•
100.5		•

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	0	0	0	0	4.5	17.0	0.8	8.5
0.03	0.1	0.15	0.01	0.01	0.25	5.2	19.0	1.2	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**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

[PRS/BA]

www.premium-steel.co.uk/2709ESR-7

[RS]

www.premium-steel.co.uk/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.

**BS 1.2709 ESR – all at a glance!**

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

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

PREMIUM 1.2550 – BS BS 1 – AISI / SAE S1 (60WCrV8)

€co-Präz® 500 [€co]

Length: 500 mm

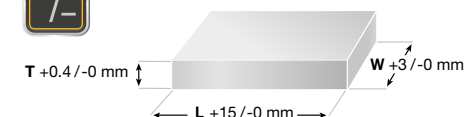
	THICKNESS [mm]																
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3	140.3	
WIDTH	Available dimensions [mm]																
33	■	■	■	■	■	■	■										
43	■	■	■	■	■	■	■	■									
53	■	■	■	■	■	■	■	■	■								
63	■	■	■	■	■	■	■	■	■	■							
73	■	■	■	■	■	■	■	■	■	■	■						
83	■	■	■	■	■	■	■	■	■	■	■	■					
93	■	■	■	■	■	■	■	■	■	■	■	■	■				
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

**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.

**Tolerances****Standard values**

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	V	W
0.55	0.7	0.15	0	0	0.9	0.1	1.7
0.65	1.0	0.45	0.03	0.03	1.2	0.2	2.2

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BS1-5

**BS BS 1 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BS1

via smartphone/tablet:



PREMIUM 1.2550 – BS BS 1 – 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		•

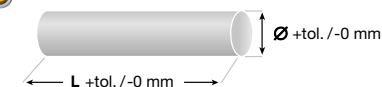
Larger diameters. up to 180.5 mm. and different lengths (e.g. round blanks) available on request!

**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.

**Tolerances****Standard values**

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	V	W
0.55	0.7	0.15	0	0	0.9	0.1	1.7
0.65	1.0	0.45	0.03	0.03	1.2	0.2	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BS1-7

**BS BS 1 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BS1

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

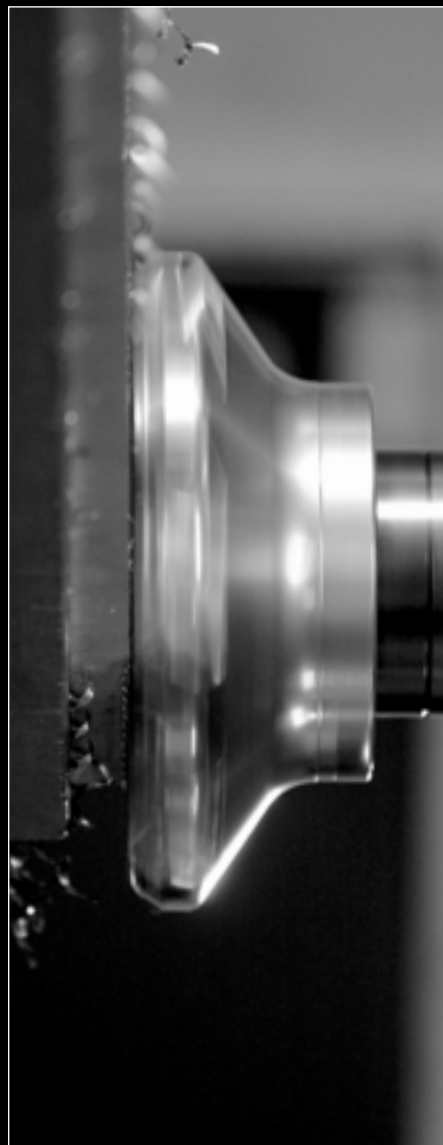
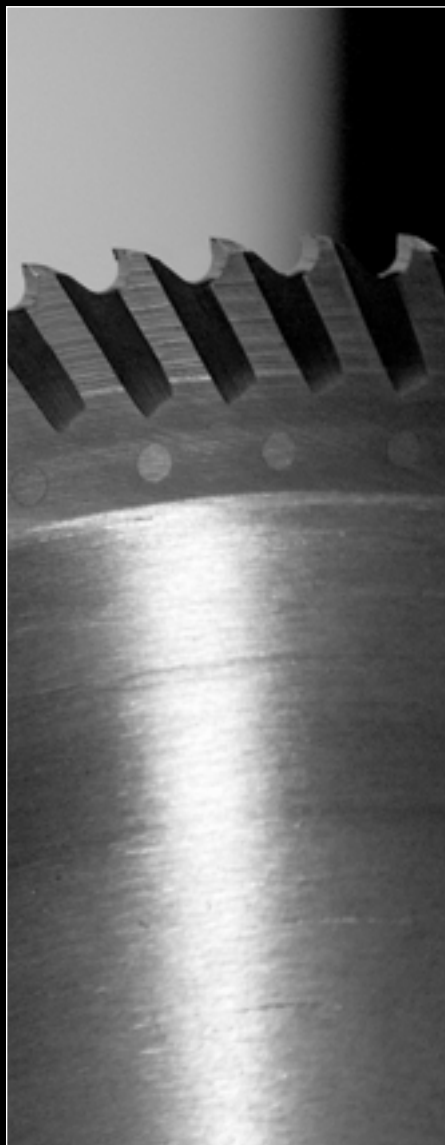
1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR



ON REQUEST ...

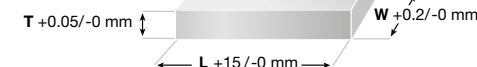
... SAWN – MILLED – GROUND !

PREMIUM 1.2436 – BS BD 6 – 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 [mm]										
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	0.1	0.3	0	0	11.0	0.6
2.3	0.4	0.6	0.03	0.03	13.0	0.8

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/BD6-1**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 BS BD 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.

**BS BD 6 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD6


via smartphone/tablet:

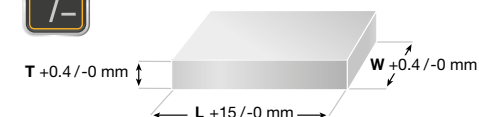
NAVIGATION/
STEEL GRADES1.2990 mod.
1.2990 mod.1.2842
BO 2/BO 11.2826
1.28261.2767
1.27671.2767 ESU
1.2767 ESR1.2738
1.27381.2714
1.27141.2714+QT
1.2714+QT1.2709 ESU
1.2709 ESR1.2550
BS 1**1.2436**
BD 61.2379
BD 21.2367
1.23671.2365
BH 101.2363
BA 21.2361
1.23611.2360
~ Chipper1.2358
1.23581.2344
BH 131.2344 ESU
BH 13 ESR

NAVIGATION/
STEEL GRADES**PREMIUM 1.2436 – BS BD 6 – AISI / SAE D6** (X210CrW12)

Precision flat steel with machining allowance [PFS/BA]

Length: 500 mm

	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	
WIDTH	Available dimensions [mm]														
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	0.1	0.3	0	0	11.0	0.6
2.3	0.4	0.6	0.03	0.03	13.0	0.8

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BD6-3

**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 BS BD 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.

**BS BD 6 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD6


via smartphone / tablet:



PREMIUM 1.2436 – BS BD 6 – AISI / SAE D6 (X210CrW12)

Precision flat steel with machining allowance [PFS/BA]

Length: 1,000 mm

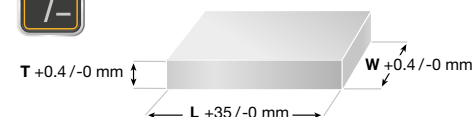
	THICKNESS [mm]																
	2.2	3.2	4.2	5.2	6.2	8.2	10.3	12.3	15.3	16.3	20.3	25.3	30.3	32.3	40.3	50.3	
WIDTH	Available dimensions [mm]																
8.2																	
10.3	■	■	■	■	■	■	■										
12.3								■									
15.3	■	■	■	■	■	■	■	■	■								
16.3											■						
20.3	■	■	■	■	■	■	■	■	■		■						
25.3	■	■	■	■	■	■	■	■	■	■	■	■					
30.3	■	■	■	■	■	■	■	■	■	■	■	■	■				
32.3	■	■	■	■	■	■	■	■	■	■	■	■		■			
40.3	■	■	■	■	■	■	■	■	■	■	■	■	■		■		
50.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
60.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
63.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
80.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
100.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
125.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
150.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
160.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
175.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
200.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
250.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
300.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
315.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

**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 BS BD 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	0.1	0.3	0	0	11.0	0.6
2.3	0.4	0.6	0.03	0.03	13.0	0.8

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BD6-4

**BS BD 6 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD6

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

PREMIUM 1.2436 – BS BD 6 – AISI / SAE D6 (X210CrW12)**Hart-Präz® 250 [Hart]**

Length: 250 mm

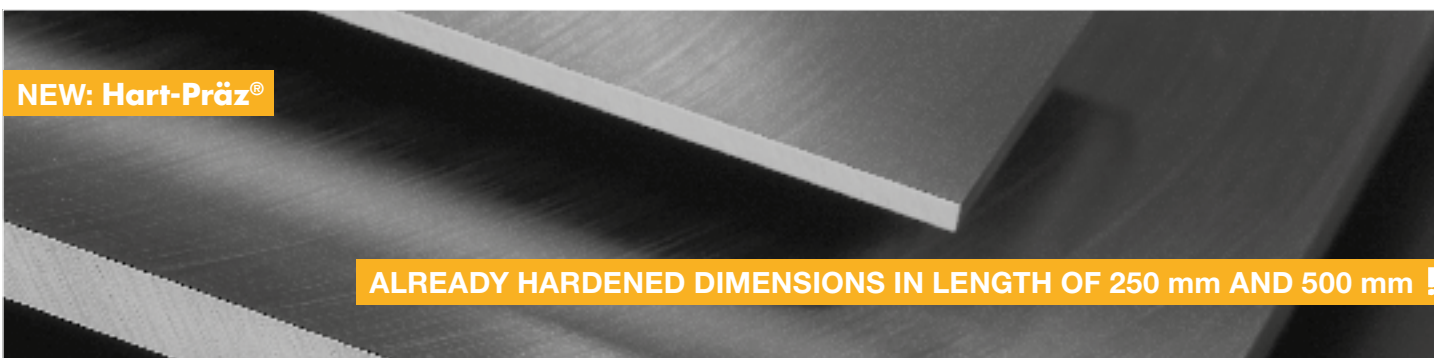
	THICKNESS [mm]												
	2.2	2.7	3.2	3.7	4.2	4.7	5.2	6.2	7.2	8.2	9.2	10.2	12.2
WIDTH	Available dimensions [mm]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

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 [mm]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

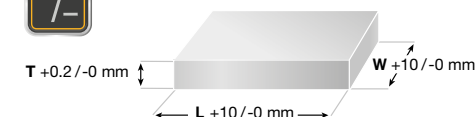
Hardened dimensions are delivered with approx. 59 HRC. at least 2x tempered.

**NEW: Hart-Präz®****ALREADY HARDENED DIMENSIONS IN LENGTH OF 250 mm AND 500 mm !****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 BS BD 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	0.1	0.3	0	0	11.0	0.6
2.3	0.4	0.6	0.03	0.03	13.0	0.8

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**
www.premium-steel.co.uk/BD6-11-H
**BS BD 6 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD6

via smartphone/tablet:



PREMIUM 1.2436 – BS BD 6 – AISI / SAE D6 (X210CrW12)

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		•

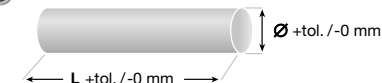
Larger diameters. up to 400.5 mm. and different lengths (e.g. round blanks) available on request!

**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 BS BD 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	0.1	0.3	0	0	11.0	0.6
2.3	0.4	0.6	0.03	0.03	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BD6-7

**BS BD 6 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD6

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

PREMIUM 1.2379 – BS BD 2 – AISI / SAE D2 (X153CrMoV12)

Precision flat steel with machining allowance [PFS/BA]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]																			
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

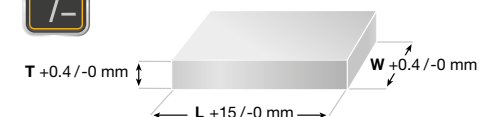
**Technical properties**

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	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**
www.premium-steel.co.uk/BD2-3
**BS BD 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD2

via smartphone / tablet:



PREMIUM 1.2379 – BS BD 2 – AISI / SAE D2 (X153CrMoV12)

Precision flat steel with machining allowance [PFS/BA]

Length: 1,000 mm

	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
WIDTH	Available dimensions [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	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
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

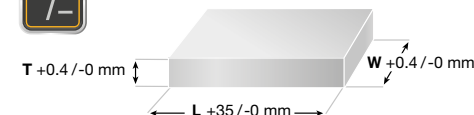
**Technical properties**

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	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BD2-4

**AISI / SAE D2 – all at a glance!**

Datasheets, online shop, ABRAMS STEEL GUIDE® for alternatives: www.premium-steel.co.uk/BD2

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

NAVIGATION/
STEEL GRADES1.2990 mod.
1.2990 mod.1.2842
BO 2/BO 11.2826
1.28261.2767
1.27671.2767 ESU
1.2767 ESR1.2738
1.27381.2714
1.27141.2714+QT
1.2714+QT1.2709 ESU
1.2709 ESR1.2550
BS 11.2436
BD 61.2379
BD 21.2367
1.23671.2365
BH 101.2363
BA 21.2361
1.23611.2360
~ Chipper1.2358
1.23581.2344
BH 131.2344 ESU
BH 13 ESR**PREMIUM 1.2379 – BS BD 2 – AISI / SAE D2** (X153CrMoV12)Precision flat steel with machining allowance [PFS/BA]
Length: 200 mm

	THICKNESS [mm]							
	20.3	25.3	30.3	40.3	50.3	60.3	80.3	100.3
WIDTH	Available dimensions [mm]							
100.3	■	■	■	■	■	■	■	■
150.3	■	■	■	■	■	■	■	■
200.3	■	■	■	■	■	■	■	■

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

	THICKNESS [mm]							
	20.3	25.3	30.3	40.3	50.3	60.3	80.3	100.3
WIDTH	Available dimensions [mm]							
100.3	■	■	■	■	■	■	■	■
150.3	■	■	■	■	■	■	■	■
200.3	■	■	■	■	■	■	■	■
250.3	■	■	■	■	■	■	■	■
300.3	■	■	■	■	■	■	■	■

SHORTER LENGTH: 200 mm. 300 mm. 400 mm and 600 mm !Precision flat steel with machining allowance [PFS/BA]
Length: 400 mm

	THICKNESS [mm]							
	20.3	25.3	30.3	40.3	50.3	60.3	80.3	100.3
WIDTH	Available dimensions [mm]							
100.3	■	■	■	■	■	■	■	■
150.3	■	■	■	■	■	■	■	■
200.3	■	■	■	■	■	■	■	■
250.3	■	■	■	■	■	■	■	■
300.3	■	■	■	■	■	■	■	■
400.3	■	■	■	■	■	■	■	■

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

	THICKNESS [mm]							
	20.3	25.3	30.3	40.3	50.3	60.3	80.3	100.3
WIDTH	Available dimensions [mm]							
100.3	■	■	■	■	■	■	■	■
150.3	■	■	■	■	■	■	■	■
200.3	■	■	■	■	■	■	■	■
250.3	■	■	■	■	■	■	■	■
300.3	■	■	■	■	■	■	■	■
400.3	■	■	■	■	■	■	■	■

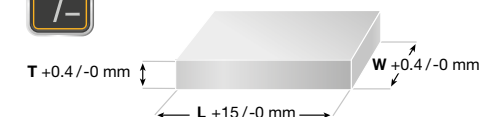
**Technical properties**

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	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/D2-200

www.premium-steel.co.uk/D2-300

www.premium-steel.co.uk/D2-400

www.premium-steel.co.uk/D2-600

**BS BD 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD2

via smartphone / tablet:



PREMIUM 1.2379 – BS BD 2 – AISI / SAE D2 (X153CrMoV12)

Eco-Präz® 500 [€co]

Length: 500 mm

	THICKNESS [mm]										
	10.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	
WIDTH	Available dimensions [mm]										
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	■	■	■	■	■	■	■	■	■	■	■

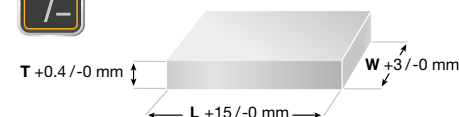
**Technical properties**

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	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BD2-5

**BS BD 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD2

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

NAVIGATION/
STEEL GRADES**PREMIUM 1.2379 – BS BD 2 – AISI / SAE D2** (X153CrMoV12)**Hart-Präz® 250 [Hart]**

Length: 250 mm

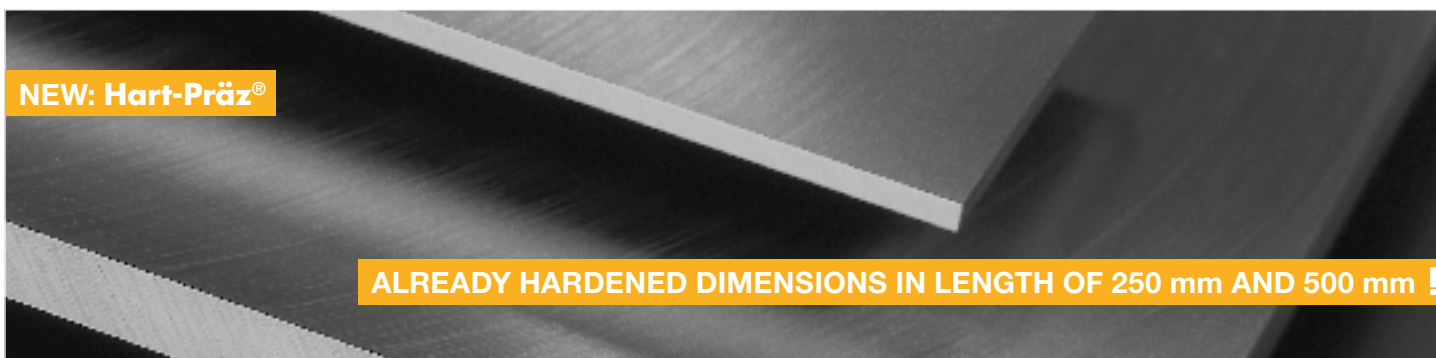
	THICKNESS [mm]													
	2.2	2.7	3.2	3.7	4.2	4.7	5.2	6.2	7.2	8.2	9.2	10.2	12.2	14.2
WIDTH	Available dimensions [mm]													
250	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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 [mm]													
250	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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

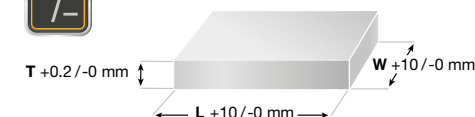
**NEW: Hart-Präz®****ALREADY HARDENED DIMENSIONS IN LENGTH OF 250 mm AND 500 mm !****Technical properties**

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: approx. 57 HRC

Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
1.45	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/BD2-11-H**BS BD 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD2

via smartphone/tablet:



PREMIUM 1.2379 – BS BD 2 – 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		•

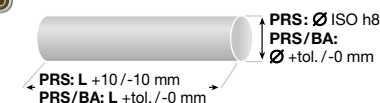
Larger diameters. up to 755.5 mm. and different lengths (e.g. round blanks) available on request!

**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	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

www.premium-steel.co.uk/BD2-6
[PRS/BA]

www.premium-steel.co.uk/BD2-7

**BS BD 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD2

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper


1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

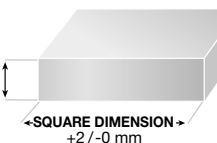
PREMIUM 1.2379 – BS BD 2 – AISI / SAE D2 (X153CrMoV12)Erosion block/EDM block/annealed [EB]

Specification: all-sides machined (milled/ground)/grain structure is vertically directed in relation to base surface

		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
	SQUARE	Available dimensions [mm]												
1.2826	80.3	■	■	■	■	■	■	■	■	■	■	■	■	■
1.2826	100.3	■	■	■	■	■	■	■	■	■	■	■	■	■
1.2767	120.3	■	■	■	■	■	■	■	■	■	■	■	■	■
1.2767	150.3	■	■	■	■	■	■	■	■	■	■	■	■	■
1.2767 ESU	200.3	■	■	■	■	■	■	■	■	■	■	■	■	■
1.2767 ESR	250.3	■	■	■	■	■	■	■	■	■	■	■	■	■
1.2738	300.3	■	■	■	■	■	■	■	■	■	■	■	■	■
1.2738														

**Tolerances**

T +0.25 / -0 mm

**Standard values**

Delivery condition: maximum 255 HB

Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
1.45	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	1.0

**If you need customised dimensions -**

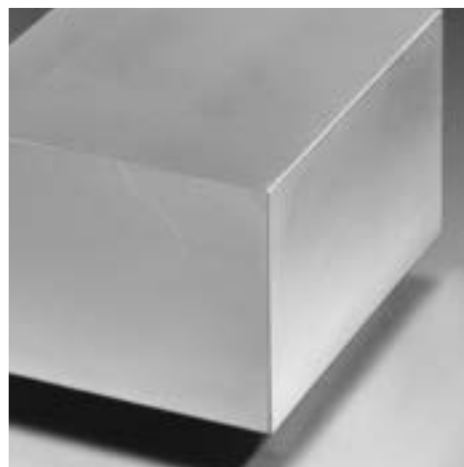
Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/BD2-9-G**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.

**BS BD 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD2


via smartphone/tablet:



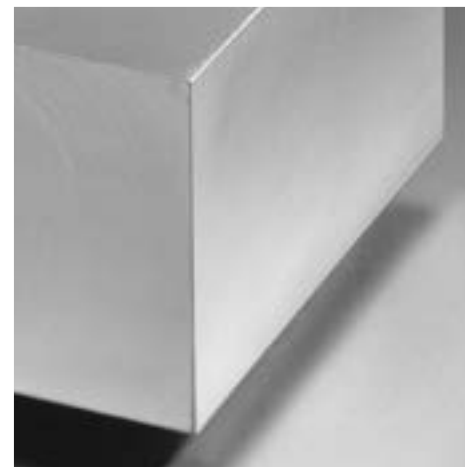
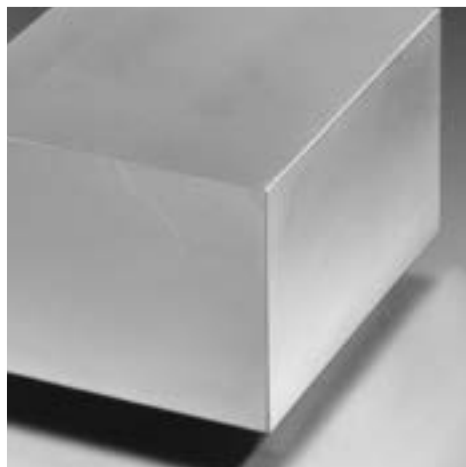
PREMIUM 1.2379 – BS BD 2 – AISI / SAE D2 (X153CrMoV12)

Erosion block/EDM block/hardened [EB]

Specification: all-sides machined (milled/ground)/grain structure is vertically directed in relation to base surface

	THICKNESS [mm]													
	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	
SQUARE	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 nitrided without any reduction in hardness even for a cold work steel.

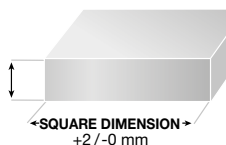
Working hardness: 57-62 HRC.

