

Steel grade

Material No.	PREMIUM A8 mod. / Chipper
AISI	A8 mod. / Chipper
Search for alternatives in the ABRAMS STEEL GUIDE	www.abrams-steelguide.com/alternatives/A8

Shapes



**Smart Flat Stock [€co]
Standardized Precision Blanks**
L: 12"
L: 24"



**Smart Flat Stock Metric [€coM]
Standardized Precision Blanks Metric**
L: 300 mm
L: 600 mm

Chemical composition AISI Chipper* (reference value %)

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

*This specification will be delivered as Chipper-Knife-Steel (reduced content of vanadium - approx. 0.5 % V - in order to increase the toughness of your application).

Physical properties

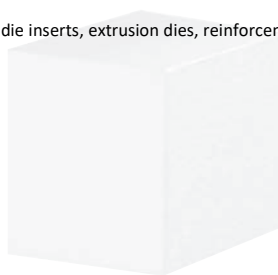
Hardness (delivery condition)	max. 250 HB, annealed		
Tensile strength R_m (as received condition)	approx. 123.2 KSI		
Working hardness	max. 60 HRC		
Thermal expansion coefficient $10^{-6}m/(m \cdot K)$	68 - 392°F	68 - 752°F	
	11.6	11.3	
Thermal conductivity $W/(m \cdot K)$	68°F	392°F	752°F
	26.1	27.1	28.6

Technical properties

Very robust cold work steel which can be used for a wide range of applications. Has good through-hardening and high toughness (reduced occurrence of hard carbides with 8% chromium compared to 12% chromium in AISI D2). High cutting power, high wear resistance as well as excellent tempering resistance.

Applications

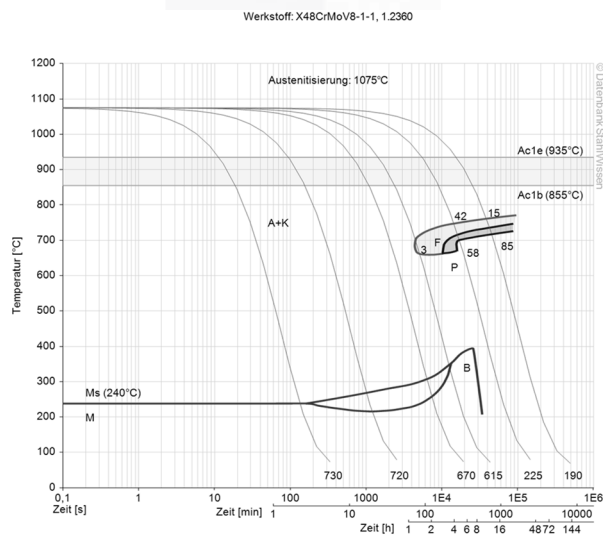
Blanking tools, stamping tools, embossing tools, forming dies, press dies, die inserts, extrusion dies, reinforcements, cold extrusion tools, tube tools, cutting tools, industrial knives, wood chipping knives, veneer knives.



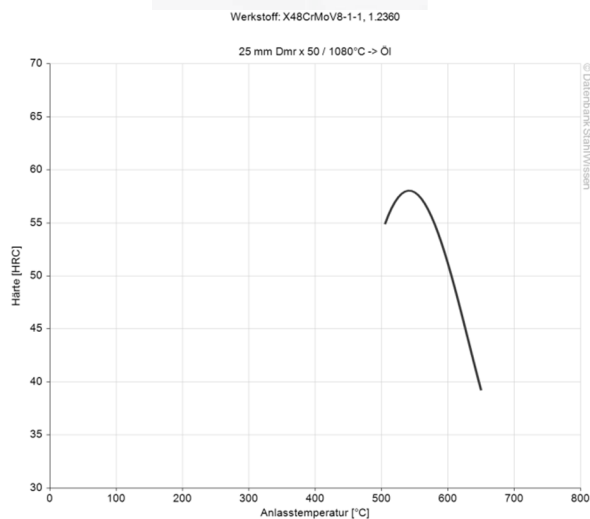
Heat treatment

Soft annealing	Temperature		Cooling		Hardness		
	1526 - 1580°F		Furnace		max. 250 HB		
Stress relief annealing	Temperature		Cooling				
	approx. 1202°F		Furnace				
Hardening	Temperature		Quenching in		Hardness after quenching		
	1886 - 1958°F		Air, oil, hot basin (1022°F)		60 - 61 HRC		
Tempering	212°F	392°F	572°F	752°F	932°F	1022°F	1112°F
	61 HRC	60 HRC	58 HRC	58 HRC	60 HRC	57 HRC	53 HRC

Continuous ZTU-diagram



Tempering diagram



The data shown here is to be used only as an indication of the statistics, thus we accept no liability.
 Diagrammsetaken from Datenbank StahlWissen Dr. Sommer Werkstofftechnik
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