**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**

T +0.25 / -0 mm

**Standard values**

Delivery condition: approx. 61 HRC

Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
1.45	0.1	0.2	0	0	11.0	0.7	0.7
1.6	0.6	0.6	0.03	0.03	13.0	1.0	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BD2-9-H

**BS BD 2 – all at a glance!**

Datasheets, online shop, ABRAMS STEEL GUIDE® for alternatives: www.premium-steel.co.uk/BD2

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

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

€co-Präz® 500 [€co]

Length: 500 mm

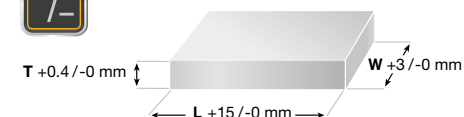
	THICKNESS [mm]																
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3	140.3	
WIDTH	Available dimensions [mm]																
33	■	■	■	■	■	■	■										
43	■	■	■	■	■	■	■	■									
53	■	■	■	■	■	■	■	■	■								
63	■	■	■	■	■	■	■	■	■	■							
73	■	■	■	■	■	■	■	■	■	■	■						
83	■	■	■	■	■	■	■	■	■	■	■	■					
93	■	■	■	■	■	■	■	■	■	■	■	■	■				
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

**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.

**Tolerances****Standard values**

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0.35	0.3	0.3	0	0	4.8	2.7	0.4
0.4	0.5	0.5	0.03	0.02	5.2	3.2	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2367-5

**BS 1.2367 – all at a glance!**

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

via smartphone/tablet:



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

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		•
90.5		•
95.5		•
100.5		•

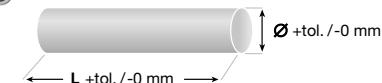
Larger diameters. up to 450.5 mm. and different lengths (e.g. round blanks) available on request!

**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.

**Tolerances****Standard values**

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0.35	0.3	0.3	0	0	4.8	2.7	0.4
0.4	0.5	0.5	0.03	0.02	5.2	3.2	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2367-7

**BS 1.2367 – all at a glance!**

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

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

PREMIUM 1.2365 – BS BH 10 – AISI / SAE H10 (32CrMoV12-28)

€co-Präz® 500 [€co]

Length: 500 mm

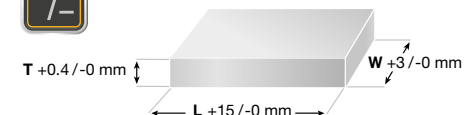
	THICKNESS [mm]															
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3	140.3
WIDTH	Available dimensions [mm]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

**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.

**Tolerances****Standard values**

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0.28	0.1	0.15	0	0	2.7	2.5	0.4
0.35	0.4	0.45	0.03	0.02	3.2	3.0	0.7

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BH10-5

**BS BH 10 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BH10

via smartphone/tablet:



PREMIUM 1.2365 – BS BH 10 – 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		•

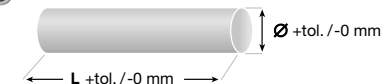
Larger diameters. up to 350.5 mm. and different lengths (e.g. round blanks) available on request!

**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.

**Tolerances****Standard values**

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0.28	0.1	0.15	0	0	2.7	2.5	0.4
0.35	0.4	0.45	0.03	0.02	3.2	3.0	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**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BH10-7

**BS BH 10 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BH10

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

PREMIUM 1.2363 – BS BA 2 – AISI / SAE A2 (X100CrMoV5-1)

Precision flat steel with machining allowance [PFS/BA]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]																	
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									■		■	■	■					

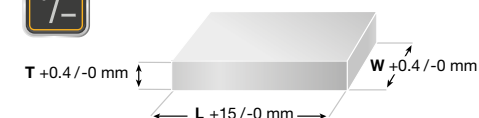
**Technical properties**

Air hardening cold work steel, good machinability, high wear resistance and improved toughness (reduced occurrence of hard carbides with about 5% chromium compared to 12% chromium in ledeburites BS BD 2, BS BD 6, BS BD 3 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.

**Tolerances****Standard values**

Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0.95	0.1	0.4	0	0	4.8	0.9	0.15
1.05	0.4	0.8	0.03	0.03	5.5	1.2	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BA2-3

**BS BA 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BA2

via smartphone / tablet:

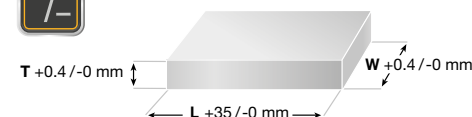


PREMIUM 1.2363 – BS BA 2 – AISI / SAE A2 (X100CrMoV5-1)

Precision flat steel with machining allowance [PFS/BA]

Length: 1,000 mm

	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
WIDTH	Available dimensions [mm]																	
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	0.1	0.4	0	0	4.8	0.9	0.15
1.05	0.4	0.8	0.03	0.03	5.5	1.2	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/BA2-4**Technical properties**

Air hardening cold work steel, good machinability, high wear resistance and improved toughness (reduced occurrence of hard carbides with about 5% chromium compared to 12% chromium in ledeburites BS BD 2, BS BD 6, BS BD 3 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.

**BS BA 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BA2

via smartphone / tablet:

NAVIGATION/
STEEL GRADES1.2990 mod.
1.2990 mod.1.2842
BO 2/BO 11.2826
1.28261.2767
1.27671.2767 ESU
1.2767 ESR1.2738
1.27381.2714
1.27141.2714+QT
1.2714+QT1.2709 ESU
1.2709 ESR1.2550
BS 11.2436
BD 61.2379
BD 21.2367
1.23671.2365
BH 10**1.2363**
BA 21.2361
1.23611.2360
~ Chipper1.2358
1.23581.2344
BH 131.2344 ESU
BH 13 ESR



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

ABRAMS![®]
PREMIUM STEEL

PREMIUM 1.2363 – BS BA 2 – 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!

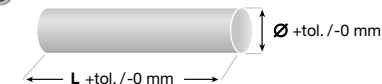
**Technical properties**

Air hardening cold work steel, good machinability, high wear resistance and improved toughness (reduced occurrence of hard carbides with about 5% chromium compared to 12% chromium in ledeburites BS BD 2, BS BD 6, BS BD 3 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.

**Tolerances****Standard values**

Delivery condition: maximum 241 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0.95	0.1	0.4	0	0	4.8	0.9	0.15
1.05	0.4	0.8	0.03	0.03	5.5	1.2	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BA2-7

**BS BA 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BA2

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR



FASTEST POSSIBLE DELIVERY !



ABRAMS!
PREMIUM STEEL

PREMIUM 1.2361 – BS 1.2361 – AISI / SAE 1.2361 (X91CrMoV18)

Precision flat steel with machining allowance [PFS/BA]

Length: 1,000 mm

	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
WIDTH	Available dimensions [mm]																	
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*					■	■	■	■	■	■	■	■	■	■	■	■		■

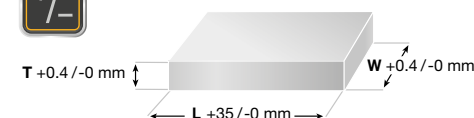
* Width and length sawn/black with +tol./-0 mm

**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: maximum 265 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V	Cu
0.86	0	0	0	0	17.0	0.9	0	0.07	0
0.96	1.0	1.0	0.045	0.03	19.0	1.3	0.3	0.12	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2361-4

**BS 1.2361 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2361

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358


1.2344
BH 13

1.2344 ESU
BH 13 ESR

1.2990 mod. 1.2990 mod.
1.2842 BO 2/BO 1
1.2826 1.2826
1.2767 1.2767
1.2767 ESU 1.2767 ESR
1.2738 1.2738
1.2714 1.2714
1.2714+QT 1.2714+QT
1.2709 ESU 1.2709 ESR
1.2550 BS 1
1.2436 BD 6
1.2379 BD 2
1.2367 1.2367
1.2365 BH 10
1.2363 BA 2
1.2361 1.2361
1.2360 ~ Chipper
1.2358 1.2358
1.2344 BH 13
1.2344 ESU BH 13 ESR

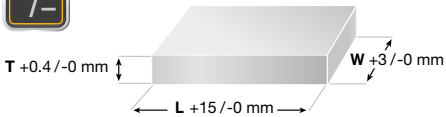
PREMIUM 1.2361 – BS 1.2361 – AISI / SAE 1.2361 (X91CrMoV18)

€co-Präz® 300 [€co]
Length: 300 mm

	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
WIDTH	Available dimensions [mm]																		
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	0	0	0	17.0	0.9	0	0.07	0
0.96	1.0	1.0	0.045	0.03	19.0	1.3	0.3	0.12	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk



Direct access to our online shop

www.premium-steel.co.uk/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.



BS 1.2361 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2361

via smartphone/tablet:



PREMIUM 1.2361 – BS 1.2361 – AISI / SAE 1.2361 (X91CrMoV18)

€co-Präz® 500 [€co]

Length: 500 mm

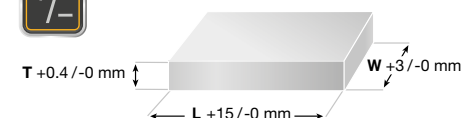
	THICKNESS [mm]																		
	2.3	3.3	4.3	5.3	6.3	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3
WIDTH	Available dimensions [mm]																		
33	■	■	■	■	■	■	■	■	■	■	■	■							
43	■	■	■	■	■	■	■	■	■	■	■	■	■						
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
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 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: maximum 265 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V	Cu
0.86	0	0	0	0	17.0	0.9	0	0.07	0
0.96	1.0	1.0	0.045	0.03	19.0	1.3	0.3	0.12	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2361-5-5

**BS 1.2361 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2361

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

NAVIGATION/
STEEL GRADES**PREMIUM 1.2361 – BS 1.2361 – AISI / SAE 1.2361 (X91CrMoV18)****Hart-Präz® 250 [Hart]**

Length: 250 mm

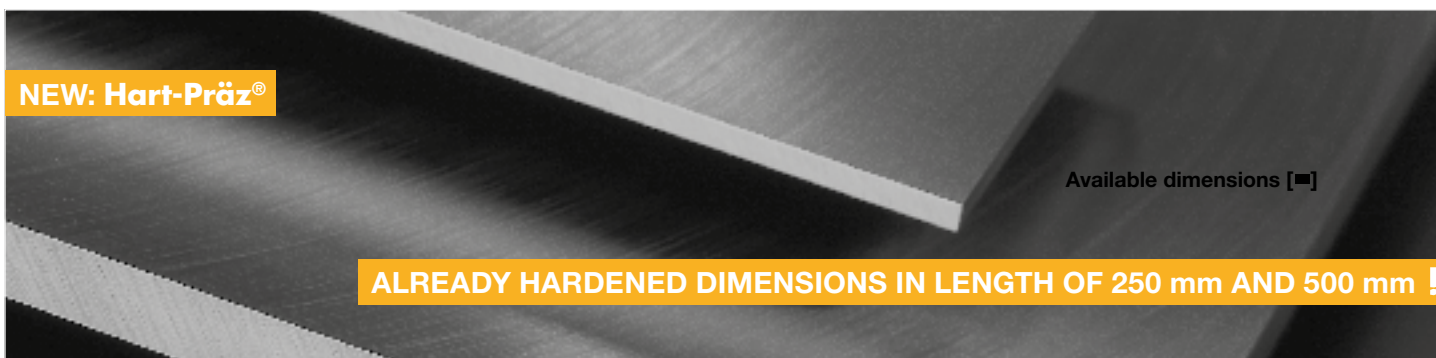
	THICKNESS [mm]												
	2.2	2.7	3.2	3.7	4.2	4.7	5.2	6.2	7.2	8.2	9.2	10.2	12.2
WIDTH	Available dimensions [mm]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

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 [mm]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

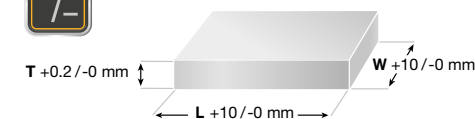
Hardened dimensions are delivered with approx. 53 HRC. at least 2x tempered.

**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	0	0	0	17.0	0.9	0	0.07	0
0.96	1.0	1.0	0.045	0.03	19.0	1.3	0.3	0.12	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2361-11-H

**BS 1.2361 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2361

via smartphone/tablet:



PREMIUM 1.2361 – BS 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		•

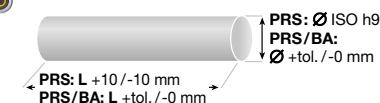
Larger diameters. up to 405.5 mm. and different lengths (e.g. round blanks) available on request!

**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: maximum 265 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V	Cu
0.86	0	0	0	0	17.0	0.9	0	0.07	0
0.96	1.0	1.0	0.045	0.03	19.0	1.3	0.3	0.12	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

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

**BS 1.2361 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2361

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

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

€co-Präz® 500 [€co]

Length: 500 mm

	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	
WIDTH	Available dimensions [mm]																			
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).

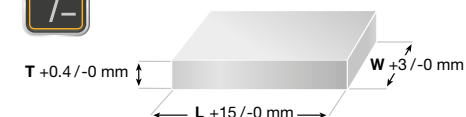
Thickness 2.3 up to 6.3 mm will be delivered as
Chipper-Knife-Steel (reduced content of vanadium -
 approx. 0.5 % V - in order to increase the toughness
 for your application).

**Technical properties**

Very robust cold work steel which can be used for a wide range of applications. Has a good through-hardening and high toughness (reduced occurrence of hard carbides with about 8% chromium compared to 12% chromium in BS BD 2, BS BD 6, BS BD 3 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 (BS ~Chipper)**

Delivery condition: maximum 250 HB
 Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0.45	0.7	0.35	0	0	7.3	1.3	1.3
0.5	0.9	0.45	0.02	0.005	7.8	1.5	1.5

**If you need customised dimensions -**

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

**Contact us**

T: +44 (0) 121 368 0910
 E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/Chipper-5

**BS ~Chipper – all at a glance!**

Datasheets, online shop,
 ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/Chipper

via smartphone/tablet:



PREMIUM 1.2360/1.2360 mod. – BS ~CHIPPER/~mod. – AISI / SAE ~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 occurrence of hard carbides with about 8% chromium compared to 12% chromium in BS BD 2, BS BD 6, BS BD 3 mod.). High cutting power, high wear resistance as well as excellent tempering resistance. Working hardness: 50-60 HRC.

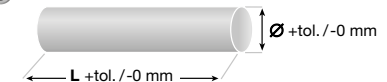


Applications

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 (BS ~Chipper)

Delivery condition: maximum 250 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0.45	0.7	0.35	0	0	7.3	1.3	1.3
0.5	0.9	0.45	0.02	0.005	7.8	1.5	1.5



If you need customised dimensions -

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



Contact us

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk



Direct access to our online shop

[PRS/BA] 1.2360/~Chipper

www.premium-steel.co.uk/Chipper-7

[PRS/BA] 1.2360 mod./~Chipper mod.

www.premium-steel.co.uk/Chippermod-7



BS ~Chipper – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/Chipper

via smartphone/tablet:



1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

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

€co-Präz® 300 [€co]

Length: 300 mm

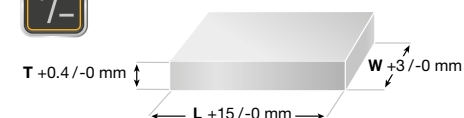
	THICKNESS [mm]																	
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3	140.3	150.3	
WIDTH	Available dimensions [mm]																	
33	■	■	■	■	■	■	■											
43	■	■	■	■	■	■	■	■										
53	■	■	■	■	■	■	■	■	■									
63	■	■	■	■	■	■	■	■	■	■								
73	■	■	■	■	■	■	■	■	■	■	■							
83	■	■	■	■	■	■	■	■	■	■	■	■						
93	■	■	■	■	■	■	■	■	■	■	■	■	■					
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

**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. BS 1.2358 can be a substitute for BS BD 2, BS BD 6, BS BD 3 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.

**Tolerances****Standard values**

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0.58	0.2	0.7	0	0	4.3	0.4	0.2
0.62	0.5	0.9	0.03	0.03	4.7	0.6	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2358-3-5

**BS 1.2358 – all at a glance!**

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

via smartphone/tablet:



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

Eco-Präz® 500 [€co]

Length: 500 mm

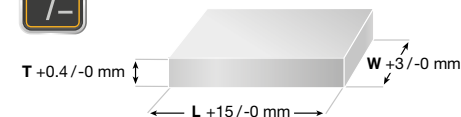
	THICKNESS [mm]																	
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3	140.3	150.3	
WIDTH	Available dimensions [mm]																	
33	■	■	■	■	■	■	■											
43	■	■	■	■	■	■	■	■										
53	■	■	■	■	■	■	■	■	■									
63	■	■	■	■	■	■	■	■	■	■								
73	■	■	■	■	■	■	■	■	■	■	■							
83	■	■	■	■	■	■	■	■	■	■	■	■						
93	■	■	■	■	■	■	■	■	■	■	■	■	■					
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

**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. BS 1.2358 can be a substitute for BS BD 2, BS BD 6, BS BD 3 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.

**Tolerances****Standard values**

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0.58	0.2	0.7	0	0	4.3	0.4	0.2
0.62	0.5	0.9	0.03	0.03	4.7	0.6	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2358-5-5

**BS 1.2358 – all at a glance!**

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

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 ESR

ABRAMS®

TOOL STEEL I

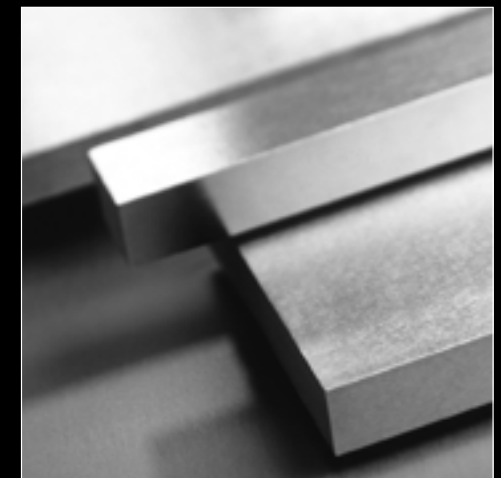
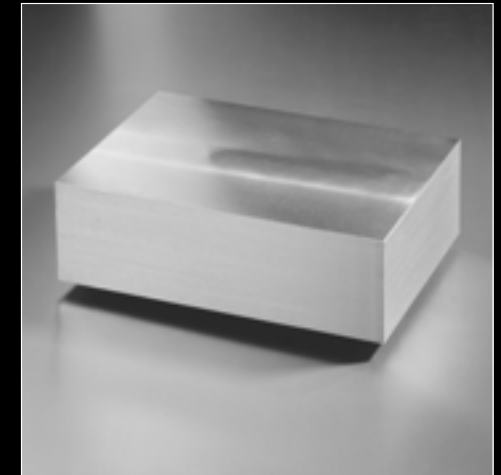
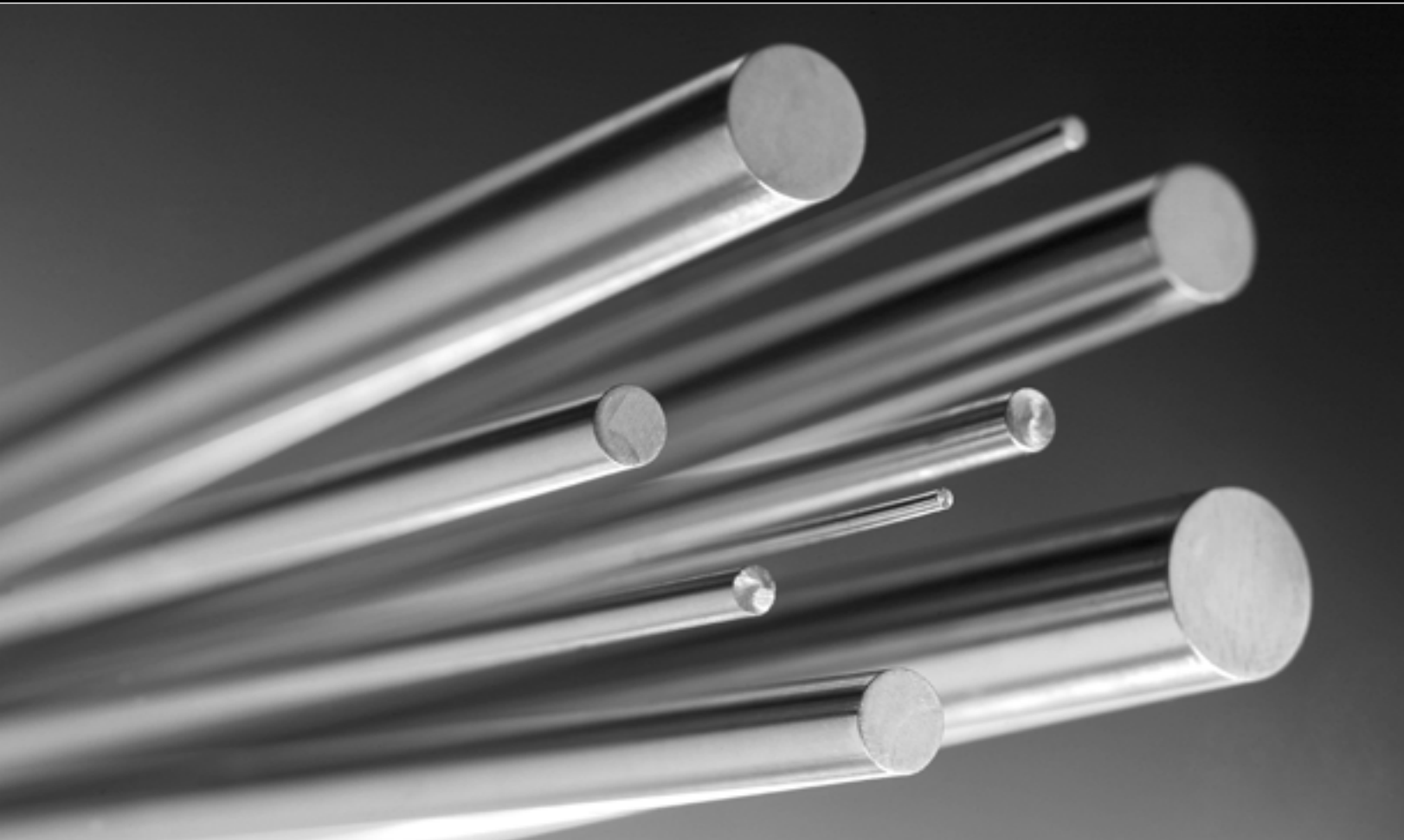
TOOL STEEL II

HIGH SPEED STEEL

STAINLESS STEEL
corrosion resistant / acid resistant

HEAT-TREATABLE STEEL,
CASE HARDENING- &
NITRIDING STEEL

INFORMATION



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

ABRAMS!
PREMIUM STEEL®

PREMIUM 1.2344 – BS BH 13 – 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		•

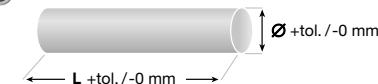
Larger diameters, up to 635.5 mm, and different lengths (e.g. round blanks) available on request!

**Technical properties**

Hot work steel with excellent heat resistance and high wear resistance (slightly higher than BS BH 11). 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, piercer 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
0.35	0.8	0.25	0	0	4.8	1.2	0.85
0.42	1.2	0.5	0.03	0.02	5.5	1.5	1.15

**If you need customised dimensions -**

Any dimension available in different lengths (e.g. round blanks).

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BH13-7

**BS BH 13 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BH13

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

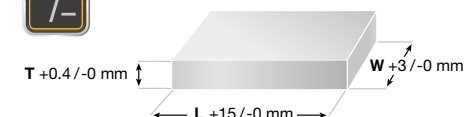
1.2344 ESU
BH 13 ESR

PREMIUM 1.2344 ESU – BS BH 13 ESR – AISI / SAE H13 ESR (X40CrMoV5-1)

€co-Präz® 300 [€co]

Length: 300 mm

	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	
WIDTH	Available dimensions [mm]																
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	0.8	0.25	0	0	4.8	1.2	0.85
0.42	1.2	0.5	0.03	0.02	5.5	1.5	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BH13ESR-3-5

**Technical properties**

Hot work steel with excellent heat resistance and wear resistance (slightly higher than BS BH 11). 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 homogeneity, 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.

**BS BH 13 ESR – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BH13ESR

via smartphone/tablet:



PREMIUM 1.2344 ESU – BS BH 13 ESR – AISI / SAE H13 ESR (X40CrMoV5-1)

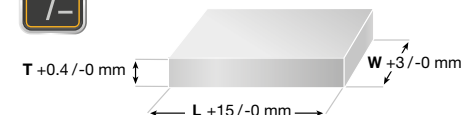
€co-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]															
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	0.8	0.25	0	0	4.8	1.2	0.85
0.42	1.2	0.5	0.03	0.02	5.5	1.5	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk



Direct access to our online shop

www.premium-steel.co.uk/BH13ESR-5-5



Technical properties

Hot work steel with excellent heat resistance and wear resistance (slightly higher than BS BH 11). Good toughness and thermal conductivity. Can be cooled with water and is resistant to thermal shock. The ESR production (Electro Slag Remelted Steel) guarantees purity and homogeneity, 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, piercer plugs, screw production, rivet production, bolts production, ejectors, plastic moulds.



BS BH 13 ESR – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BH13ESR

via smartphone / tablet:



1.2990 mod.
1.2990 mod.

1.2842
BO 2/BO 1

1.2826
1.2826

1.2767
1.2767

1.2767 ESU
1.2767 ESR

1.2738
1.2738

1.2714
1.2714

1.2714+QT
1.2714+QT

1.2709 ESU
1.2709 ESR

1.2550
BS 1

1.2436
BD 6

1.2379
BD 2

1.2367
1.2367

1.2365
BH 10

1.2363
BA 2

1.2361
1.2361

1.2360
~ Chipper

1.2358
1.2358

1.2344
BH 13

1.2344 ESU
BH 13 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 – BS 1.1730:** **W** +0.4/-0 mm, **T** +0.25/-0 mm



Precision round steel without machining allowance [PRS]

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



Precision flat steel with machining allowance [PRS/BA]

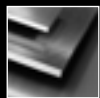
For example: 100.3 x 20.3 x 1,000 mm

- **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.: \varnothing +tol./-0 mm, **L** +tol./-0 mm
- **Exception PREMIUM 1.3343 – BS BM 2**
L 1,000 mm, tol. **L** +10/-10 mm
- **Particularity: PREMIUM 1.2826 – BS 1.2826, PREMIUM 1.2360 – BS ~ Chipper /~ mod. PREMIUM 1.2067 – BS 1.2367:**
 \varnothing are metric full values (for example 30.0 mm), therefore there is no basic machining allowance (for example 30.5 mm)



Eco-Präz® [Eco]

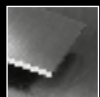
For example: 103 x 20.3 x 500 mm

- **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.: \varnothing +1/-1 mm (aspired), **L** +tol./-0 mm



Hart-Präz® [Hart]

For example: 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.co.uk/glossary



TOOL STEEL II

STEEL GRADE

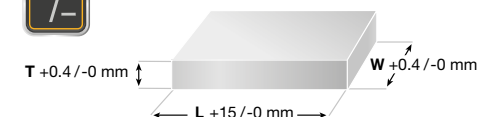
Description		PFS 500 mm	PFS 1 000 mm	PFS / BA 500 mm	PFS / BA 1 000 mm	PFS / BA 200, 300, 400, 600 mm	Eco-Präz [®] 300, 500, 1 000 mm	Hart-Präz [®] 250, 500 mm	Erosion block (annealed, hardened)	PFS ISO H8 / H9 / H11 1 000 mm	PFS / BA 500 mm	PFS / BA 1 000 mm	RS 500 mm	RS 1 000 mm	Delivery hardness (annealed/tempered) max. [HB]	Delivery hardness (hardened) approx. [HRC]	Approx. tensile strength (deliv. cond.) [N/mm²]	Max. working hardness [N/mm²]	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 BS BH 11	X37CrMoV5-1			✓	✓				✓	✓	✓			229	770	54		✓	✓								1.2343 BH 11
PREMIUM 1.2343 ESU BS BH 11 ESR	X37CrMoV5-1				✓		✓							229	770	54		✓	✓								1.2343 ESU BH 11 ESR
PREMIUM 1.2316 BS 1.2316	X38CrMo16					✓			✓	✓	✓			325	1100	48			✓		✓	✓					1.2316 1.2316
PREMIUM 1.2312 BS 1.2312	40CrMnMoS8-6			✓	✓				✓	✓	✓			325	1100	50	✓		✓								1.2312 1.2312
PREMIUM 1.2311 BS 1.2311	40CrMnMo7			✓	✓					✓	✓			325	1100	50	✓		✓								1.2311 1.2311
PREMIUM 1.2294 BS 1.2294	~X5CrS12			✓			✓			✓	✓			330	1125	35			✓		✓						1.2294 1.2294
PREMIUM 1.2210 BS 1.2210	115CrV3							✓						220	750	62	✓										1.2210 1.2210
PREMIUM 1.2162 BS 1.2162	21MnCr5				✓		✓					✓	✓	217	720	60	✓		✓						✓		1.2162 1.2162
PREMIUM 1.2099 BS 1.2099	~X5CrS12			✓			✓			✓	✓			330	1125	35			✓		✓						1.2099 1.2099
PREMIUM 1.2085/1.2099 BS 1.2085/1.2099	X33CrS16 / ~X5CrS12			✓	✓		✓			✓	✓			330	1125	48			✓		✓						1.2085 1.2085
PREMIUM 1.2083 BS 1.2083	X40Cr14				✓		✓	✓		✓	✓	✓		241	50	815	55			✓		✓	✓				1.2083 1.2083
PREMIUM 1.2083 ESU BS 1.2083 ESR	X40Cr14						✓							241		815	55			✓		✓	✓				1.2083 ESU 1.2083 ESR
PREMIUM 1.2080 BS BD 3	~X210Cr12	✓		✓	✓		✓			✓	✓			255	58	860	62	✓		✓							1.2080 BD 3
PREMIUM 1.2067/1.3505 BS BL 3/BL 1	102Cr6 / 100Cr6						✓			✓		✓		223		750	64	✓									1.2067 BL 3/BL 1
PREMIUM 1.1730 BS 1.1730	C45U	✓	✓						✓				✓	✓	190		650	54	✓								1.1730 1.1730
PREMIUM 1.0570 BS 1.0570	St 52-3 / ~S355J2+N			✓	✓				✓				✓	✓	180		625	< 20	✓								1.0570 1.0570
PREMIUM Toolox 33 BS Toolox 33	Toolox 33						✓							330		1125	36	✓		✓							Toolox 33 Toolox 33
PREMIUM Toolox 44 BS Toolox 44	Toolox 44						✓			✓	✓			418		1420	45	✓		✓							Toolox 44 Toolox 44

PREMIUM 1.2343 – BS BH 11 – AISI / SAE H11 (X37CrMoV5-1)

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 [mm]																			
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	0.8	0.25	0	0	4.8	1.1	0.3
0.41	1.2	0.5	0.03	0.02	5.5	1.5	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BH11-3

**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 homogeneity, 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.

**BS BH 11 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BH11

via smartphone / tablet:

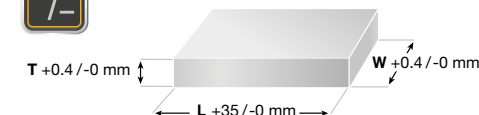


PREMIUM 1.2343 – BS BH 11 – AISI / SAE H11 (X37CrMoV5-1)

Precision flat steel with machining allowance [PFS/BA]

Length: 1,000 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 [mm]																			
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	0.8	0.25	0	0	4.8	1.1	0.3
0.41	1.2	0.5	0.03	0.02	5.5	1.5	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/BH11-4**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 homogeneity, as well as improved toughness. Working hardness: 50-54 HRC.

**Applications**

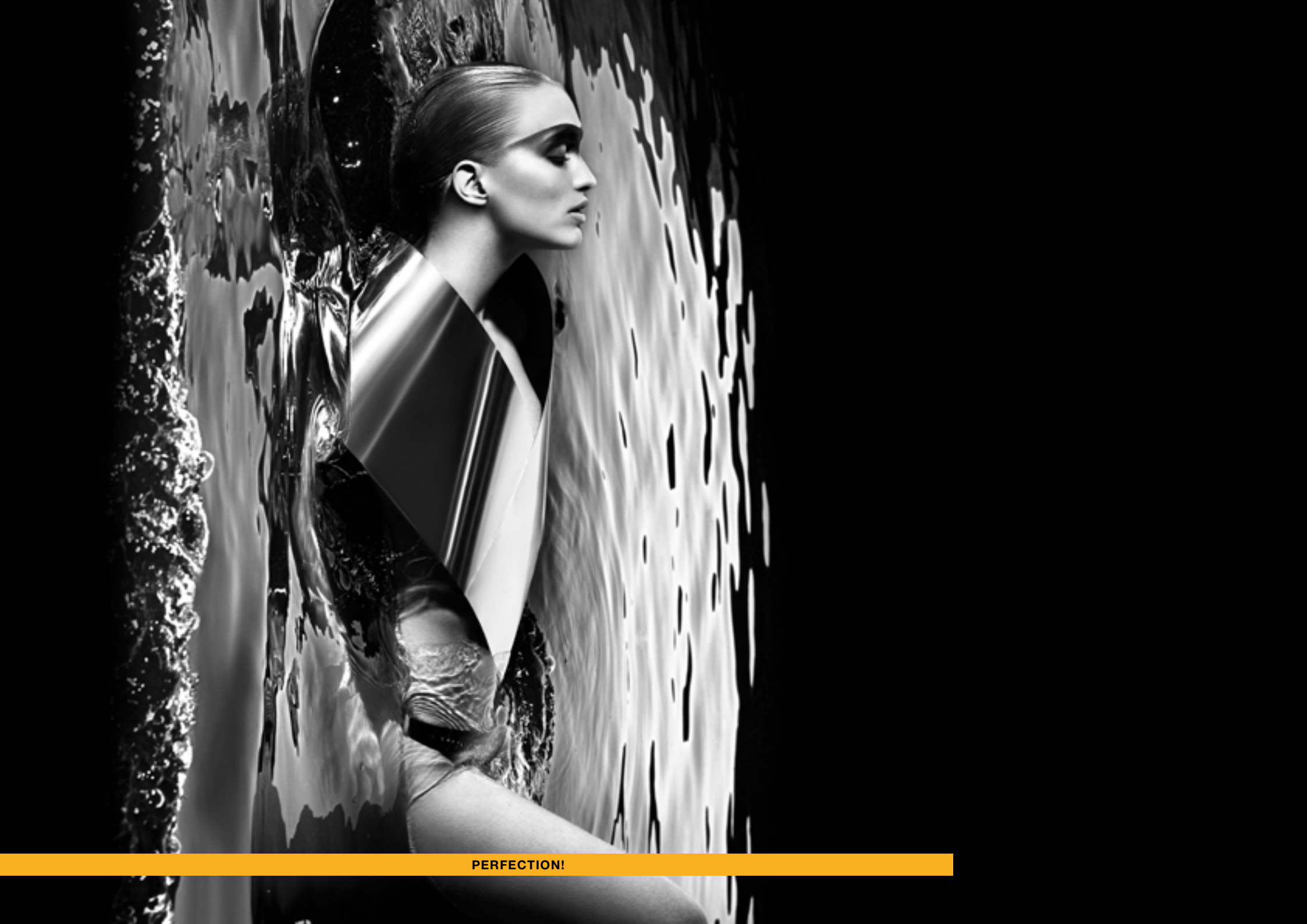
Forging tools and dies, hot shear knives, hot extrusion tools, extrusion press tools, press tools, block receivers, die casting tools, light metal die casting, press mandrels, press dies, piecer plugs, screw production, rivet production, bolts production, ejectors, plastic moulds.

**BS BH 11 – all at a glance!**

Datasheets, online shop, ABRAMS STEEL GUIDE® for alternatives: www.premium-steel.co.uk/BH11

via smartphone/tablet:

NAVIGATION/
STEEL GRADES1.2343
BH 111.2343 ESU
BH 11 ESR1.2316
1.23161.2312
1.23121.2311
1.23111.2294
1.22941.2210
1.22101.2162
1.21621.2099
1.20991.2085
1.20851.2083
1.20831.2083 ESU
1.2083 ESR1.2080 mod.
BD 31.2067
BL 3/BL 11.1730
1.17301.0570
1.0570Toolox 33
Toolox 33Toolox 44
Toolox 44



PERFECTION!

PREMIUM 1.2343 – BS BH 11 – 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		•

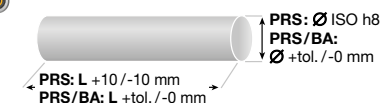
Larger diameters, up to 680.5 mm, and different lengths (e.g. round blanks) available on request!

**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	0.8	0.25	0	0	4.8	1.1	0.3
0.41	1.2	0.5	0.03	0.02	5.5	1.5	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

www.premium-steel.co.uk/BH11-6

[PRS/BA]

www.premium-steel.co.uk/BH11-7

**BS BH 11 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BH11

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44



THE PERFECT FINISH ...

... OUR COMMITMENT FOR YOUR MOULD AND DIE PRODUCTION!

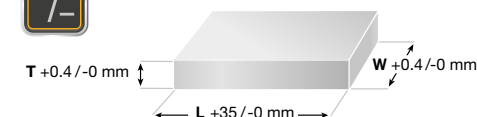
ABRAMS![®]
PREMIUM STEEL

PREMIUM 1.2343 ESU – BS BH 11 ESR – AISI / SAE H11 (X37CrMoV5-1)

Precision flat steel with machining allowance [PFS/BA]

Length: 1,000 mm

	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	
WIDTH	Available dimensions [mm]															
	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	0.8	0.25	0	0	4.8	1.1	0.3
0.41	1.2	0.5	0.03	0.02	5.5	1.5	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/BH11ESR-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.

**BS BH 11 ESR – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BH11ESR


via smartphone/tablet:

NAVIGATION/
STEEL GRADES1.2343
BH 111.2343 ESU
BH 11 ESR1.2316
1.23161.2312
1.23121.2311
1.23111.2294
1.22941.2210
1.22101.2162
1.21621.2099
1.20991.2085
1.20851.2083
1.20831.2083 ESU
1.2083 ESR1.2080 mod.
BD 31.2067
BL 3/BL 11.1730
1.17301.0570
1.0570Toolox 33
Toolox 33Toolox 44
Toolox 44

PREMIUM 1.2343 ESU – BS BH 11 ESR – AISI / SAE H11 (X37CrMoV5-1)

€co-Präz® 300 [€co]

Length: 300 mm

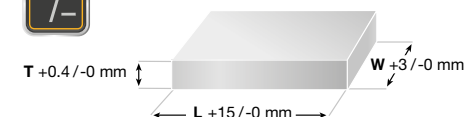
	THICKNESS [mm]															
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3	140.3
WIDTH	Available dimensions [mm]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

**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	0.8	0.25	0	0	4.8	1.1	0.3
0.41	1.2	0.5	0.03	0.02	5.5	1.5	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BH11ESR-3-5

**BS BH 11 ESR – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BH11ESR

via smartphone/tablet:



PREMIUM 1.2343 ESU – BS BH 11 ESR – AISI / SAE H11 (X37CrMoV5-1)

€co-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]												
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 homogeneity, as well as improved toughness. Working hardness: 50-54 HRC.

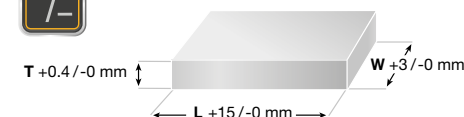


Applications

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	0.8	0.25	0	0	4.8	1.1	0.3
0.41	1.2	0.5	0.03	0.02	5.5	1.5	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk



Direct access to our online shop

www.premium-steel.co.uk/BH11ESR-5-5



BS BH 11 ESR – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BH11ESR

via smartphone/tablet:



NAVIGATION/ STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44

PREMIUM 1.2316 – BS 1.2316 – AISI / SAE 1.2316 (X38CrMo16)

€co-Präz® 300 [€co]

Length: 300 mm

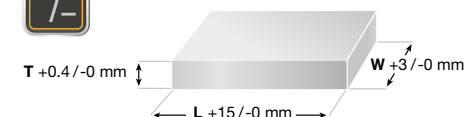
	THICKNESS [mm]																
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3	140.3	
WIDTH	Available dimensions [mm]																
33	■	■	■	■	■	■	■										
43	■	■	■	■	■	■	■	■									
53	■	■	■	■	■	■	■	■	■								
63	■	■	■	■	■	■	■	■	■	■							
73	■	■	■	■	■	■	■	■	■	■	■						
83	■	■	■	■	■	■	■	■	■	■	■	■					
93	■	■	■	■	■	■	■	■	■	■	■	■	■				
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

**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.

**Tolerances****Standard values**

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0.33	0	0	0	0	15.5	0.8	0
0.45	1.0	1.5	0.03	0.03	17.5	1.3	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2316-3-5

**BS 1.2316 – all at a glance!**

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

via smartphone/tablet:



PREMIUM 1.2316 – BS 1.2316 – AISI / SAE 1.2316 (X38CrMo16)

Eco-Präz® 500 [€co]

Length: 500 mm

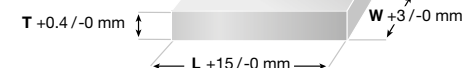
	THICKNESS [mm]															
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3	140.3
WIDTH	Available dimensions [mm]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

**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.

**Tolerances****Standard values**

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0.33	0	0	0	0	15.5	0.8	0
0.45	1.0	1.5	0.03	0.03	17.5	1.3	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2316-5-5

**BS 1.2316 – all at a glance!**

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

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44



PRECISION!

ABRAMS[®]
PREMIUM STEEL

PREMIUM 1.2316 – BS 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		•

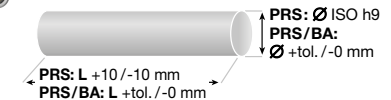
Larger diameters, up to 550.5 mm, and different lengths (e.g. round blanks) available on request!

**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.

**Tolerances****Standard values**

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0.33	0	0	0	0	15.5	0.8	0
0.45	1.0	1.5	0.03	0.03	17.5	1.3	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

www.premium-steel.co.uk/2316-6

[PRS/BA]

www.premium-steel.co.uk/2316-7

**BS 1.2316 – all at a glance!**

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

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570


Toolox 33
Toolox 33

Toolox 44
Toolox 44

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

Precision flat steel with machining allowance [PFS/BA]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]																		
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 *					■	■	■	■	■	■	■	■	■	■	■				

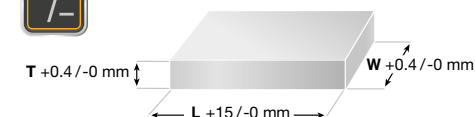
* Width and length sawn/raw with +tol./-0 mm

**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-hardenable 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	0.3	1.4	0	0.05	1.8	0.15
0.45	0.5	1.6	0.03	0.1	2.0	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2312-3

**BS 1.2312 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2312

via smartphone / tablet:



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

Precision flat steel with machining allowance [PFS/BA]

Length: 1,000 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	70.3	80.3	90.3	100.3	
WIDTH	Available dimensions [mm]																			
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 *					■	■	■	■	■	■	■	■	■	■	■					

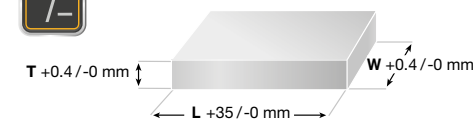
* Width and length sawn/raw with +tol./-0 mm

**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-hardenableity 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	0.3	1.4	0	0.05	1.8	0.15
0.45	0.5	1.6	0.03	0.1	2.0	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2312-4

**BS 1.2312 – all at a glance!**

Datasheets, online shop, ABRAMS STEEL GUIDE® for alternatives: www.premium-steel.co.uk/1.2312

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44



PREMIUM QUALITY - OUR HIGHEST STANDARD!

ABRAMS®
PREMIUM STEEL

PREMIUM 1.2312 – BS 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		•

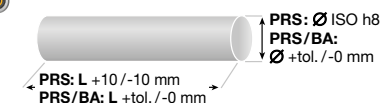
Larger diameters, up to 400.5 mm, and different lengths (e.g. round blanks) available on request!

**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-hardenedability 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	0.3	1.4	0	0.05	1.8	0.15
0.45	0.5	1.6	0.03	0.1	2.0	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**

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

www.premium-steel.co.uk/2312-6
[PRS/BA]
www.premium-steel.co.uk/2312-7

**BS 1.2312 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2312

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44

PREMIUM 1.2311 – BS 1.2311 – AISI / SAE P20 (40CrMnMo7)

Precision flat steel with machining allowance [PFS/BA]

Length: 500 mm

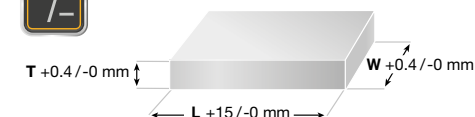
		THICKNESS [mm]											
		6,2	8,2	10,3	12,3	15,3	16,3	20,3	25,3	30,3	32,3	40,3	50,3
WIDTH		Available dimensions [mm]											
1.2316 1.2316	12.3				■								
1.2312 1.2312	16.3						■						
1.2311 1.2311	20.3		■	■	■	■		■					
1.2294 1.2294	25.3		■	■	■	■	■	■	■				
1.2210 1.2210	30.3		■	■	■	■	■	■	■				
1.2162 1.2162	32.3	■	■	■	■	■	■	■	■		■		
1.2099 1.2099	40.3	■	■	■	■	■	■	■	■	■			
1.2085 1.2085	50.3	■	■	■	■	■	■	■	■	■	■	■	
1.2083 1.2083	60.3	■	■	■	■	■	■	■	■	■	■	■	■
1.2083 ESU 1.2083 ESR	63.3	■	■	■	■	■	■	■	■	■	■	■	■
1.2080 mod. BD 3	70.3	■	■	■	■	■	■	■	■	■	■	■	■
1.2067 BL 3/BL 1	80.3	■	■	■	■	■	■	■	■	■	■	■	■
1.1730 1.1730	100.3	■	■	■	■	■	■	■	■	■	■	■	■
1.0570 1.0570	125.3		■	■	■	■	■	■	■	■	■	■	■
Toolox 33 Toolox 33	150.3		■	■	■	■	■	■	■	■	■	■	■
Toolox 44 Toolox 44	175.3		■	■	■	■	■	■	■	■	■	■	■
	200.3		■	■	■	■	■	■	■	■	■	■	■
	220.3			■	■	■	■	■	■	■	■	■	■
	250.3			■	■	■	■	■	■	■	■	■	■
	300.3			■	■	■	■	■	■	■	■	■	■

**Technical properties**

Pre-hardened cold work steel and plastic mould steel.
Good polishability and etchability. High through-hardening 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.

**Tolerances****Standard values**

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0.35	0.2	1.3	0	0	1.8	0.15
0.45	0.4	1.6	0.035	0.035	2.1	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2311-3

**BS 1.2311 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2311

via smartphone / tablet:



PREMIUM 1.2311 – BS 1.2311 – AISI / SAE P20 (40CrMnMo7)

Precision flat steel with machining allowance [PFS/BA]

Length: 1,000 mm

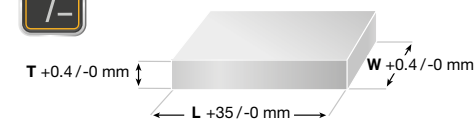
	THICKNESS [mm]											
	6.2	8.2	10.3	12.3	15.3	16.3	20.3	25.3	30.3	32.3	40.3	50.3
WIDTH	Available dimensions [mm]											
12.3				■								
16.3						■						
20.3		■	■	■	■		■					
25.3		■	■	■	■	■	■	■				
30.3		■	■	■	■	■	■	■				
32.3	■	■	■	■	■	■	■	■		■		
40.3	■	■	■	■	■	■	■	■	■			
50.3	■	■	■	■	■	■	■	■	■	■	■	
60.3	■	■	■	■	■	■	■	■	■	■	■	■
63.3	■	■	■	■	■	■	■	■	■	■	■	■
70.3	■	■	■	■	■	■	■	■	■	■	■	■
80.3	■	■	■	■	■	■	■	■	■	■	■	■
100.3	■	■	■	■	■	■	■	■	■	■	■	■
125.3		■	■	■	■	■	■	■	■	■	■	■
150.3		■	■	■	■	■	■	■	■	■	■	■
175.3		■	■	■	■	■	■	■	■	■	■	■
200.3		■	■	■	■	■	■	■	■	■	■	■
220.3			■	■	■	■	■	■	■	■	■	■
250.3			■	■	■	■	■	■	■	■	■	■
300.3			■	■	■	■	■	■	■	■	■	■

**Technical properties**

Pre-hardened cold work steel and plastic mould steel.
Good polishability and etchability. High through-hardenedness 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.

**Tolerances****Standard values**

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0.35	0.2	1.3	0	0	1.8	0.15
0.45	0.4	1.6	0.035	0.035	2.1	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2311-4

**BS 1.2311 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2311

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44



PERFECT MATERIAL SELECTION WITH THE **ABRAMS STEEL GUIDE®**: WWW.STEEL-GUIDE.CO.UK

ABRAMS![®]
PREMIUM STEEL

PREMIUM 1.2311 – BS 1.2311 – AISI / SAE P20 (40CrMnMo7)

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		•

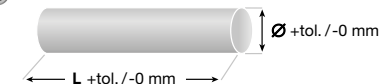
Larger diameters, up to 400.5 mm, and different lengths (e.g. round blanks) available on request!

**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.

**Tolerances****Standard values**

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0.35	0.2	1.3	0	0	1.8	0.15
0.45	0.4	1.6	0.035	0.035	2.1	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**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2311-7

**BS 1.2311 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2311

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44

PREMIUM 1.2294 – BS 1.2294 – AISI / SAE 1.2294 (~X5CrS12)

Precision flat steel with machining allowance [PFS/BA]

Length: 500 mm

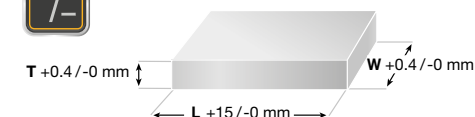
		THICKNESS [mm]								
		6.2	8.2	10.3	15.3	20.3	25.3	30.3	40.3	50.3
WIDTH		Available dimensions [mm]								
1.2343 BH 11	20.3	■	■	■						
1.2343 ESU BH 11 ESR	25.3	■	■	■	■					
1.2316 1.2316	30.3	■	■	■	■	■				
1.2312 1.2312	40.3	■	■	■	■	■	■			
1.2311 1.2311	50.3	■	■	■	■	■	■	■		
1.2294 1.2294	60.3	■	■	■	■	■	■	■	■	
1.2210 1.2210	80.3	■	■	■	■	■	■	■	■	■
1.2162 1.2162	100.3	■	■	■	■	■	■	■	■	■
1.2099 1.2099	125.3	■	■	■	■	■	■	■	■	■
1.2085 1.2085	150.3	■	■	■	■	■	■	■	■	■
1.2083 1.2083	200.3	■	■	■	■	■	■	■	■	■
1.2083 ESU 1.2083 ESR	250.3	■	■	■	■	■	■	■	■	■
1.2080 mod. BD 3	300.3	■	■	■	■	■	■	■	■	■
1.2067 BL 3/BL 1										
1.1730 1.1730										
1.0570 1.0570										

**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	1.3	0.15	12.5
0.05	1.3	0.15	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2294-3

**BS 1.2294 – all at a glance!**

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

via smartphone / tablet:



PREMIUM 1.2294 – BS 1.2294 – AISI / SAE 1.2294 (~X5CrS12)

Eco-Präz® 500 [€co]

Length: 500 mm

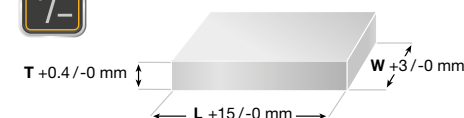
	THICKNESS [mm]																
	2.3	3.3	4.3	5.3	6.3	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3
WIDTH	Available dimensions [mm]																
33	■	■	■	■	■	■											
43	■	■	■	■	■	■											
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
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	1.3	0.15	12.5
0.05	1.3	0.15	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2294-5

**BS 1.2294 – all at a glance!**

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

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44



CORROSION RESISTANT STEEL!

ABRAMS®
PREMIUM STEEL

PREMIUM 1.2294 – BS 1.2294 – AISI / SAE 1.2294 (~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		•

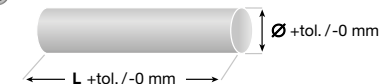
Larger diameters, up to 180.5 mm, and different lengths (e.g. round blanks) available on request!

**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	1.3	0.15	12.5
0.05	1.3	0.15	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2294-7

**BS 1.2294 – all at a glance!**

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

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

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

PREMIUM 1.2210 – BS 1.2210 – AISI / SAE L2 (115CrV3)

Precision round steel without machining allowance/Silver Steel [PRS]

Specification: bright ground, ISO h8

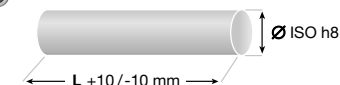
Ø [mm]	LENGTH [mm]					
	1,000					
	Available dimensions [•]					
1.0	•	»	•	»	•	»
1.2	•	6.2	•	11.2	•	19.5
1.5	•	6.5	•	11.5	•	20.0
1.7	•	6.7	•	11.7	•	21.0
2.0	•	7.0	•	12.0	•	22.0
2.2	•	7.2	•	12.2	•	23.0
2.5	•	7.5	•	12.5	•	24.0
2.7	•	7.7	•	12.7	•	25.0
3.0	•	8.0	•	13.0	•	26.0
3.2	•	8.2	•	13.5	•	27.0
3.5	•	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	0.15	0.2	0	0	0.5	0.07
1.25	0.3	0.4	0.03	0.03	0.8	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**

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2210-6

**BS 1.2210 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2210

via smartphone/tablet:

NAVIGATION/
STEEL GRADES1.2343
BH 111.2343 ESU
BH 11 ESR1.2316
1.23161.2312
1.23121.2311
1.23111.2294
1.22941.2210
1.22101.2162
1.21621.2099
1.20991.2085
1.20851.2083
1.20831.2083 ESU
1.2083 ESR1.2080 mod.
BD 31.2067
BL 3/BL 11.1730
1.17301.0570
1.0570Toolox 33
Toolox 33Toolox 44
Toolox 44

PERFECTION !



ABRAMS![®]
PREMIUM STEEL

PREMIUM 1.2162 – BS 1.2162 – AISI / SAE 1.2162 (21MnCr5)

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	36.3	40.3	50.3	60.3	70.3	80.3	100.3
WIDTH	Available dimensions [mm]															
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 *		■	■	■	■	■	■	■		■	■	■	■			

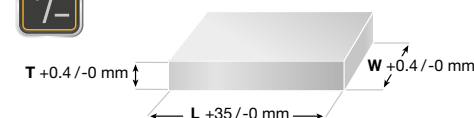
* Width and length sawn/raw with +tol./-0 mm

**Technical properties**

Cold work steel and plastic mould steel. High surface hardness with high core toughness. Excellent 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.

**Tolerances****Standard values**

Delivery condition: maximum 217 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0.18	0.15	1.1	0	0	1.0
0.24	0.35	1.4	0.03	0.03	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2162-4

**BS 1.2162 – all at a glance!**

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

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44

PREMIUM 1.2162 – BS 1.2162 – AISI / SAE 1.2162 (21MnCr5)

€co-Präz® 500 [€co]

Length: 500 mm

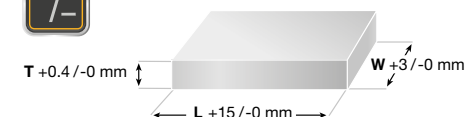
		THICKNESS [mm]									
		6.3	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3
WIDTH		Available dimensions [mm]									
		33	43	53	63	73	83	93	103	123	143
1.2343	BH 11	■	■	■	■	■	■	■	■	■	■
1.2343 ESU	BH 11 ESR	■	■	■	■	■	■	■	■	■	■
1.2316		■	■	■	■	■	■	■	■	■	■
1.2312		■	■	■	■	■	■	■	■	■	■
1.2312		■	■	■	■	■	■	■	■	■	■
1.2311		■	■	■	■	■	■	■	■	■	■
1.2311		■	■	■	■	■	■	■	■	■	■
1.2294		■	■	■	■	■	■	■	■	■	■
1.2294		■	■	■	■	■	■	■	■	■	■
1.2210		■	■	■	■	■	■	■	■	■	■
1.2210		■	■	■	■	■	■	■	■	■	■
1.2162		■	■	■	■	■	■	■	■	■	■
1.2162		■	■	■	■	■	■	■	■	■	■
1.2099		■	■	■	■	■	■	■	■	■	■
1.2099		■	■	■	■	■	■	■	■	■	■
1.2085		■	■	■	■	■	■	■	■	■	■
1.2085		■	■	■	■	■	■	■	■	■	■
1.2083		■	■	■	■	■	■	■	■	■	■
1.2083		■	■	■	■	■	■	■	■	■	■
1.2083 ESU		■	■	■	■	■	■	■	■	■	■
1.2083 ESR		■	■	■	■	■	■	■	■	■	■
1.2080 mod.		■	■	■	■	■	■	■	■	■	■
BD 3		■	■	■	■	■	■	■	■	■	■
1.2067		■	■	■	■	■	■	■	■	■	■
BL 3/BL 1		■	■	■	■	■	■	■	■	■	■
1.1730		■	■	■	■	■	■	■	■	■	■
1.1730		■	■	■	■	■	■	■	■	■	■
1.0570		■	■	■	■	■	■	■	■	■	■
1.0570		■	■	■	■	■	■	■	■	■	■

**Technical properties**

Cold work steel and plastic mould steel. High surface hardness with high core toughness. Excellent 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.

**Tolerances****Standard values**

Delivery condition: maximum 217 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0.18	0.15	1.1	0	0	1.0
0.24	0.35	1.4	0.03	0.03	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/1.2162-5

**BS 1.2162 – all at a glance!**

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

via smartphone / tablet:



PREMIUM 1.2162 – BS 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		•

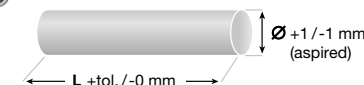
Larger diameters, up to 200 mm, and different lengths (e.g. round blanks) available on request!

**Technical properties**

Cold work steel and plastic mould steel. High surface hardness with high core toughness. Excellent 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.

**Tolerances****Standard values**

Delivery condition: maximum 217 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0.18	0.15	1.1	0	0	1.0
0.24	0.35	1.4	0.03	0.03	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2162-8

**BS 1.2162 – all at a glance!**

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

via smartphone/tablet:

NAVIGATION/
STEEL GRADES1.2343
BH 111.2343 ESU
BH 11 ESR1.2316
1.23161.2312
1.23121.2311
1.23111.2294
1.22941.2210
1.22101.2162
1.21621.2099
1.20991.2085
1.20851.2083
1.20831.2083 ESU
1.2083 ESR1.2080 mod.
BD 31.2067
BL 3/BL 11.1730
1.17301.0570
1.0570Toolox 33
Toolox 33Toolox 44
Toolox 44



ROUND STEEL – IN BLACK !



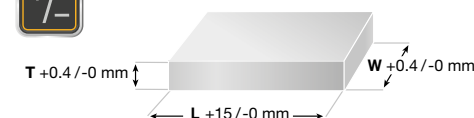
ABRAMS![®]
PREMIUM STEEL

PREMIUM 1.2099 – BS 1.2099 – AISI / SAE 1.2099 (~X5CrS12)

Precision flat steel with machining allowance [PFS/BA]

Length: 500 mm

	THICKNESS [mm]									
	6.2	8.2	10.3	15.3	20.3	25.3	30.3	40.3	50.3	
WIDTH	Available dimensions [mm]									
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	1.0	0.12	12.5
0.05	1.0	0.12	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/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.

**BS 1.2099 – all at a glance!**

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


via smartphone / tablet:

NAVIGATION/
STEEL GRADES1.2343
BH 111.2343 ESU
BH 11 ESR1.2316
1.23161.2312
1.23121.2311
1.23111.2294
1.22941.2210
1.22101.2162
1.21621.2099
1.20991.2085
1.20851.2083
1.20831.2083 ESU
1.2083 ESR1.2080 mod.
BD 31.2067
BL 3/BL 11.1730
1.17301.0570
1.0570Toolox 33
Toolox 33Toolox 44
Toolox 44

PREMIUM 1.2099 – BS 1.2099 – AISI / SAE 1.2099 (~X5CrS12)

€co-Präz® 500 [€co]

Length: 500 mm

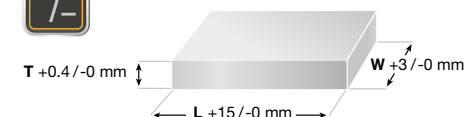
	THICKNESS [mm]																
	2.3	3.3	4.3	5.3	6.3	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3
WIDTH	Available dimensions [mm]																
33	■	■	■	■	■	■											
43	■	■	■	■	■	■											
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
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	1.0	0.12	12.5
0.05	1.0	0.12	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2099-5

**BS 1.2099 – all at a glance!**

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

via smartphone/tablet:



PREMIUM 1.2099 – BS 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		•

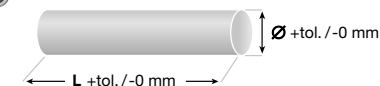
Larger diameters, up to 180.5 mm, and different lengths (e.g. round blanks) available on request!

**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	1.0	0.12	12.5
0.05	1.0	0.12	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2099-7

**BS 1.2099 – all at a glance!**

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

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

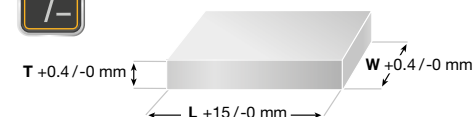
Toolox 44
Toolox 44

PREMIUM 1.2085/1.2099 – BS 1.2085/1.2099 – AISI / SAE 420FM/1.2099 (X33CrS16/~X5CrS12)

Precision flat steel with machining allowance [PFS/BA]

Length: 500 mm

		THICKNESS [mm]										
		6.2	8.2	10.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	80.3
WIDTH		Available dimensions [mm]										
1.2343 BH 11	20.3	■	■	■	■	■						
1.2343 ESU BH 11 ESR	25.3	■	■	■	■	■	■					
1.2316	30.3	■	■	■	■	■	■	■				
1.2316	40.3	■	■	■	■	■	■	■	■			
1.2312	50.3	■	■	■	■	■	■	■	■	■		
1.2312	60.3	■	■	■	■	■	■	■	■	■	■	
1.2311	80.3	■	■	■	■	■	■	■	■	■	■	■
1.2311	100.3	■	■	■	■	■	■	■	■	■	■	■
1.2294	125.3	■	■	■	■	■	■	■	■	■	■	■
1.2294	150.3	■	■	■	■	■	■	■	■	■	■	■
1.2210	200.3	■	■	■	■	■	■	■	■	■	■	■
1.2210	250.3	■	■	■	■	■	■	■	■	■	■	■
1.2162	300.3	■	■	■	■	■	■	■	■	■	■	■
1.2162												
1.2099												
1.2099												

**Tolerances****Standard values (BS 1.2085)**

Delivery condition: maximum 330 HB

Chemical composition:

C	Si	Mn	P	S	Cr	Ni
0.28	0	0	0	0.05	15.0	0
0.38	1.0	1.4	0.03	0.1	17.0	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/2085-3

*** Note:** BS 1.2085 will be delivered in tempered condition (approx. 33 HRC). Therefore it can be easily substituted with BS 1.2099.

If a higher working hardness is needed, please contact us!

**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 BS 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.

**BS 1.2085 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2085

via smartphone/tablet:

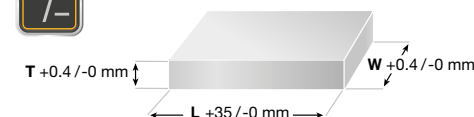


PREMIUM 1.2085/1.2099 – BS 1.2085/1.2099 – AISI / SAE 420FM/1.2099 (X33CrS16/~X5CrS12)

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 [mm]									
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 (BS 1.2085)**Delivery condition: maximum 330 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni
0.28	0	0	0	0.05	15.0	0
0.38	1.0	1.4	0.03	0.1	17.0	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/2085-4**BS 1.2085 – all at a glance!**Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2085

via smartphone/tablet:

**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 BS 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.

NAVIGATION/
STEEL GRADES1.2343
BH 111.2343 ESU
BH 11 ESR1.2316
1.23161.2312
1.23121.2311
1.23111.2294
1.22941.2210
1.22101.2162
1.21621.2099
1.20991.2085
1.20851.2083
1.20831.2083 ESU
1.2083 ESR1.2080 mod.
BD 31.2067
BL 3/BL 11.1730
1.17301.0570
1.0570Toolox 33
Toolox 33Toolox 44
Toolox 44

PREMIUM 1.2085/1.2099 – BS 1.2085/1.2099 – AISI / SAE 420FM/1.2099 (X33CrS16/~X5CrS12)

€co-Präz® 500 [€co]

Length: 500 mm

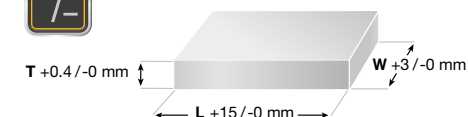
	THICKNESS [mm]																	
	2.3	3.3	4.3	5.3	6.3	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	
WIDTH	Available dimensions [mm]																	
33	■	■	■	■	■	■	■	■	■	■	■	■						
43	■	■	■	■	■	■	■	■	■	■	■	■	■					
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
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 with good machinability. Resistant to aggressive plastics and humid conditions. Because of the added sulphur it is easier to machine than steel grade BS 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.

**Tolerances****Standard values (BS 1.2085)**

Delivery condition: maximum 330 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni
0.28	0	0	0	0.05	15.0	0
0.38	1.0	1.4	0.03	0.1	17.0	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2085-5

**BS 1.2085 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2085

via smartphone/tablet:



PREMIUM 1.2085/1.2099 – BS 1.2085/1.2099 – AISI / SAE 420FM/1.2099 (X33CrS16/~X5CrS12)

Precision round steel with machining allowance [PRS/BA]

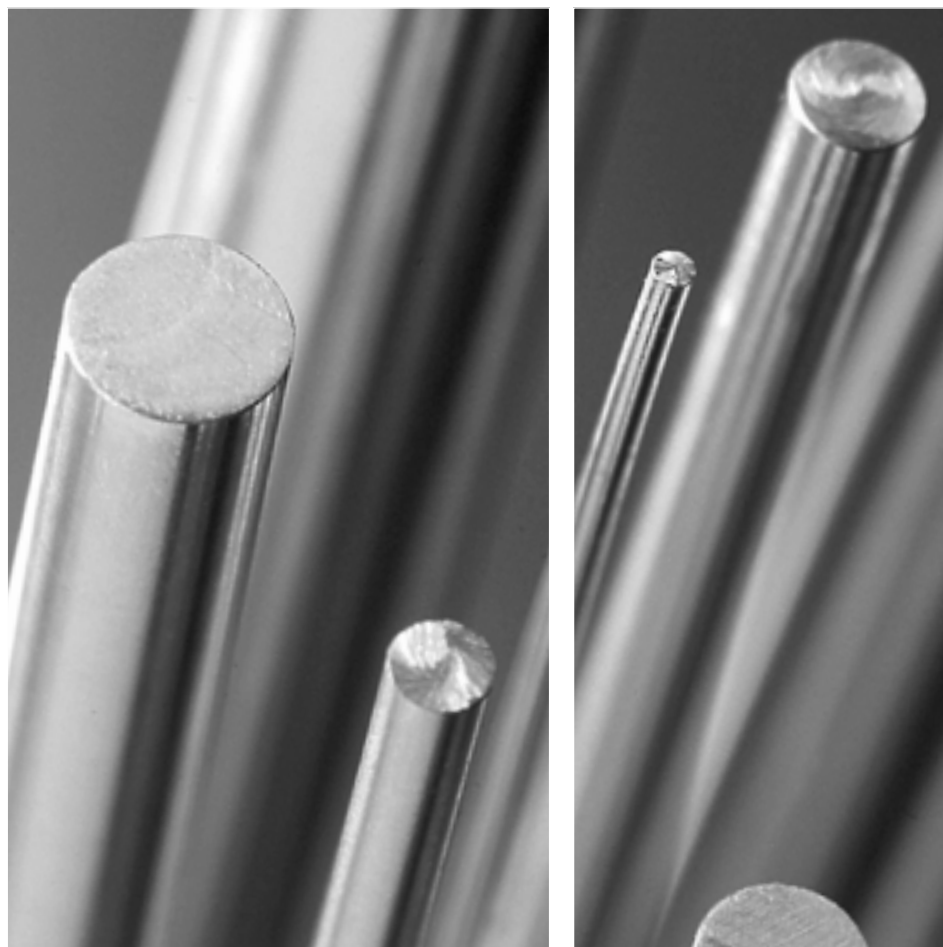
Specification: peeled / rough-turned

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:** BS 1.2085 will be delivered in tempered condition (approx. 33 HRC). Therefore it can be easily substituted with BS 1.2099.

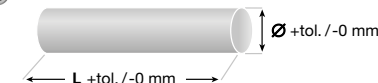
If a higher working hardness is needed, please contact us!

**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 BS 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.

**Tolerances****Standard values (BS 1.2085)**

Delivery condition: maximum 330 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni
0.28	0	0	0	0.05	15.0	0
0.38	1.0	1.4	0.03	0.1	17.0	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2085-7

**BS 1.2085 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2085

via smartphone/tablet:

NAVIGATION/
STEEL GRADES1.2343
BH 111.2343 ESU
BH 11 ESR1.2316
1.23161.2312
1.23121.2311
1.23111.2294
1.22941.2210
1.22101.2162
1.21621.2099
1.20991.2085
1.20851.2083
1.20831.2083 ESU
1.2083 ESR1.2080 mod.
BD 31.2067
BL 3/BL 11.1730
1.17301.0570
1.0570Toolox 33
Toolox 33Toolox 44
Toolox 44

PREMIUM 1.2083 – BS 1.2083 – AISI / SAE ~420 (X40Cr14)

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 [mm]															
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

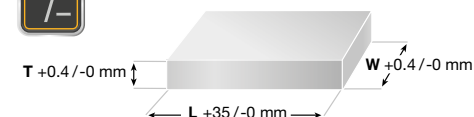
**Technical properties**

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	0	0	0	12.5
0.42	1.0	1.0	0.03	0.03	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2083-4

**BS 1.2083 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2083

via smartphone / tablet:



PREMIUM 1.2083 – BS 1.2083 – AISI / SAE ~420 (X40Cr14)

Eco-Präz® 500 [€co]

Length: 500 mm

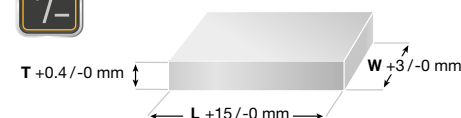
	THICKNESS [mm]													
	2.3	3.3	4.3	5.3	6.3	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3
WIDTH	Available dimensions [mm]													
33	■	■	■	■	■	■	■	■	■	■	■	■	■	■
43	■	■	■	■	■	■	■	■	■	■	■	■	■	■
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■
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	0	0	0	12.5
0.42	1.0	1.0	0.03	0.03	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/2083-5**BS 1.2083 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2083

via smartphone/tablet:

NAVIGATION/
STEEL GRADES1.2343
BH 111.2343 ESU
BH 11 ESR1.2316
1.23161.2312
1.23121.2311
1.23111.2294
1.22941.2210
1.22101.2162
1.21621.2099
1.20991.2085
1.20851.2083
1.20831.2083 ESU
1.2083 ESR1.2080 mod.
BD 31.2067
BL 3/BL 11.1730
1.17301.0570
1.0570Toolox 33
Toolox 33Toolox 44
Toolox 44

PREMIUM 1.2083 – BS 1.2083 – AISI / SAE ~420 (X40Cr14)**Hart-Präz® 250 [Hart]**

Length: 250 mm

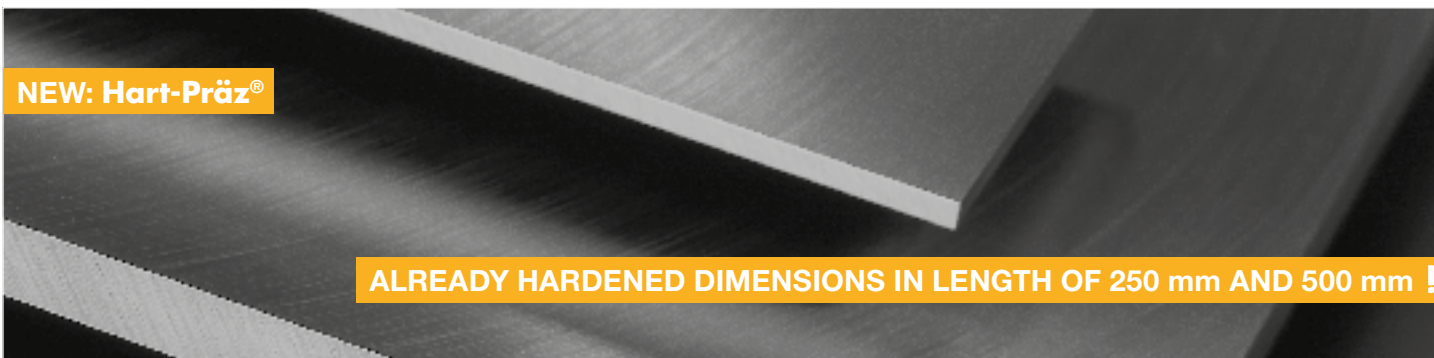
	THICKNESS [mm]												
	2.2	2.7	3.2	3.7	4.2	4.7	5.2	6.2	7.2	8.2	9.2	10.2	12.2
WIDTH	Available dimensions [mm]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

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 [mm]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

Hardened dimensions are delivered with approx. 50 HRC, at least 2x tempered.

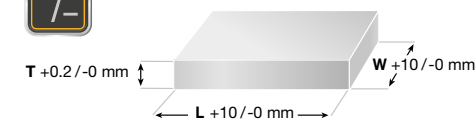
**NEW: Hart-Präz®****ALREADY HARDENED DIMENSIONS IN LENGTH OF 250 mm AND 500 mm !****Technical properties**

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	0	0	0	12.5
0.42	1.0	1.0	0.03	0.03	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**
www.premium-steel.co.uk/2083-11-H
**BS 1.2083 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2083

via smartphone/tablet:



PREMIUM 1.2083 – BS 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		•

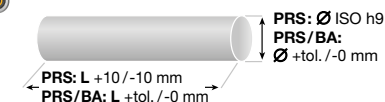
Larger diameters, up to 400.5 mm, and different lengths (e.g. round blanks) available on request!

**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	0	0	0	12.5
0.42	1.0	1.0	0.03	0.03	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**

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

www.premium-steel.co.uk/2083-6
[PRS/BA]
www.premium-steel.co.uk/2083-7

**BS 1.2083 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2083

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

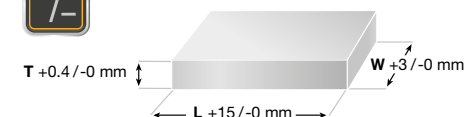
Toolox 44
Toolox 44

PREMIUM 1.2083 ESU – BS 1.2083 ESR – AISI / SAE 420 ESR (X40Cr14)

€co-Präz® 300 [€co]

Length: 300 mm

	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
WIDTH	Available dimensions [mm]															
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	0	0	0	12.5
0.42	1.0	1.0	0.03	0.03	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2083ESR-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.

**BS 1.2083 ESR – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2083ESR

via smartphone/tablet:

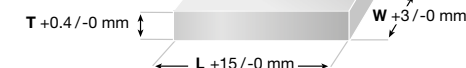


PREMIUM 1.2083 ESU – BS 1.2083 ESR – AISI / SAE 420 ESR (X40Cr14)

Eco-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]															
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	0	0	0	12.5
0.42	1.0	1.0	0.03	0.03	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/2083ESR-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.

**BS 1.2083 ESR – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.2083ESR

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44



365 DAYS A YEAR – WE ARE HERE FOR YOU – VISIT OUR ONLINE SHOP AT WWW.PREMIUM-STEEL.CO.UK

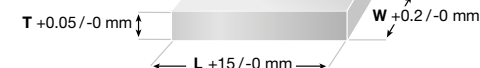
ABRAMS![®]
PREMIUM STEEL

PREMIUM 1.2080 MOD. – BS BD 3 MOD. – AISI / SAE D3 MOD. (~X210Cr12)

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 [mm]									
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	0.1	0.2	0	0	11.0	≤
2.2	0.6	0.6	0.03	0.03	13.0	0.8

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/BD3mod-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.

**BS BD 3 mod. – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD3mod


via smartphone/tablet:

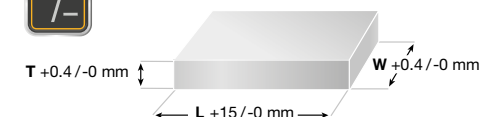
NAVIGATION/
STEEL GRADES1.2343
BH 111.2343 ESU
BH 11 ESR1.2316
1.23161.2312
1.23121.2311
1.23111.2294
1.22941.2210
1.22101.2162
1.21621.2099
1.20991.2085
1.20851.2083
1.20831.2083 ESU
1.2083 ESR1.2080 mod.
BD 31.2067
BL 3/BL 11.1730
1.17301.0570
1.0570Toolox 33
Toolox 33Toolox 44
Toolox 44

PREMIUM 1.2080 mod. – BS BD 3 mod. – AISI / SAE D3 mod. (~X210Cr12)

Precision flat steel with machining allowance [PFS/BA]

Length: 500 mm

	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	
WIDTH	Available dimensions [mm]														
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	0.1	0.2	0	0	11.0	≤
2.2	0.6	0.6	0.03	0.03	13.0	0.8

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BD3mod-3

**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.

**BS BD 3 mod. – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD3mod


via smartphone / tablet:



PREMIUM 1.2080 mod. – BS BD 3 mod. – AISI / SAE D3 mod. (~X210Cr12)

Precision flat steel with machining allowance [PFS/BA]

Length: 1,000 mm

	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	
WIDTH	Available dimensions [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	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
63.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
80.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
100.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
125.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
150.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
160.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
175.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
200.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
250.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
300.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
315.3	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

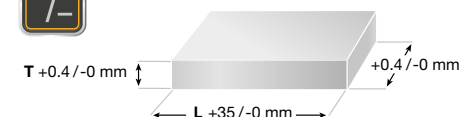
**Technical properties**

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: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	W
1.9	0.1	0.2	0	0	11.0	≤
2.2	0.6	0.6	0.03	0.03	13.0	0.8

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BD3mod-4

**BS BD 3 mod. – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD3mod

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44

PREMIUM 1.2080 mod. – BS BD 3 mod. – AISI / SAE D3 mod. (~X210Cr12)**Hart-Präz® 250 [Hart]**

Length: 250 mm

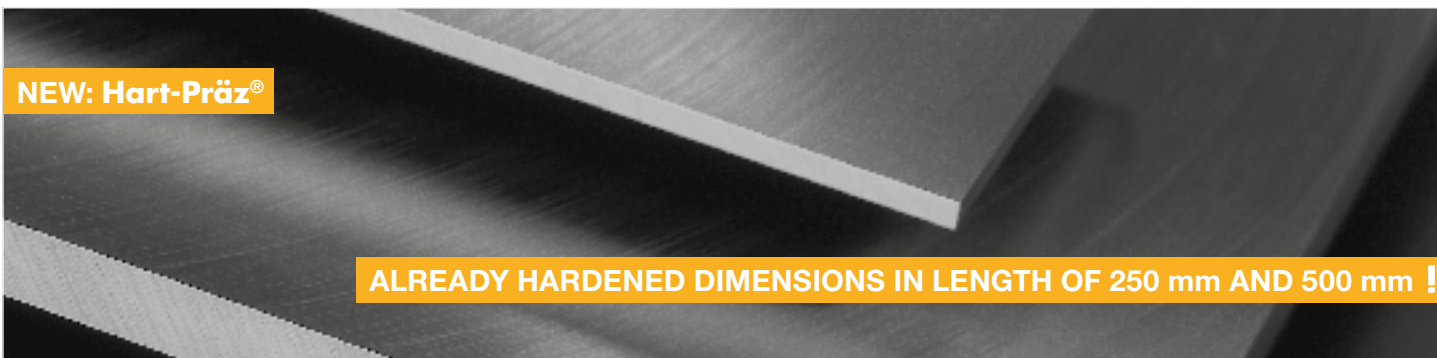
	THICKNESS [mm]												
	2.2	2.7	3.2	3.7	4.2	4.7	5.2	6.2	7.2	8.2	9.2	10.2	12.2
WIDTH	Available dimensions [mm]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

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 [mm]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

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

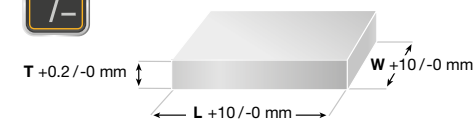
**Technical properties**

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	0.1	0.2	0	0	11.0	≤
2.2	0.6	0.6	0.03	0.03	13.0	0.8

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/BD3mod-11-H**BS BD 3 mod. – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD3mod

via smartphone/tablet:



PREMIUM 1.2080 mod. – BS BD 3 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
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!



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.

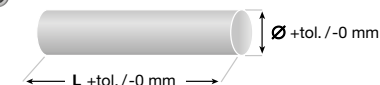


Applications

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: maximum 255 HB
Chemical composition:

C	Si	Mn	P	S	Cr	W
1.9	0.1	0.2	0	0	11.0	≤
2.2	0.6	0.6	0.03	0.03	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk



Direct access to our online shop

www.premium-steel.co.uk/BD3mod-7



BS BD 3 mod. – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BD3mod

via smartphone/tablet:



NAVIGATION/ STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44

PREMIUM 1.2067/1.3505 – BS BL 3/BL 1 – AISI / SAE L3/L1 (102Cr6/100Cr6)

€co-Präz® 500 [€co]

Length: 500 mm

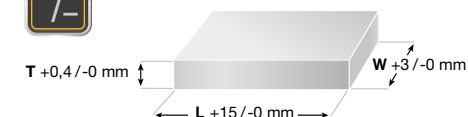
	THICKNESS [mm]																			
	2.3	3.3	4.3	5.3	6.3	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3
WIDTH	Available dimensions [mm]																			
33	■	■	■	■	■	■	■	■	■	■	■	■								
43	■	■	■	■	■	■	■	■	■	■	■	■	■							
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■						
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
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**

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 BS BL 1 (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).

**Tolerances****Standard values (BL 3/BL 1)**

Delivery condition: maximum 223 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0.95	0.15	0.2	0	0	1.35	0	0
1.1	0.35	0.4	0.025	0.025	1.6	0.1	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BL3-5

**BS BL 3 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BL3

via smartphone/tablet:



PREMIUM 1.2067/1.3505 – BS BL 3/BL 1 – AISI / SAE L3/L1 (102Cr6/100Cr6)

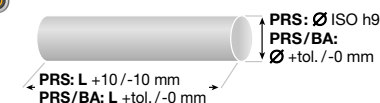
Precision round steel without machining allowance [PRS]
Specification: bright drawn/ground, ISO h9

	LENGTH [mm]
	1,000
Ø [mm]	Available dimensions [•]
8.0	•
10.0	•
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

	LENGTH [mm]
	1,000
Ø [mm]	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 (BL 3/BL 1)**

Delivery condition: maximum 223 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0,95	0,15	0,2	0	0	1,35	0	0
1,1	0,35	0,4	0,025	0,025	1,6	0,1	0,4

**If you need customised dimensions -**

Any dimension available in different lengths (e.g. round blanks).

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

www.premium-steel.co.uk/BL3-6

[PRS/BA]

www.premium-steel.co.uk/BL3-7

**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 BS BL 1 (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).

**BS BL 3 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BL3

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44

PREMIUM 1.1730 – BS 1.1730 – AISI / SAE 1045 (C45U)

Precision flat steel without machining allowance [PFS]

Length: 500 mm

	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	
WIDTH	Available dimensions [mm]																					
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 *					■	■	■		■	■	■	■	■	■	■	■	■	■	■			

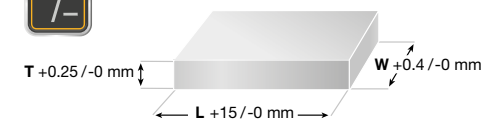
* Width and length sawn/raw with +tol./-0 mm

**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	0.15	0.6	0	0
0.5	0.4	0.8	0.03	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/1.1730-1

**BS 1.1730 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.1730

via smartphone/tablet:



PREMIUM 1.1730 – BS 1.1730 – AISI / SAE 1045 (C45U)

Precision flat steel without machining allowance [PFS]

Length: 1,000 mm

		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			
WIDTH	Available dimensions [mm]																								
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 *						■	■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

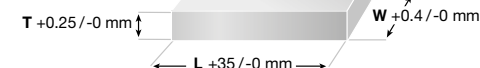
* Width and length sawn/raw with +tol./-0 mm

**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	0.15	0.6	0	0
0.5	0.4	0.8	0.03	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**
www.premium-steel.co.uk/1730-2
**BS 1.1730 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.1730

via smartphone/tablet:

NAVIGATION/
STEEL GRADES1.2343
BH 111.2343 ESU
BH 11 ESR1.2316
1.23161.2312
1.23121.2311
1.23111.2294
1.22941.2210
1.22101.2162
1.21621.2099
1.20991.2085
1.20851.2083
1.20831.2083 ESU
1.2083 ESR1.2080 mod.
BD 31.2067
BL 3/BL 11.1730
1.17301.0570
1.0570Toolox 33
Toolox 33Toolox 44
Toolox 44



SHARPLY CALCULATED PRICES FOR PREMIUM-CUSTOMERS!

ABRAMS![®]
PREMIUM STEEL

PREMIUM 1.1730 – BS 1.1730 – AISI / SAE 1045 (C45U)

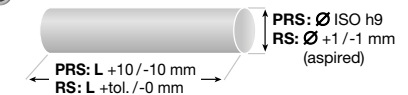
Precision round steel without machining allowance [PRS]
Specification: bright drawn/ground, ISO h9

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	0.15	0.6	0	0
0.5	0.4	0.8	0.03	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**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

www.premium-steel.co.uk/1730-6

[RS]

www.premium-steel.co.uk/1730-8

**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.

**BS 1.1730 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.1730

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44

PREMIUM 1.0570 – BS 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 [mm]																		
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 *					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

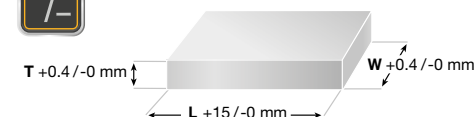
* Width and length sawn/raw with +tol./-0 mm

**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	0	0	0
0.22	0.55	1.6	0.035	0.035

**If you need customised dimensions -**

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

**Contact us**

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/0570-3

**BS 1.0570 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.0570

via smartphone/tablet:



PREMIUM 1.0570 – BS 1.0570 – AISI / SAE 1.0570 (St 52-3/-S355J2+N)

Precision flat steel with machining allowance [PFS/BA]

Length: 1,000 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 [mm]																			
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 *				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	

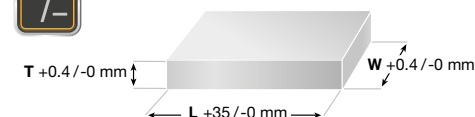
* Width and length sawn/raw with +tol./-0 mm

**Technical properties**

Unalloyed structural steel with good machinability and dimensional stability, high toughness and good weldability because of its low carbon content ($C \leq 0,22\%$). 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 -	0 -	0 -	0 -
0.22	0.55	1.6	0.035	0.035

**If you need customised dimensions -**

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

**Contact us**

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/0570-4

**BS 1.0570 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.0570

via smartphone/tablet:

NAVIGATION/
STEEL GRADES1.2343
BH 111.2343 ESU
BH 11 ESR1.2316
1.23161.2312
1.23121.2311
1.23111.2294
1.22941.2210
1.22101.2162
1.21621.2099
1.20991.2085
1.20851.2083
1.20831.2083 ESU
1.2083 ESR1.2080 mod.
BD 31.2067
BL 3/BL 11.1730
1.17301.0570
1.0570Toolox 33
Toolox 33Toolox 44
Toolox 44



PIONEERING !

PREMIUM 1.0570 – BS 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		•

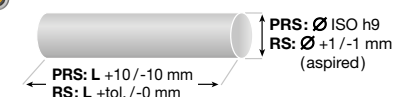
Larger diameters, up to 750 mm and different lengths (partly peeled/rough-turned) on request!

**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 lengths (e.g. round blanks).
On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

www.premium-steel.co.uk/0570-6
[RS]

www.premium-steel.co.uk/0570-8

**BS 1.0570 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.0570

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

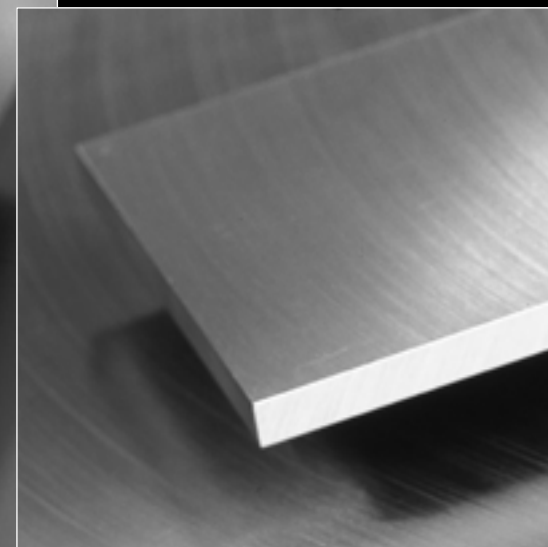
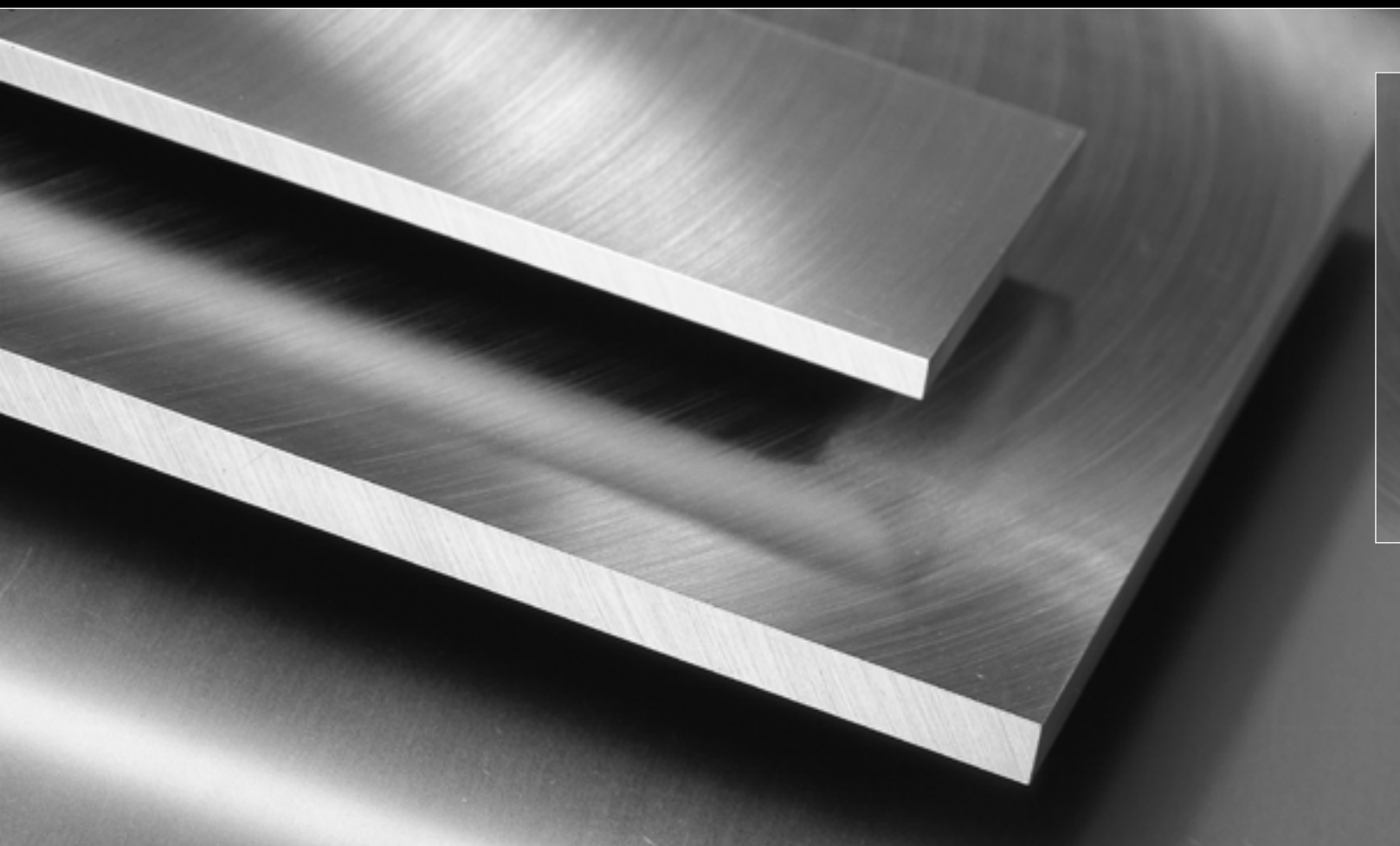
1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44



MAXIMUM FLEXIBILITY – THAT IS OUR **eco-Präz**®

ABRAMS!®
PREMIUM STEEL

PREMIUM Toolox 33 – BS 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 [mm]											
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).

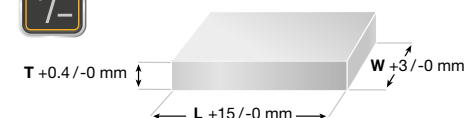


Applications

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	0.6	0.8	0	0	1.0	0.3	0	0.1
0.24	1.1	0.8	0.01	0.003	1.2	0.3	1.0	0.11



If you need customised dimensions -

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



Contact us

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk



Direct access to our online shop

www.premium-steel.co.uk/T33-5



BS Toolox 33 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/T33

via smartphone/tablet:



NAVIGATION/ STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

1.0570
1.0570

Toolox 33
Toolox 33

Toolox 44
Toolox 44

PREMIUM Toolox 44 – BS Toolox 44 – AISI / SAE Toolox 44 (Toolox 44)

€co-Präz® 500 [€co]

Length: 500 mm

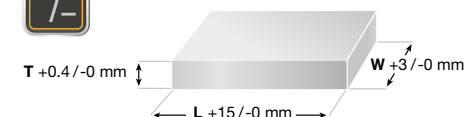
		THICKNESS [mm]											
		4.3	5.3	6.3	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3
WIDTH		Available dimensions [mm]											
		33	43	53	63	73	83	93	103	123	143	153	163
1.2343	BH 11	■	■	■	■	■	■	■	■	■	■	■	■
1.2343 ESU	BH 11 ESR	■	■	■	■	■	■	■	■	■	■	■	■
1.2316		■	■	■	■	■	■	■	■	■	■	■	■
1.2312		■	■	■	■	■	■	■	■	■	■	■	■
1.2312		■	■	■	■	■	■	■	■	■	■	■	■
1.2311		■	■	■	■	■	■	■	■	■	■	■	■
1.2311		■	■	■	■	■	■	■	■	■	■	■	■
1.2294		■	■	■	■	■	■	■	■	■	■	■	■
1.2294		■	■	■	■	■	■	■	■	■	■	■	■
1.2210		■	■	■	■	■	■	■	■	■	■	■	■
1.2210		■	■	■	■	■	■	■	■	■	■	■	■
1.2162		■	■	■	■	■	■	■	■	■	■	■	■
1.2162		■	■	■	■	■	■	■	■	■	■	■	■
1.2099		■	■	■	■	■	■	■	■	■	■	■	■
1.2099		■	■	■	■	■	■	■	■	■	■	■	■
1.2085		■	■	■	■	■	■	■	■	■	■	■	■
1.2085		■	■	■	■	■	■	■	■	■	■	■	■
1.2083		■	■	■	■	■	■	■	■	■	■	■	■
1.2083		■	■	■	■	■	■	■	■	■	■	■	■
1.2083 ESU		■	■	■	■	■	■	■	■	■	■	■	■
1.2083 ESR		■	■	■	■	■	■	■	■	■	■	■	■
1.2080 mod.	BD 3	■	■	■	■	■	■	■	■	■	■	■	■
1.2067	BL 3/BL 1	■	■	■	■	■	■	■	■	■	■	■	■
1.1730		■	■	■	■	■	■	■	■	■	■	■	■
1.1730		■	■	■	■	■	■	■	■	■	■	■	■
1.0570		■	■	■	■	■	■	■	■	■	■	■	■
1.0570		■	■	■	■	■	■	■	■	■	■	■	■

**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, 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.

**Tolerances****Standard values**

Delivery condition: maximum 418 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V
0.32	0.6	0.8	0	0	1.35	0.8	0	0.14
0.32	1.1	0.8	0.01	0.003	1.35	0.8	1.0	0.14

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/T44-5

**BS Toolox 44 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/T44

via smartphone/tablet:



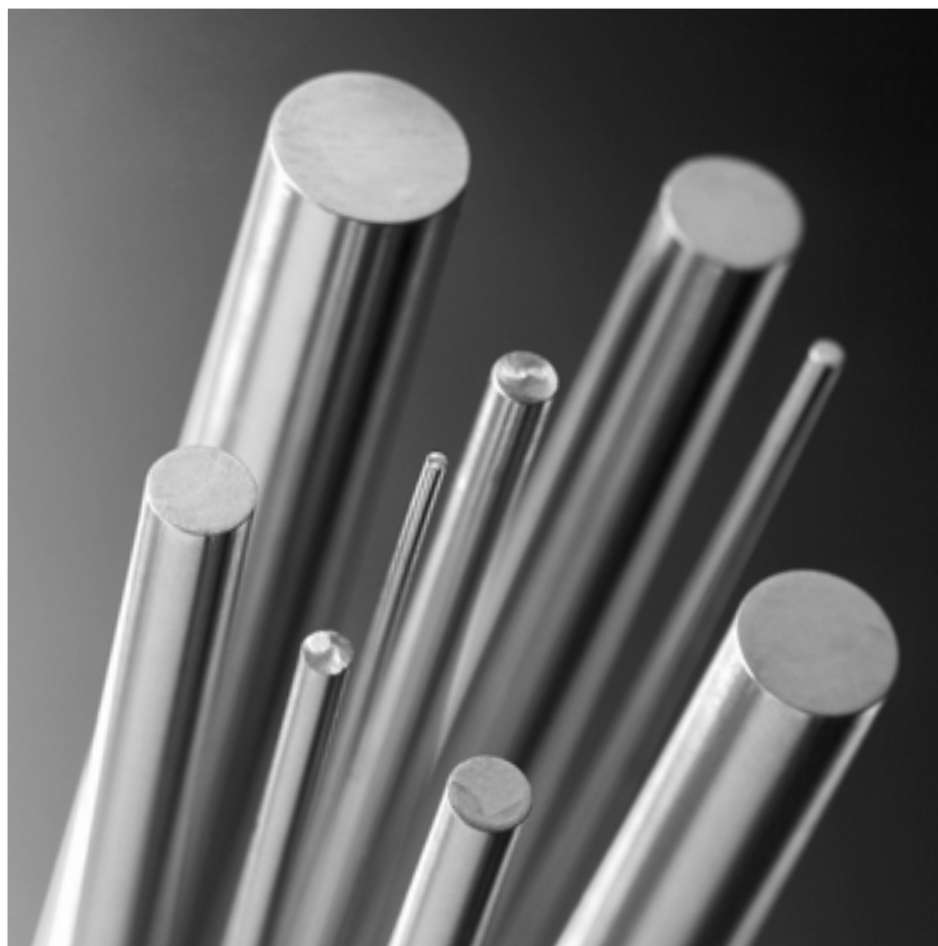
PREMIUM Toolox 44 – BS Toolox 44 – AISI / SAE Toolox 44 (Toolox 44)

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!



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).

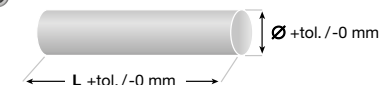


Applications

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.



Tolerances



Standard values

Delivery condition: maximum 418 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	V
0.32	0.6	0.8	0	0	1.35	0.8	0	0.14
0.32	1.1	0.8	0.01	0.003	1.35	0.8	1.0	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

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk



Direct access to our online shop

www.premium-steel.co.uk/T44-7



AISI / SAE Toolox 44 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/T44

via smartphone/tablet:



NAVIGATION/ STEEL GRADES

1.2343
BH 11

1.2343 ESU
BH 11 ESR

1.2316
1.2316

1.2312
1.2312

1.2311
1.2311

1.2294
1.2294

1.2210
1.2210

1.2162
1.2162

1.2099
1.2099

1.2085
1.2085

1.2083
1.2083

1.2083 ESU
1.2083 ESR

1.2080 mod.
BD 3

1.2067
BL 3/BL 1

1.1730
1.1730

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 – BS 1.1730: W** +0.4/-0 mm, **T** +0.25/-0 mm



Precision round steel without machining allowance [PRS]

- bright ground, tol.: Ø ISO h8, **L** +10/-10 mm
- bright drawn/finely peeled/ground, tol.: Ø ISO h9, **L** +10/-10 mm
- bright finely peeled, tol.: Ø 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.: Ø +tol./-0 mm, **L** +tol./-0 mm
- **Exception PREMIUM 1.3343 – BS BM 2**
L 1,000 mm, tol. **L** +10/-10 mm
- **Particularity: PREMIUM 1.2826 – BS 1.2826, PREMIUM 1.2360 – BS ~ Chipper /~ mod. PREMIUM 1.2067 – BS 1.2367:**
Ø are metric full values (for example 30.0 mm), therefore there is no basic machining allowance (for example 30.5 mm)



eco-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.: Ø +1/-1 mm (aspired), **L** +tol./-0 mm



Hart-Präz® [Hart]

For example: 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.co.uk/glossary



INNOVATIONS !



PREMIUM HSS 1.3343 – BS BM 2 – AISI / SAE M2 (HS6-5-2C)

Eco-Präz® 500 [€co]

Length: 500 mm

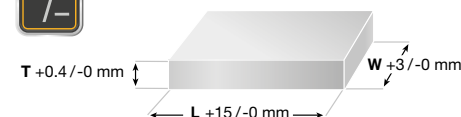
	THICKNESS [mm]																
	2.3	3.3	4.3	5.3	6.3	8.3	10.3	12.3	15.3	16.3	20.3	25.3	30.3	35.3	40.3	45.3	50.3
WIDTH	Available dimensions [mm]																
33	■	■	■	■	■	■	■	■	■	■	■	■	■				
43	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
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**

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.

**Tolerances****Standard values**

Delivery condition: maximum 270 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V	W
0.86	0	0	0	0	3.8	4.7	1.7	5.9
0.94	0.45	0.4	0.03	0.03	4.5	5.2	2.1	6.7

**If you need customised dimensions -**

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

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BM2-5

**BS BM 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BM2

via smartphone/tablet:



ABRAMS®

TOOL STEEL I

TOOL STEEL II

HIGH SPEED STEEL

STAINLESS STEEL
corrosion resistant / acid resistant

HEAT-TREATABLE STEEL,
CASE HARDENING- &
NITRIDING STEEL

INFORMATION



ABRAMS PREMIUM STEEL® – QUALITY THAT WILL IMPRESS YOU!

ABRAMS!
PREMIUM STEEL

PREMIUM HSS 1.3343 – BS BM 2 – 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	•	•

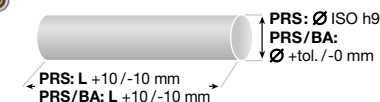
Larger diameters, up to 300.5 mm, and different lengths (e.g. round blanks) available on request!

**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.

**Tolerances****Standard values**

Delivery condition: maximum 270 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V	W
0.86	0	0	0	0	3.8	4.7	1.7	5.9
0.94	0.45	0.4	0.03	0.03	4.5	5.2	2.1	6.7

**If you need customised dimensions -**

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

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop****[PRS]**www.premium-steel.co.uk/BM2-6**[PRS/BA]**www.premium-steel.co.uk/BM2-7**BS BM 2 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BM2

via smartphone / tablet:





USE UP TO 40% LESS MATERIAL = LESS WASTE – THAT IS OUR **€co-Präz®!**

ABRAMS!
PREMIUM STEEL

PREMIUM HSS PM 30 – BS PM30 – AISI / SAE PM30 (PMHS6-5-3-8)

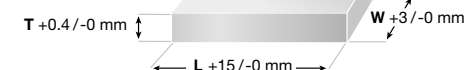
€co-Präz® 300 [€co]

Length: 300 mm

	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
WIDTH	Available dimensions [mm]															
	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	4.2	5.0	3.1	6.4	8.5
1.3	4.2	5.0	3.1	6.4	8.5



If you need customised dimensions -

Any dimension available in different heights, widths and lengths.

On request - according to your needs!



Contact us

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk



Direct access to our online shop

www.premium-steel.co.uk/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.



BS PM 30 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/PM30

via smartphone/tablet:

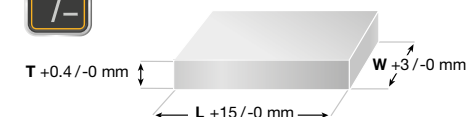


PREMIUM HSS PM 23 – BS BM 3 – AISI / SAE M3 (PMHS6-5-3)

€co-Präz® 300 [€co]

Length: 300 mm

	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
WIDTH	Available dimensions [mm]															
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	0	0	0	0	3.8	4.7	2.7	5.9
1.25	0.45	0.4	0.03	0.03	4.5	5.2	3.2	6.7

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/BM3-5

**Technical properties**

High speed steel based on powder metallurgy. Similar to BS BM 2, 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.

**BS BM 3 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BM3


via smartphone / tablet:



PREMIUM HSS PM 4 – BS BM 4 – AISI / SAE M4 (PMHS6-5-4)

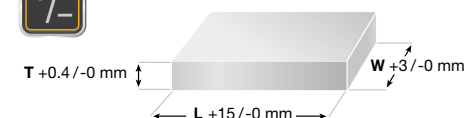
€co-Präz® 300 [€co]

Length: 300 mm

	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
WIDTH	Available dimensions [mm]															
	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	0	0	0	0	3.8	4.2	3.7	5.2
1.4	0.45	0.4	0.03	0.03	4.5	5.0	4.2	6.0



If you need customised dimensions -

Any dimension available in different heights, widths and lengths.

On request - according to your needs!



Contact us

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk



Direct access to our online shop

www.premium-steel.co.uk/BM4-5



Technical properties

High speed steel based on powder metallurgy with better wear and pressure resistance than BS BM 3 and BS BM 2, 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.



BS BM 4 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/BM4

via smartphone/tablet:



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 – BS 1.1730:** **W** +0.4/-0 mm, **T** +0.25/-0 mm



Precision round steel without machining allowance [PRS]

- bright ground, tol.: Ø ISO h8, **L** +10/-10 mm
- bright drawn/finely peeled/ground, tol.: Ø ISO h9, **L** +10/-10 mm
- bright finely peeled, tol.: Ø 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.: Ø +tol./-0 mm, **L** +tol./-0 mm
- **Exception PREMIUM 1.3343 – BS BM 2**
L 1,000 mm, tol. **L** +10/-10 mm
- **Particularity: PREMIUM 1.2826 – BS 1.2826, PREMIUM 1.2360 – BS ~ Chipper /~ mod. PREMIUM 1.2067 – BS 1.2367:**
Ø are metric full values (for example 30.0 mm), therefore there is no basic machining allowance (for example 30.5 mm)



Eco-Präz® [Eco]

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



Hart-Präz® [Hart]

For example: 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.co.uk/glossary





EXCELLENT CHEMICAL RESISTANCE EVEN AT HIGH TEMPERATURES OF UP TO 1100°C – BS 314 S 25!

ABRAMS!
PREMIUM STEEL

PREMIUM 1.4841 – BS 314 S 25 – AISI / SAE 314 (X15CrNiSi25-21)

Eco-Präz® 500 [€co]

Length: 500 mm

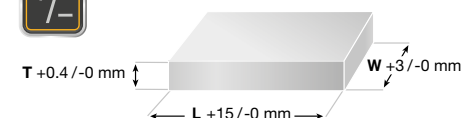
	THICKNESS [mm]															
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3	140.3
WIDTH	Available dimensions [mm]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

**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.

**Tolerances****Standard values**

Delivery condition: maximum 223 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni	N
0	1.5	0	0	0	24.0	19.0	0
0.2	2.5	2.0	0.045	0.015	26.0	22.0	0.11

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/314S25-5

**BS 314 S 25, all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/314S25

via smartphone/tablet:

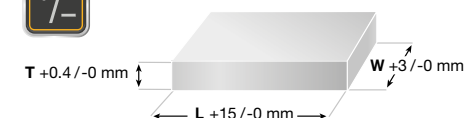
1.4841
314 S 251.4571
320 S 311.4418
1.44181.4404/1.4401
316L/3161.4305
303 S 311.4301
304 S 151.4125
440C1.4122
1.41221.4112
1.41121.4104
1.41041.4057
431 S 291.4034
1.40341.4031
420 S 451.4021
420 S 291.4006
410 S 21

PREMIUM 1.4571 – BS 320 S 31 – AISI / SAE 316Ti (X6CrNiMoTi17-12-2)

€co-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]															
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	0	0	0	16.5	2.0	10.5	0
0.08	1.0	2.0	0.045	0.015	18.5	2.5	13.5	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/320S31-5

**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.

**BS 320 S 31 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/320S31

via smartphone/tablet:



PREMIUM 1.4571 – BS 320 S 31 – AISI / SAE 316Ti (X6CrNiMoTi17-12-2)

Precision round steel without machining allowance [PRS]

Specification: bright drawn/ground, ISO h9

	LENGTH [mm]
	1,000
Ø [mm]	Available dimensions [•]
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.

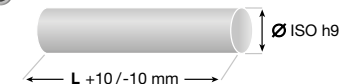
**Technical properties**

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.

**Tolerances****Standard values**

Delivery condition: maximum 215 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	Ti
0	0	0	0	0	16.5	2.0	10.5	0
0.08	1.0	2.0	0.045	0.015	18.5	2.5	13.5	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**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/320S31-6

**BS 320 S 31 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/320S31

via smartphone/tablet:



ABRAMS®

TOOL STEEL I

TOOL STEEL II

HIGH SPEED STEEL

STAINLESS STEEL
corrosion resistant / acid resistant

**HEAT-TREATABLE STEEL,
CASE HARDENING- &
NITRIDING STEEL**

INFORMATION



365 DAYS A YEAR – WE ARE HERE FOR YOU – VISIT OUR ONLINE SHOP AT WWW.PREMIUM-STEEL.CO.UK

ABRAMS!
PREMIUM STEEL

PREMIUM 1.4418 – BS 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		•

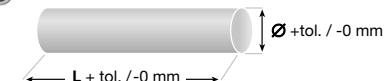
Larger diameters, up to 200 mm, and different lengths (e.g. round blanks) available on request!

**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.

**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!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/4418-7**BS 1.4418 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.4418

via smartphone / tablet:

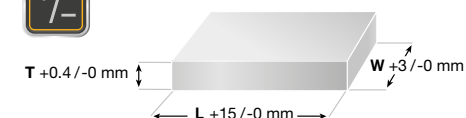
NAVIGATION/
STEEL GRADES1.4841
314 S 251.4571
320 S 31**1.4418**
1.44181.4404/1.4401
316L/3161.4305
303 S 311.4301
304 S 151.4125
440C1.4122
1.41221.4112
1.41121.4104
1.41041.4057
431 S 291.4034
1.40341.4031
420 S 451.4021
420 S 291.4006
410 S 21

PREMIUM 1.4404/1.4401 – BS 316L/BS 316 – AISI / SAE 316L/316 (X2CrNiMo17-12-2/X5CrNiMo17-12-2)

€co-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

**Tolerances****Standard values (BS 316L)**

Delivery condition: maximum 215 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	N
0	0	0	0	0.015	16.5	2.0	10.0	0
0.03	1.0	2.0	0.04	0.03	18.5	2.50	13.0	0.10

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/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. 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.

**BS 316L/BS 316 – all at a glance!**

Datasheets, online shop, ABRAMS STEEL GUIDE® for alternatives: www.premium-steel.co.uk/316L


via smartphone / tablet:



PREMIUM 1.4404/1.4401 – BS 316L/BS 316 – AISI / SAE 316L/316 (X2CrNiMo17-12-2/X5CrNiMo17-12-2)

Precision round steel without machining allowance [PRS]

Specification: bright drawn/ground, ISO h9

	LENGTH [mm]	
	1,000	
Ø [mm]	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.



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.
Working hardness: approx. 215 HB (delivery condition).

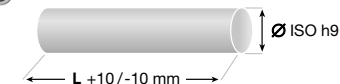


Applications

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.



Tolerances



Standard values (BS 316L)

Delivery condition: maximum 215 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni	N
0	0	0	0	0.015	16.5	2.0	10.0	0
0.03	1.0	2.0	0.04	0.03	18.5	2.50	13.0	0.10



If you need customised dimensions -

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



Contact us

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk



Direct access to our online shop

www.premium-steel.co.uk/316L-6



BS 316L/BS 316 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/316L

via smartphone/tablet:

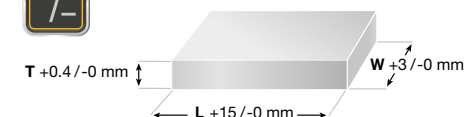


PREMIUM 1.4305 – BS 303 S 31 – AISI / SAE 303 (X8CrNiS18-9)

€co-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]															
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	0	0	0.15	17.0	8.0	0	0
0.1	1.0	2.0	0.045	0.35	19.0	10.0	1.0	0.11

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/303S31-5

**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.

**BS 303 S 31 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/303S31

via smartphone / tablet:



PREMIUM 1.4305 – BS 303 S 31 – AISI / SAE 303 (X8CrNiS18-9)

Precision round steel without machining allowance [PRS]

Specification: bright drawn / ground, ISO h9

Ø [mm]	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).

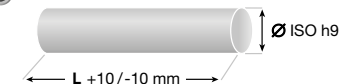


Applications

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	0	0	0.15	17.0	8.0	0	0
0.1	1.0	2.0	0.045	0.35	19.0	10.0	1.0	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk



Direct access to our online shop

www.premium-steel.co.uk/303S31-6



BS 303 S 31 – all at a glance!

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/303S31

via smartphone / tablet:



1.4841
314 S 25

1.4571
320 S 31

1.4418
1.4418

1.4404/1.4401
316L/316

1.4305
303 S 31

1.4301
304 S 15

1.4125
440C

1.4122
1.4122

1.4112
1.4112

1.4104
1.4104

1.4057
431 S 29

1.4034
1.4034

1.4031
420 S 45

1.4021
420 S 29

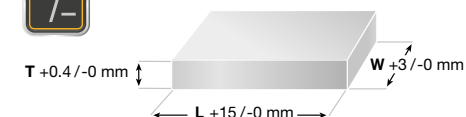
1.4006
410 S 21

PREMIUM 1.4301 – BS 304 S 15 – AISI /SAE 304 (X5CrNi18-10)

€co-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]															
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	0	0	0	17.5	8.0	0
0.07	1.0	2.0	0.045	0.015	19.5	10.5	0.11

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/304S15-5

**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.

**BS 304 S 15 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/304S15

via smartphone / tablet:



PREMIUM 1.4301 – BS 304 S 15 – AISI /SAE 304 (X5CrNi18-10)

Precision round steel without machining allowance [PRS]

Specification: bright drawn/ground, ISO h9

Ø [mm]	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	•	
»		

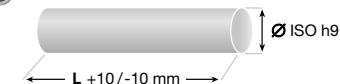
Further diameters on request.

**Technical properties**

Corrosion resistant austenitic stainless chrome-nickel-steel with 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.

**Tolerances****Standard values**

Delivery condition: maximum 215 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni	N
0	0	0	0	0	17.5	8.0	0
0.07	1.0	2.0	0.045	0.015	19.5	10.5	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/304S15-6

**BS 304 S 15 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/304S15

via smartphone/tablet:



1.4841
314 S 25

1.4571
320 S 31

1.4418
1.4418

1.4404/1.4401
316L/316

1.4305
303 S 31

1.4301
304 S 15

1.4125
440C

1.4122
1.4122

1.4112
1.4112

1.4104
1.4104

1.4057
431 S 29

1.4034
1.4034

1.4031
420 S 45

1.4021
420 S 29

1.4006
410 S 21

ABRAMS®

TOOL STEEL I

TOOL STEEL II

HIGH SPEED STEEL

STAINLESS STEEL
corrosion resistant / acid resistant

HEAT-TREATABLE STEEL,
CASE HARDENING- &
NITRIDING STEEL

INFORMATION

HIGHEST PRECISION !

ABRAMS!
PREMIUM STEEL

PREMIUM 1.4125 – BS 440C – AISI / SAE 440C (X105CrMo17)

Eco-Präz® 500 [€co]

Length: 500 mm

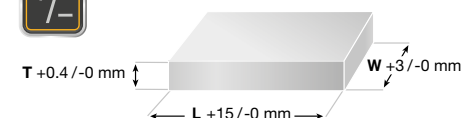
	THICKNESS [mm]															
	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3	120.3	140.3
WIDTH	Available dimensions [mm]															
33	■	■	■	■	■	■	■									
43	■	■	■	■	■	■	■	■								
53	■	■	■	■	■	■	■	■	■							
63	■	■	■	■	■	■	■	■	■	■						
73	■	■	■	■	■	■	■	■	■	■	■					
83	■	■	■	■	■	■	■	■	■	■	■	■				
93	■	■	■	■	■	■	■	■	■	■	■	■	■			
103	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
123	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
143	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
153	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
163	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
183	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
203	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
223	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
243	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
253	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
263	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
283	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
303	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

**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 BS 1.4112 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.

**Tolerances****Standard values**

Delivery condition: maximum 285 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0.95	0	0	0	0	16.0	0.4
1.20	1.0	1.0	0.04	0.015	18.0	0.8

**If you need customised dimensions -**

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

**Contact us**

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/440C-5

**BS 440 C – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/440C

via smartphone / tablet:

NAVIGATION/
STEEL GRADES

1.4841
314 S 25

1.4571
320 S 31

1.4418
1.4418

1.4404/1.4401
316L/316

1.4305
303 S 31

1.4301
304 S 15

1.4125
440C

1.4122
1.4122

1.4112
1.4112

1.4104
1.4104

1.4057
431 S 29

1.4034
1.4034

1.4031
420 S 45

1.4021
420 S 29

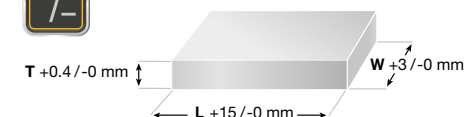
1.4006
410 S 21

PREMIUM 1.4122 – BS 1.4122 – AISI / SAE 1.4122 (X39CrMo17-1)

€co-Präz® 300 [€co]

Length: 300 mm

	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
WIDTH	Available dimensions [mm]															
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	0	0	0	15.5	0.8	0
0.45	1.0	1.5	0.045	0.03	17.5	1.3	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/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 (approx. on delivery) 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.

**BS 1.4122 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.4122

via smartphone/tablet:

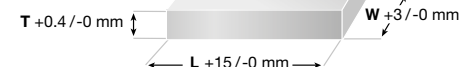


PREMIUM 1.4122 – BS 1.4122 – AISI / SAE 1.4122 (X39CrMo17-1)

Eco-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]															
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	0	0	0	15.5	0.8	0
0.45	1.0	1.5	0.045	0.03	17.5	1.3	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/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 (approx. on delivery) 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.

**BS 1.4122 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.4122

via smartphone / tablet:



1.4841
314 S 25

1.4571
320 S 31

1.4418
1.4418

1.4404/1.4401
316L/316

1.4305
303 S 31

1.4301
304 S 15

1.4125
440C

1.4122
1.4122

1.4112
1.4112

1.4104
1.4104

1.4057
431 S 29

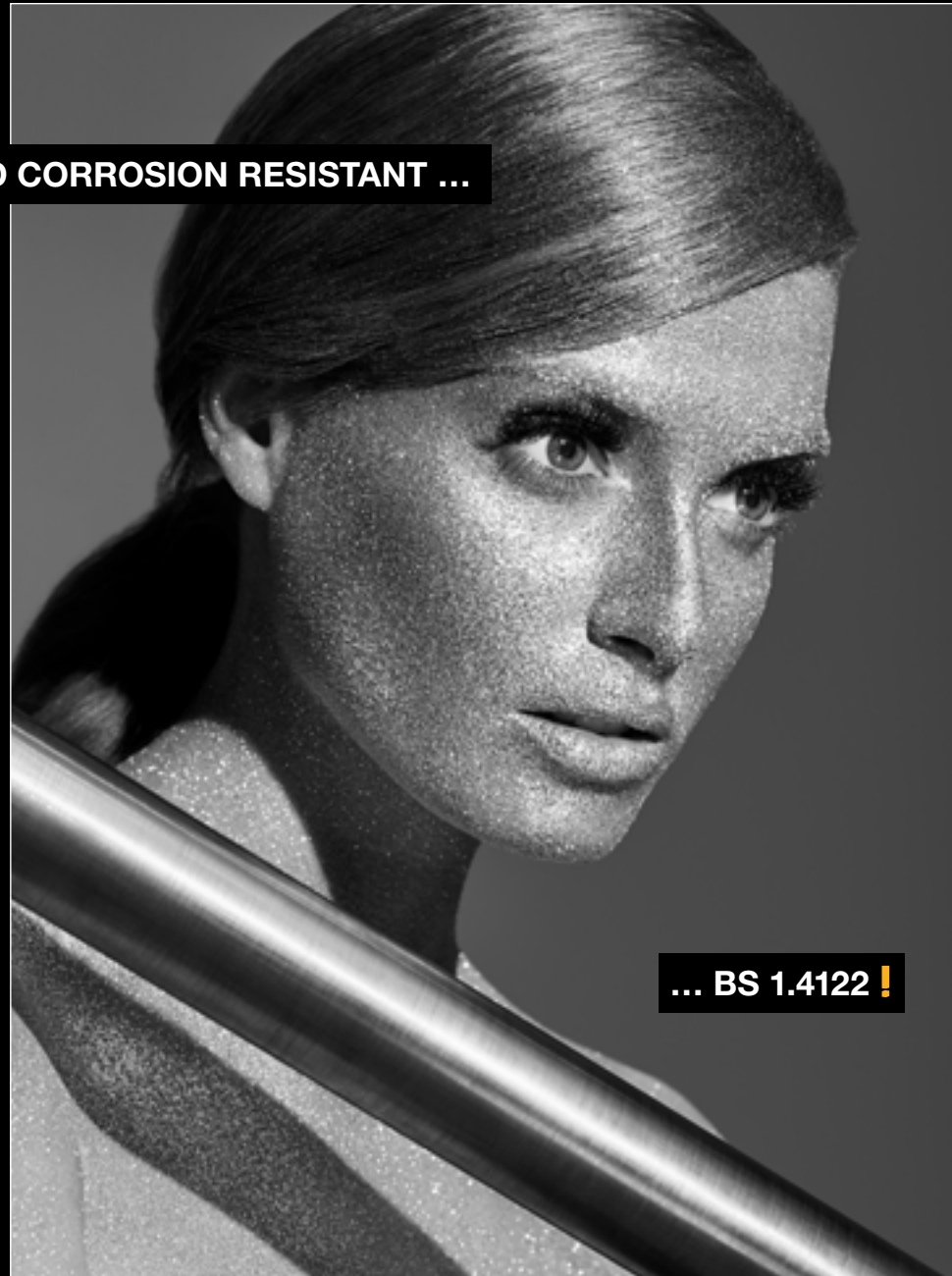
1.4034
1.4034

1.4031
420 S 45

1.4021
420 S 29

1.4006
410 S 21

QUENCHED AND TEMPERED AND CORROSION RESISTANT ...



... BS 1.4122 !

PREMIUM 1.4122 – BS 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		•

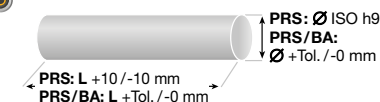
Larger diameters, up to 550.5 mm, and different lengths (e.g. round blanks) available on request!

**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 (approx. on delivery) 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.

**Tolerances****Standard values**

Delivery condition: maximum 325 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0.33	0	0	0	0	15.5	0.8	0
0.45	1.0	1.5	0.045	0.03	17.5	1.3	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

www.premium-steel.co.uk/4122-6
[PRS/BA]
www.premium-steel.co.uk/4122-7

**BS 1.4122 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.4122

via smartphone / tablet:



ABRAMS®

TOOL STEEL I

TOOL STEEL II

HIGH SPEED STEEL

STAINLESS STEEL
corrosion resistant / acid resistant

HEAT-TREATABLE STEEL,
CASE HARDENING- &
NITRIDING STEEL

INFORMATION

CORROSION RESISTANT AND HARDENABLE UP TO 58 HRC ...

... BS 1.4112 !

ABRAMS[®]
PREMIUM STEEL

PREMIUM 1.4112 – BS 1.4112 – AISI / SAE 440B (X90CrMoV18)

Precision flat steel with machining allowance [PFS/BA]

Length: 1,000 mm

	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
WIDTH	Available dimensions [mm]																	
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*					■	■	■	■	■	■	■	■	■	■	■	■		■

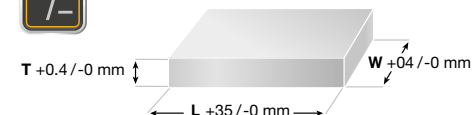
* Width and length sawn/black with +tol./-0 mm

**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: maximum 265 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0.85	0	0	0	0	17.0	0.9	0.07
0.95	1.0	1.0	0.04	0.015	19.0	1.3	0.12

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/4112-4

**BS 1.4112 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.4112

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.4841
314 S 25

1.4571
320 S 31

1.4418
1.4418

1.4404/1.4401
316L/316

1.4305
303 S 31

1.4301
304 S 15

1.4125
440C

1.4122
1.4122

1.4112
1.4112

1.4104
1.4104

1.4057
431 S 29

1.4034
1.4034

1.4031
420 S 45

1.4021
420 S 29

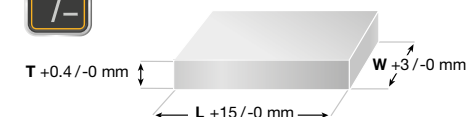
1.4006
410 S 21

PREMIUM 1.4112 – BS 1.4112 – AISI / SAE 440B (X90CrMoV18)

€co-Präz® 300 [€co]

Length: 300 mm

	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
WIDTH	Available dimensions [mm]																		
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	0	0	0	17.0	0.9	0.07
0.95	1.0	1.0	0.04	0.015	19.0	1.3	0.12

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/4112-3-5

**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.

**BS 1.4112 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.4112

via smartphone / tablet:



PREMIUM 1.4112 – BS 1.4112 – AISI / SAE 440B (X90CrMoV18)

Eco-Präz® 500 [€co]

Length: 500 mm

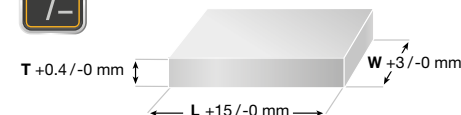
	THICKNESS [mm]																		
	2.3	3.3	4.3	5.3	6.3	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3	60.3	70.3	80.3	90.3	100.3
WIDTH	Available dimensions [mm]																		
33	■	■	■	■	■	■	■	■	■	■	■	■							
43	■	■	■	■	■	■	■	■	■	■	■	■	■						
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■					
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
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 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: maximum 265 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0.85	0	0	0	0	17.0	0.9	0.07
0.95	1.0	1.0	0.04	0.015	19.0	1.3	0.12

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/4112-5-5

**BS 1.4112 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.4112

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.4841
314 S 25

1.4571
320 S 31

1.4418
1.4418

1.4404/1.4401
316L/316

1.4305
303 S 31

1.4301
304 S 15

1.4125
440C

1.4122
1.4122

1.4112
1.4112

1.4104
1.4104

1.4057
431 S 29

1.4034
1.4034

1.4031
420 S 45

1.4021
420 S 29

1.4006
410 S 21

PREMIUM 1.4112 – BS 1.4112 – AISI / SAE 440B (X90CrMoV18)**Hart-Präz® 250 [Hart]**

Length: 250 mm

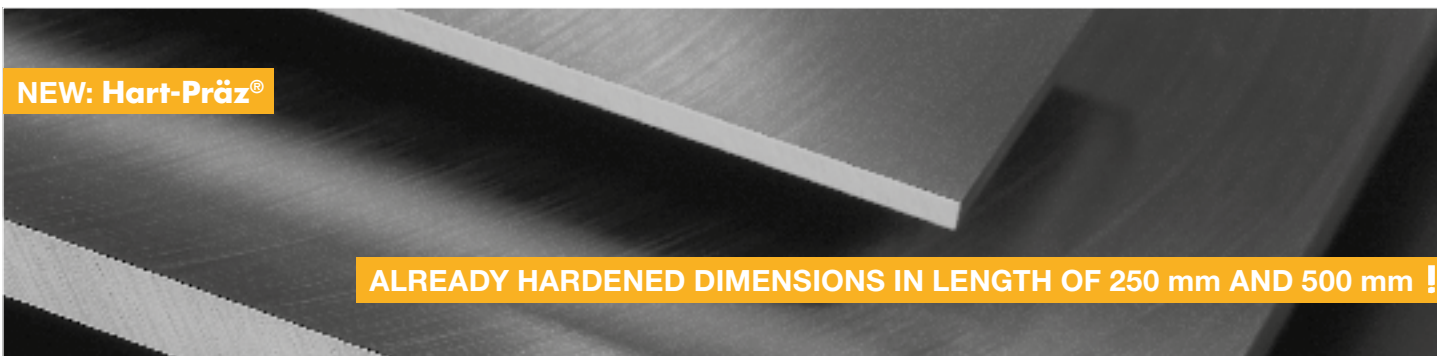
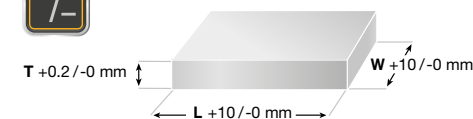
	THICKNESS [mm]												
	2.2	2.7	3.2	3.7	4.2	4.7	5.2	6.2	7.2	8.2	9.2	10.2	12.2
WIDTH	Available dimensions [mm]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

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 [mm]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

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

**Tolerances****Standard values**

Delivery condition: approx. 53 HRC

Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0.85	0	0	0	0	17.0	0.9	0.07
0.95	1.0	1.0	0.04	0.015	19.0	1.3	0.12

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/4112-11-H**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.

**BS 1.4112 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.4112

via smartphone / tablet:



PREMIUM 1.4112 – BS 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		•

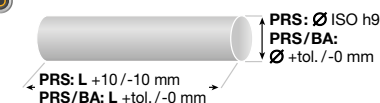
Larger diameters, up to 405.5 mm, and different lengths (e.g. round blanks) available on request!

**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: maximum 265 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0.85	0	0	0	0	17.0	0.9	0.07
0.95	1.0	1.0	0.04	0.015	19.0	1.3	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**

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

www.premium-steel.co.uk/4112-6
[PRS/BA]
www.premium-steel.co.uk/4112-7

**BS 1.4112 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.4112

via smartphone / tablet:



1.4841
314 S 25

1.4571
320 S 31

1.4418
1.4418

1.4404/1.4401
316L/316

1.4305
303 S 31

1.4301
304 S 15

1.4125
440C

1.4122
1.4122

1.4112
1.4112

1.4104
1.4104

1.4057
431 S 29

1.4034
1.4034

1.4031
420 S 45

1.4021
420 S 29

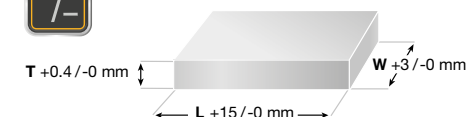
1.4006
410 S 21

PREMIUM 1.4104 – BS 1.4104 – AISI / SAE 430F (X14CrMoS17)

€co-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]															
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	0	0	0.15	15.5	0.20
0.17	1.0	1.5	0.04	0.35	17.5	0.60

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/1.4104-5

**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.

**BS 1.4104 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.4104


via smartphone/tablet:



PREMIUM 1.4104 – BS 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.

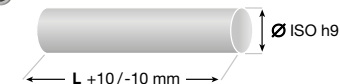
**Technical properties**

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.

**Tolerances****Standard values**

Delivery condition: maximum 270 HB

Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0.10	0	0	0	0.15	15.5	0.20
0.17	1.0	1.5	0.04	0.35	17.5	0.60

**If you need customised dimensions -**

Any dimension available in different lengths (e.g. round blanks).

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/4104-6

**BS 1.4104 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.4104

via smartphone/tablet:



1.4841
314 S 25

1.4571
320 S 31

1.4418
1.4418

1.4404/1.4401
316L/316

1.4305
303 S 31

1.4301
304 S 15

1.4125
440C

1.4122
1.4122

1.4112
1.4112

1.4104
1.4104

1.4057
431 S 29

1.4034
1.4034

1.4031
420 S 45

1.4021
420 S 29

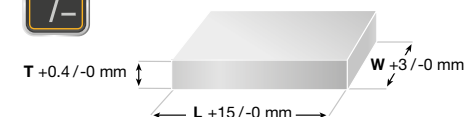
1.4006
410 S 21

PREMIUM 1.4057 – BS 431 S 29 – AISI / SAE 431 (X17CrNi16-2)

€co-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]															
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	0	0	0	15.0	1.5
0.22	1.0	1.5	0.04	0.03	17.0	2.5

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/431S29-5

**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.

**BS 431 S 29 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/431S29

via smartphone / tablet:



PREMIUM 1.4057 – BS 431 S 29 – AISI / SAE 431 (X17CrNi16-2)

Precision round steel without machining allowance [PRS]

Specification: bright drawn/ground, ISO h9

Ø [mm]	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	•	
»		

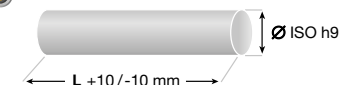
Further diameters on request.

**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.

**Tolerances****Standard values**

Delivery condition: maximum 331 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Ni
0.12	0	0	0	0	15.0	1.5
0.22	1.0	1.5	0.04	0.03	17.0	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/431S29-6

**BS 431 S 29 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/431S29

via smartphone / tablet:

1.4841
314 S 251.4571
320 S 311.4418
1.44181.4404/1.4401
316L/3161.4305
303 S 311.4301
304 S 151.4125
440C1.4122
1.41221.4112
1.41121.4104
1.4104**1.4057**
431 S 291.4034
1.40341.4031
420 S 451.4021
420 S 291.4006
410 S 21

PREMIUM 1.4034 – BS 1.4034 – AISI / SAE 1.4034 (X46Cr13)

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 [mm]														
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 *		■	■	■	■	■	■	■	■	■	■				

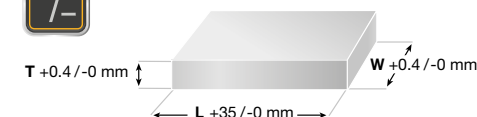
* Width and length sawn/black with +tol./-0 mm

**Technical properties**

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	0	0	0	12.5
0.5	1.0	1.0	0.04	0.015	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/4034-4

**BS 1.4034 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.4034

via smartphone/tablet:



PREMIUM 1.4034 – BS 1.4034 – AISI / SAE 1.4034 (X46Cr13)

Eco-Präz® 500 [€co]

Length: 500 mm

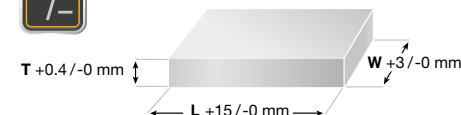
	THICKNESS [mm]													
	2.3	3.3	4.3	5.3	6.3	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3
WIDTH	Available dimensions [mm]													
33	■	■	■	■	■	■	■	■	■	■	■	■	■	■
43	■	■	■	■	■	■	■	■	■	■	■	■	■	■
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■
83	■	■	■	■	■	■	■	■	■	■	■	■	■	■
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	0	0	0	12.5
0.5	1.0	1.0	0.04	0.015	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/4034-5

**BS 1.4034 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.4034

via smartphone/tablet:

1.4841
314 S 251.4571
320 S 311.4418
1.44181.4404/1.4401
316L/3161.4305
303 S 311.4301
304 S 151.4125
440C1.4122
1.41221.4112
1.41121.4104
1.41041.4057
431 S 29**1.4034**
1.40341.4031
420 S 451.4021
420 S 291.4006
410 S 21

PREMIUM 1.4034 – BS 1.4034 – AISI / SAE 1.4034 (X46Cr13)**Hart-Präz® 250 [Hart]**

Length: 250 mm

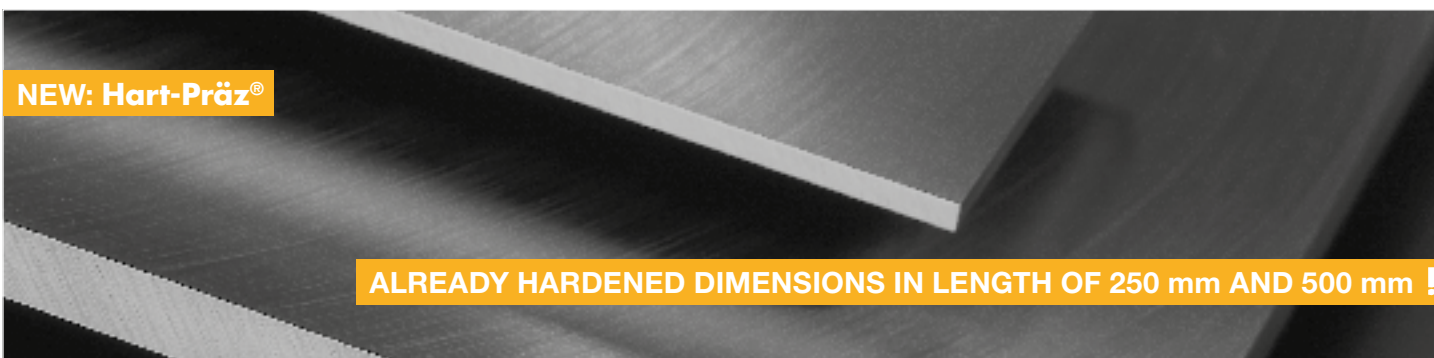
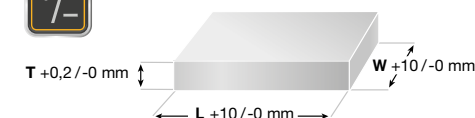
	THICKNESS [mm]												
	2.2	2.7	3.2	3.7	4.2	4.7	5.2	6.2	7.2	8.2	9.2	10.2	12.2
WIDTH	Available dimensions [mm]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

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 [mm]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

Hardened dimensions are delivered with approx. 50 HRC, at least 2x tempered.

**Tolerances****Standard values**

Delivery condition: approx. 50 HRC

Chemical composition:

C	Si	Mn	P	S	Cr
0,43	0	0	0	0	12,5
0,5	1,0	1,0	0,04	0,015	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/4034-11-H

**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.

**BS 1.4034 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.4034

via smartphone/tablet:



PREMIUM 1.4034 – BS 1.4034 – AISI / SAE 1.4034 (X46Cr13)

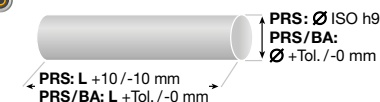
Precision round steel without machining allowance [PRS]
Specification: bright drawn/ground, ISO h9

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	0	0	0	12.5
0.5	1.0	1.0	0.04	0.015	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**

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

www.premium-steel.co.uk/4034-6
[PRS/BA]

www.premium-steel.co.uk/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.

**BS 1.4034 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.4034

via smartphone/tablet:



PREMIUM 1.4031 – BS 420 S 45 – 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 [mm]														
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

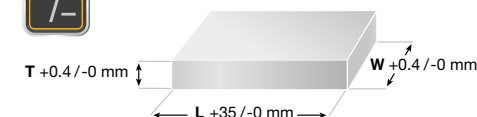
**Technical properties**

Martensitic chromium steel with good mechanical properties. Excellent polishing properties, good corrosion resistance, good chemical resistance and difficult to weld. Due to its 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	0	0	0	12.5
0.42	1.0	1.0	0.04	0.015	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/420S45-4

**BS 420 S 45 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/420S45

via smartphone/tablet:



PREMIUM 1.4031 – BS 420 S 45 – AISI / SAE ~420 (X39Cr13)

Eco-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]													
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	■	■	■	■	■	■	■	■	■	■	■	■	■	■

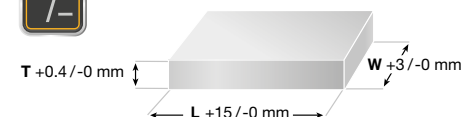
**Technical properties**

Martensitic chromium steel with good mechanical properties. Excellent polishing properties, good corrosion resistance, good chemical resistance and difficult to weld. Due to its 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	0	0	0	12.5
0.42	1.0	1.0	0.04	0.015	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/420S45-5

**BS 420 S 45 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/420S45

via smartphone/tablet:

NAVIGATION/
STEEL GRADES

1.4841
314 S 25

1.4571
320 S 31

1.4418
1.4418

1.4404/1.4401
316L/316

1.4305
303 S 31

1.4301
304 S 15

1.4125
440C

1.4122
1.4122

1.4112
1.4112

1.4104
1.4104

1.4057
431 S 29

1.4034
1.4034

1.4031
420 S 45

1.4021
420 S 29

1.4006
410 S 21

PREMIUM 1.4031 – BS 420 S 45 – AISI / SAE ~420 (X39Cr13)**Hart-Präz® 250 [Hart]**

Length: 250 mm

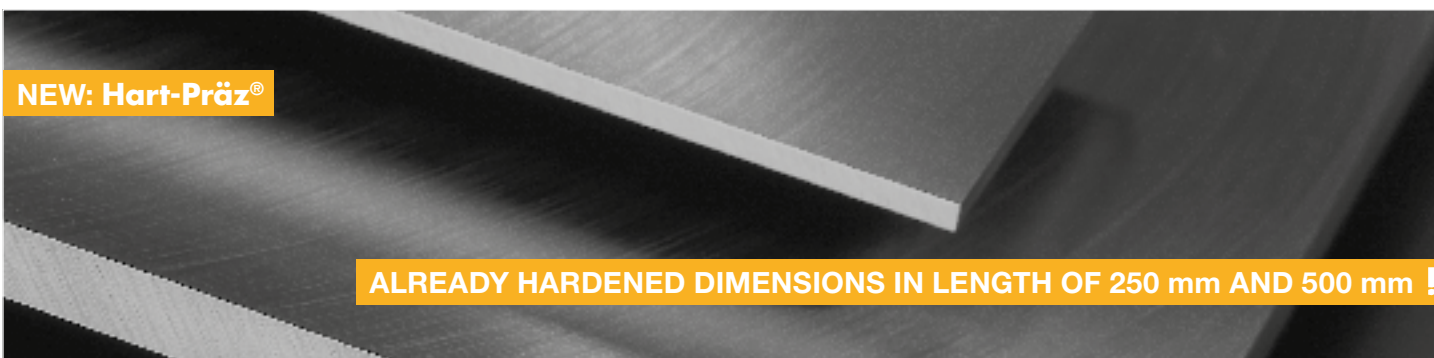
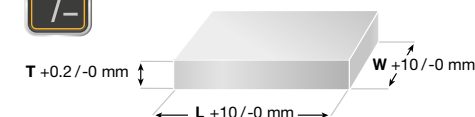
	THICKNESS [mm]												
	2.2	2.7	3.2	3.7	4.2	4.7	5.2	6.2	7.2	8.2	9.2	10.2	12.2
WIDTH	Available dimensions [mm]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

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 [mm]												
250	■	■	■	■	■	■	■	■	■	■	■	■	■

Hardened dimensions are delivered with approx. 50 HRC, at least 2x tempered.

**Tolerances****Standard values**

Delivery condition: approx. 50 HRC

Chemical composition:

C	Si	Mn	P	S	Cr
0.36	0	0	0	0	12.5
0.42	1.0	1.0	0.04	0.015	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/420S45-11-H**Technical properties**

Martensitic chromium steel with good mechanical properties. Excellent polishing properties, good corrosion resistance, good chemical resistance and difficult to weld. Due to its 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.

**BS 420 S 45 – all at a glance!**

Datasheets, online shop, ABRAMS STEEL GUIDE® for alternatives: www.premium-steel.co.uk/420S45

via smartphone/tablet:



PREMIUM 1.4031 – BS 420 S 45 – AISI / SAE ~420 (X39Cr13)

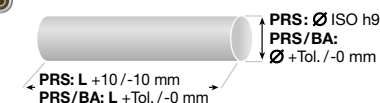
Precision round steel without machining allowance [PRS]
Specification: bright drawn/ground, ISO h9

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	0	0	0	12.5
0.42	1.0	1.0	0.04	0.015	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**

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop [PRS]**

www.premium-steel.co.uk/420S45-6
[PRS/BA]

www.premium-steel.co.uk/420S45-7

**Technical properties**

Martensitic chromium steel with good mechanical properties. Excellent polishing properties, good corrosion resistance, good chemical resistance and difficult to weld. Due to its 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.

**BS 420 S 45 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/420S45

via smartphone / tablet:



1.4841
314 S 25

1.4571
320 S 31

1.4418
1.4418

1.4404/1.4401
316L/316

1.4305
303 S 31

1.4301
304 S 15

1.4125
440C

1.4122
1.4122

1.4112
1.4112

1.4104
1.4104

1.4057
431 S 29

1.4034
1.4034

1.4031
420 S 45

1.4021
420 S 29

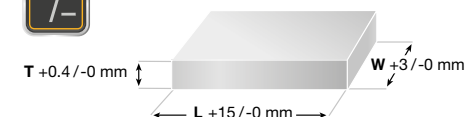
1.4006
410 S 21

PREMIUM 1.4021 – BS 420 S 29 – AISI / SAE ~420 (X20Cr13)

€co-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]															
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	0	0	0	12.0
0.25	1.0	1.5	0.04	0.015	14.0

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/420S29-5

**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.

**BS 420 S 29 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/420S29

via smartphone/tablet:



PREMIUM 1.4021 – BS 420 S 29 – AISI / SAE ~420 (X20Cr13)

Precision round steel without machining allowance [PRS]

Specification: bright drawn / ground, ISO h9

Ø [mm]	LENGTH [mm]	
	1,000	
Ø [mm]	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	•	
»		

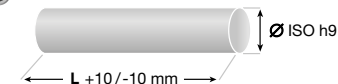
Further diameters on request.

**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.

**Tolerances****Standard values**

Delivery condition: maximum 252 HB
Chemical composition:

C	Si	Mn	P	S	Cr
0.16	0	0	0	0	12.0
0.25	1.0	1.5	0.04	0.015	14.0

**If you need customised dimensions -**

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

**Contact us**

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/420S29-6

**BS 420 S 29 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/420S29

via smartphone / tablet:



1.4841
314 S 25

1.4571
320 S 31

1.4418
1.4418

1.4404/1.4401
316L/316

1.4305
303 S 31

1.4301
304 S 15

1.4125
440C

1.4122
1.4122

1.4112
1.4112

1.4104
1.4104

1.4057
431 S 29

1.4034
1.4034

1.4031
420 S 45

1.4021
420 S 29

1.4006
410 S 21

ABRAMS®

TOOL STEEL I

TOOL STEEL II

HIGH SPEED STEEL

STAINLESS STEEL
corrosion resistant / acid resistant

**HEAT-TREATABLE STEEL,
CASE HARDENING- &
NITRIDING STEEL**

INFORMATION



ORDER THE SMALLEST AMOUNT - WITHOUT A MINIMUM ORDER VALUE!

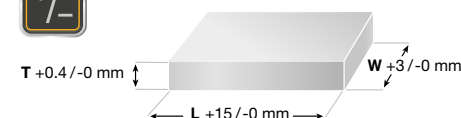
ABRAMS!
PREMIUM STEEL

PREMIUM 1.4006 – BS 410 S 21 – AISI / SAE 410 (X12Cr13)

Eco-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]															
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	0	0	0	11.5	0
0.15	1.0	1.5	0.04	0.03	13.5	0.75

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/410S21-5

**Technical properties**

Corrosion resistant, martensitic steel (tempered condition), which shows 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).

**BS 410 S 21 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/410S21

via smartphone/tablet:



1.4841
314 S 25

1.4571
320 S 31

1.4418
1.4418

1.4404/1.4401
316L/316

1.4305
303 S 31

1.4301
304 S 15

1.4125
440C

1.4122
1.4122

1.4112
1.4112

1.4104
1.4104

1.4057
431 S 29

1.4034
1.4034

1.4031
420 S 45

1.4021
420 S 29

1.4006
410 S 21

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 – BS 1.1730: W** +0.4/-0 mm, **T** +0.25/-0 mm



Precision round steel without machining allowance [PRS]

- bright ground, tol.: Ø ISO h8, **L** +10/-10 mm
- bright drawn/finely peeled/ground, tol.: Ø ISO h9, **L** +10/-10 mm
- bright finely peeled, tol.: Ø 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.: Ø +tol./-0 mm, **L** +tol./-0 mm
- **Exception PREMIUM 1.3343 – BS BM 2**
L 1,000 mm, tol. **L** +10/-10 mm
- **Particularity: PREMIUM 1.2826 – BS 1.2826, PREMIUM 1.2360 – BS ~ Chipper /~ mod. PREMIUM 1.2067 – BS 1.2367:**
Ø are metric full values (for example 30.0 mm), therefore there is no basic machining allowance (for example 30.5 mm)



Eco-Präz® [Eco]

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



Hart-Präz® [Hart]

For example: 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.co.uk/glossary



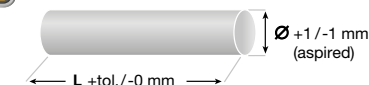
PREMIUM 1.8550 – BS 1.8550 – AISI / SAE 1.8550 (34CrAlNi7)

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	0.40	0	0	1.50	0.15	0.85	0.8
0.37	0.40	0.70	0.025	0.03	1.80	0.25	1.15	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/8550-8

**Technical properties**

The BS 1.8550 is a CrAlNiMo alloyed nitriding steel (tempered condition), which is used for heavy duty parts in mechanical engineering due to its 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.

**BS 1.8550 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.8550

via smartphone/tablet:



PREMIUM 1.8519 – BS 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		•

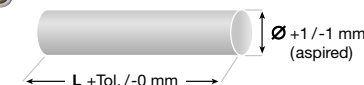
Larger diameters, up to 600 mm, and different lengths (e.g. round blanks) available on request!

**Technical properties**

CrMoV alloyed nitriding steel (tempered condition), which is used for automotive engineering and propulsion techniques due to its high wear resistance.
Achievable nitriding hardness approx. 800 HV (approx. 64 HRC).

**Applications**

Automotive industry, drive technology, mechanical engineering, valve construction, plant engineering, engine and piston construction.

**Tolerances****Standard values**

Delivery condition: maximum 352 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	V
0.27	0	0.4	0	0	2.3	0.15	0.10
0.34	0.4	0.7	0.025	0.035	2.7	0.25	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**

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/8519-8

**AISI / SAE 1.8519 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.8519

via smartphone/tablet:



GOOD MACHINABILITY ...



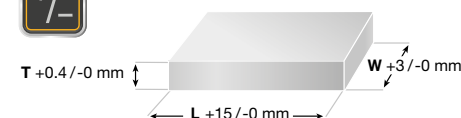
... DUE TO ADDED SULPHUR – BS 709 M 40 !

PREMIUM 1.7227 – BS 709 M 40 – AISI / SAE 4140 (42CrMoS4)

Eco-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]															
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	0.6	0	0.02	0.9	0.15
0.45	0.4	0.9	0.035	0.04	1.2	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/709M40-5

**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.

**BS 709 M 40 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/709M40

via smartphone/tablet:



1.8550
1.8550

1.8519
1.8519

1.7227
709 M 40

1.7225
708 M 40

1.7225+QT
708 M 40+QT

1.7147
1.7147

1.7131
527 M 17

1.6587
820 A 16


1.6582
817 M 40

1.6580
823 M 30

PREMIUM 1.7225 – BS 708 M 40 – AISI / SAE 4140 (42CrMo4)

€co-Präz® 500 [€co]

Length: 500 mm

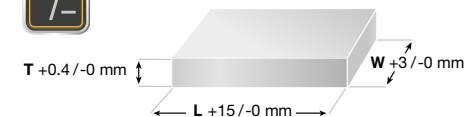
	THICKNESS [mm]																
	2.3	3.3	4.3	5.3	6.3	8.3	10.3	12.3	15.3	20.3	25.3	30.3	35.3	40.3	50.3	60.3	80.3
WIDTH	Available dimensions [mm]																
33	■	■	■	■	■	■	■	■	■	■	■	■					
43	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
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**

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	0.6	0	0	0.9	0.15
0.45	0.4	0.9	0.035	0.035	1.2	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/708M40-5

**BS 708 M 40 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/708M40


via smartphone/tablet:



PREMIUM 1.7225 – BS 708 M 40 – AISI / SAE 4140 (42CrMo4)

€co-Präz® 1,000 [€co]

Length: 1,000 mm

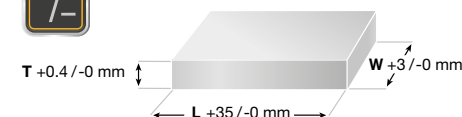
	THICKNESS [mm]																
	2.3	3.3	4.3	5.3	6.3	8.3	10.3	12.3	15.3	20.3	25.3	30.3	35.3	40.3	50.3	60.3	80.3
WIDTH	Available dimensions [mm]																
33	■	■	■	■	■	■	■	■	■	■	■	■					
43	■	■	■	■	■	■	■	■	■	■	■	■	■	■			
53	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
63	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
73	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
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	0.6	0	0	0.9	0.15
0.45	0.4	0.9	0.035	0.035	1.2	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/708M40-10

**BS 708 M 40 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/708M40

via smartphone/tablet:



1.8550
1.8550

1.8519
1.8519

1.7227
709 M 40

1.7225
708 M 40

1.7225+QT
708 M 40+QT

1.7147
1.7147

1.7131
527 M 17

1.6587
820 A 16

1.6582
817 M 40

1.6580
823 M 30

ABRAMS®

TOOL STEEL I

TOOL STEEL II

HIGH SPEED STEEL

STAINLESS STEEL
corrosion resistant / acid resistant

HEAT-TREATABLE STEEL,
CASE HARDENING- &
NITRIDING STEEL

INFORMATION

PASSION !

ABRAMS!
PREMIUM STEEL

PREMIUM 1.7225+QT – BS 708 M 40+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!

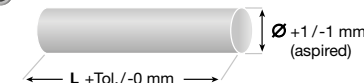
**Technical properties**

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.

**Tolerances****Standard values**

Delivery condition: maximum 380 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo
0.38	0	0.6	0	0	0.9	0.15
0.45	0.4	0.9	0.035	0.035	1.2	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/708M40QT-8

**BS 708 M 40 + QT – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/708M40QT

via smartphone/tablet:



1.8550
1.8550

1.8519
1.8519

1.7227
709 M 40

1.7225
708 M 40

1.7225+QT
708 M 40+QT

1.7147
1.7147

1.7131
527 M 17

1.6587
820 A 16

1.6582
817 M 40

1.6580
823 M 30

CASE HARDENING STEEL !



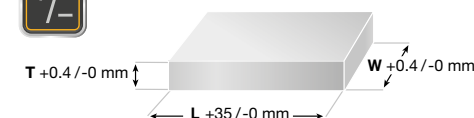
PREMIUM 1.7147 – BS 1.7147 – AISI / SAE 5120 (20MnCr5, EC100)

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	36.3	40.3	50.3	60.3	70.3	80.3	100.3
WIDTH	Available dimensions [mm]															
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	1.1	0	0	1.0
0.22	0.4	1.4	0.025	0.035	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/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 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.

**BS 1.7147 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.7147

via smartphone/tablet:

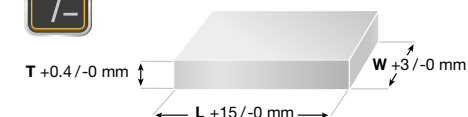
1.8550
1.85501.8519
1.85191.7227
709 M 401.7225
708 M 401.7225+QT
708 M 40+QT**1.7147**
1.71471.7131
527 M 171.6587
820 A 161.6582
817 M 401.6580
823 M 30

PREMIUM 1.7147 – BS 1.7147 – AISI / SAE 5120 (20MnCr5, EC100)

€co-Präz® 500 [€co]

Length: 500 mm

	THICKNESS [mm]									
	6.3	8.3	10.3	12.3	15.3	20.3	25.3	30.3	40.3	50.3
WIDTH	Available dimensions [mm]									
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	1.1	0	0	1.0
0.22	0.4	1.4	0.025	0.035	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/1.7147-5

**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.

**BS 1.7147 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.7147

via smartphone / tablet:



PREMIUM 1.7147 – BS 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		•

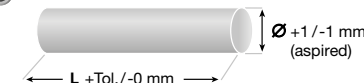
Larger diameters, up to 200 mm, and different lengths (e.g. round blanks) available on request!

**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
0.17	0	1.1	0	0	1.0
0.22	0.4	1.4	0.025	0.035	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/1.7147-8

**BS 1.7147 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/1.7147

via smartphone/tablet:



1.8550
1.8550

1.8519
1.8519

1.7227
709 M 40

1.7225
708 M 40

1.7225+QT
708 M 40+QT

1.7147
1.7147

1.7131
527 M 17

1.6587
820 A 16

1.6582
817 M 40

1.6580
823 M 30

HEART AND SOUL IN STEEL !



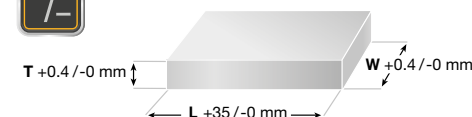
PREMIUM 1.7131 – BS 527 M 17 – AISI / SAE 5115 (16MnCr5, EC80)

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	36.3	40.3	50.3	60.3	70.3	80.3	100.3
WIDTH	Available dimensions [mm]															
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	1.0	0	0	0.8
0.19	0.4	1.3	0.025	0.035	1.1

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**www.premium-steel.co.uk/527M17-4**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.

**BS 527 M 17 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/527M17

via smartphone/tablet:

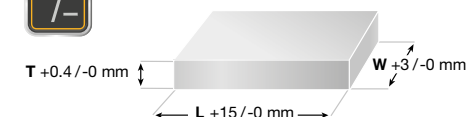
1.8550
1.85501.8519
1.85191.7227
709 M 401.7225
708 M 401.7225+QT
708 M 40+QT1.7147
1.71471.7131
527 M 171.6587
820 A 161.6582
817 M 401.6580
823 M 30

PREMIUM 1.7131 – BS 527 M 17 – AISI / SAE 5115 (16MnCr5, EC80)

€co-Präz® 500 [€co]

Length: 500 mm

	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
WIDTH	Available dimensions [mm]													
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
0.14	0	1.0	0	0	0.8
0.19	0.4	1.3	0.025	0.035	1.1

**If you need customised dimensions -**

Any dimension available in different heights, widths and lengths.

On request - according to your needs!

**Contact us**

T: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/527M17-5

**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.

**BS 527 M 17 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/527M17

via smartphone/tablet:



PREMIUM 1.7131 – BS 527 M 17 – 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		•

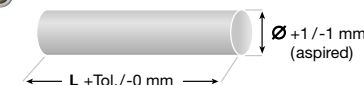
Larger diameters, up to 200 mm, and different lengths (e.g. round blanks) available on request!

**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	1.0	0	0	0.8
0.19	0.4	1.3	0.025	0.035	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: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/527M17-8

**BS 527 M 17 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/527M17

via smartphone/tablet:



1.8550
1.8550

1.8519
1.8519

1.7227
709 M 40

1.7225
708 M 40

1.7225+QT
708 M 40+QT

1.7147
1.7147

1.7131
527 M 17

1.6587
820 A 16

1.6582
817 M 40

1.6580
823 M 30

ABRAMS®

TOOL STEEL I

TOOL STEEL II

HIGH SPEED STEEL

STAINLESS STEEL
corrosion resistant / acid resistant

**HEAT-TREATABLE STEEL,
CASE HARDENING- &
NITRIDING STEEL**

INFORMATION



STEEL MADE WITH "STYLE"!

ABRAMS!
PREMIUM STEEL®

PREMIUM 1.6587 – BS 820 A 16 – 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		•

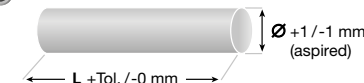
Larger diameters, up to 700 mm, and different lengths (e.g. round blanks) available on request!

**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 BS 820 A 16 is usually difficult to weld. Surface hardness according to case hardness. Working hardness: 58-60 HRC.

**Applications**

Shafts, gear parts, gears, bevel gears, driving pinion.

**Tolerances****Standard values**

Delivery condition: maximum 229 HB
Chemical composition:

C	Si	Mn	P	S	Cr	Mo	Ni
0.15	0	0.5	0	0	1.5	0.25	1.4
0.21	0.4	0.9	0.025	0.035	1.8	0.35	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/820A16-8

**BS 820 A 16 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/820A16

via smartphone/tablet:



1.8550
1.8550

1.8519
1.8519

1.7227
709 M 40

1.7225
708 M 40

1.7225+QT
708 M 40+QT

1.7147
1.7147

1.7131
527 M 17

1.6587
820 A 16

1.6582
817 M 40

1.6580
823 M 30

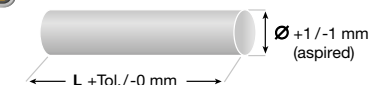
PREMIUM 1.6582 – BS 817 M 40 – AISI / SAE 4337 (34CrNiMo6)

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	0.5	0	0	1.3	0.15	1.3
0.38	0.4	0.8	0.025	0.035	1.7	0.3	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/817M40-8

**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.

**BS 817 M 40 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/817M40

via smartphone / tablet:

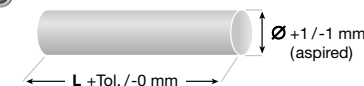


PREMIUM 1.6580 – BS 823 M 30 – AISI / SAE 4340 (30CrNiMo8)

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	0.3	0	0	1.8	0.3	1.8
0.34	0.4	0.6	0.025	0.035	2.2	0.5	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: +44 (0) 121 368 0910

E: sales@abrams-industries.co.uk

**Direct access to our online shop**

www.premium-steel.co.uk/823M30-8

**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.

**BS 823 M 30 – all at a glance!**

Datasheets, online shop,
ABRAMS STEEL GUIDE® for alternatives:
www.premium-steel.co.uk/823M30

via smartphone/tablet:



1.8550
1.8550

1.8519
1.8519

1.7227
709 M 40

1.7225
708 M 40

1.7225+QT
708 M 40+QT

1.7147
1.7147

1.7131
527 M 17

1.6587
820 A 16

1.6582
817 M 40

1.6580
823 M 30

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.abramsartprojects.com. 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“).



ABRAMS®

TOOL STEEL I

TOOL STEEL II

HIGH SPEED STEEL

STAINLESS STEEL
corrosion resistant / acid resistant

HEAT-TREATABLE STEEL,
CASE HARDENING- &
NITRIDING STEEL

INFORMATION



WWW.ABRAMSARTPROJECTS.COM

ABRAMS![®]
PREMIUM STEEL

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.co.uk/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.co.uk/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 40 kg are dispatched via parcel.
Consignments above 40 kg 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.co.uk/shippingcosts 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.

HELPFUL INFORMATION CONCERNING PRECISION STEEL

ABRAMS PREMIUM STEEL®	www.premium-steel.co.uk
ABRAMS PREMIUM STEEL® Shop	www.premium-steel.co.uk/shop
STEEL GRADES	www.premium-steel.co.uk/steelgrades
Steel specifications	www.premium-steel.co.uk/specifications
Steel weight table (flat- and round)	www.premium-steel.co.uk/weights
Current alloy surcharges	www.premium-steel.co.uk/alloysurcharges
Current delivery fees	www.premium-steel.co.uk/deliveryfees

ABRAMS INDUSTRIES®

ABRAMS STEEL GUIDE®	www.steel-guide.co.uk
ABRAMS INDUSTRIES®	www.abrams-industries.co.uk
ABRAMS® News	www.abrams-industries.co.uk/news
ABRAMS® GTC	www.abrams-industries.co.uk/gtc
ABRAMS PREMIUM ALUMINIUM®	www.premium-aluminium.co.uk
ABRAMS® PREMIUM TOOLS	www.premium-tools.co.uk
ABRAMS® Artprojects	www.abrams-artprojects.co.uk

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.

©2023 ABRAMS Industries GmbH & Co. KG

ABRAMS!®

PREMIUM STEEL!

								1.8550
								1.8519
1.2990 mod.	1.2714+QT	1.2361	1.2312			1.4841 314 S 25	1.4122	1.7227 709 M 40
1.2842 BO 2	1.2709 ESU/ERS	1.2360 ~ Chipper	1.2311	1.2083 ESU/ESR		1.4571 320 S 31	1.4112	1.7225 708 M 40
1.2510 BO 1	1.2550 BS 1	1.2358	1.2294	1.2080 mod. BD 3 mod.		1.4418	1.4104	1.7225+QT 708 M 40+QT
1.2826	1.2436 BD 6	1.2344 BH 13	1.2210	1.2067 BL 3/BL 1		1.4404 BS 316L	1.4057 431 S 29	1.7147
1.2767	1.2379 BD 2	1.2344 ESU H13 ESR	1.2162	1.1730	HSS 1.3343 BM 2	1.4401 BS 316	1.4034	1.7131 527 M 17
1.2767 ESU/ESR	1.2367	1.2343 BH 11	1.2099	1.0570 (St 52-3)	HSS PM 30	1.4305 303 S 31	1.4031 420 S 45	1.6587 820 A 16
1.2738	1.2365 BH 10	1.2343 ESU BH 11 ESR	1.2085	Toolox 33	HSS PM 23 BM 3	1.4301 304 S 15	1.4021 420 S 29	1.6582 817 M 40
1.2714	1.2363 BA 2	1.2316	1.2083	Toolox 44	HSS PM 4 BM 4	1.4125 440C	1.4006 410 S 21	1.6580 823 M 30

- + 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!

ABRAMS PREMIUM STEEL®

is a registered trademark of
Abrams Industries GmbH & Co. KG
Hannoversche Straße 38/46
49084 Osnabrück/Germany

WEB

www.abrams-industries.co.uk
www.premium-steel.co.uk
www.premium-steel.co.uk/shop
www.abrams-industries.co.uk/LinkedIn

SALES

T: +44 (0) 121 368 0910
E: sales@abrams-industries.co.uk

* The domestic service numbers listed
here are used to reduce the costs for our
customers in Great Britain. You will be
redirected to our native English speaking
accounts management team in Germany.

