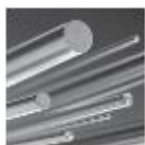


Steel grade

Material No. / Werkstoff-Nr.	PREMIUM 1.2826
Description	60MnSiCr4
AISI/SAE	1.2826
Search for alternatives in the ABRAMS STEEL GUIDE®	www.steel-guide.eu/alternatives/1.2826

Specifications



Precision round steel without machining allowance [PRS]
bright finely peeled, ISO h11
L: 1.000 mm

Precision round steel [PRS/BA]
peeled / rough-turned
L: 1.000 mm

Chemical composition AISI/SAE 1.2826 (reference value %)

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

Physical properties

Hardness (delivery condition)	max. 220 HB, annealed			
Tensile strength R_m (as received condition)	approx. 750 N/mm ²			
Working hardness	max. 60 HRC			
Thermal expansion coefficient $10^{-6} \text{ m}/(\text{m} \cdot \text{K})$	20 - 100°C	20 - 200°C	20 - 300°C	20 - 400°C
	12,1	12,8	13,3	13,5
Thermal conductivity $W/(\text{m} \cdot \text{K})$	20°C	350°C	700°C	
	34,2	32,6	31,0	

Technical properties

Cold work steel with excellent wear resistance, high toughness and excellent spring properties when tempered.

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.

Heat treatment

Soft annealing	Temperature		Cooling		Hardness	
		680 - 710°C		Furnace		max. 220 HB
Stress relief annealing	Temperature		Cooling			
		approx. 650°C		Furnace		
Hardening	Temperature		Quenching in		Hardness after quenching	
		820 - 860°C		Oil, hot basin (180 - 220°C)	61 HRC	
Tempering	100°C	200°C	300°C	400°C	500°C	600°C
	61 HRC	59 HRC	57 HRC	52 HRC	46 HRC	36 HRC

ABRAMS PREMIUM STEEL

is a registered trademark of
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Amtsgericht Osnabrueck / Germany, HRA 6865
VAT-No.: DE 221940667
General Partner: Abrams Engineering Verwaltungs GmbH
Amtsgericht Osnabrueck / Germany, HRB 20019

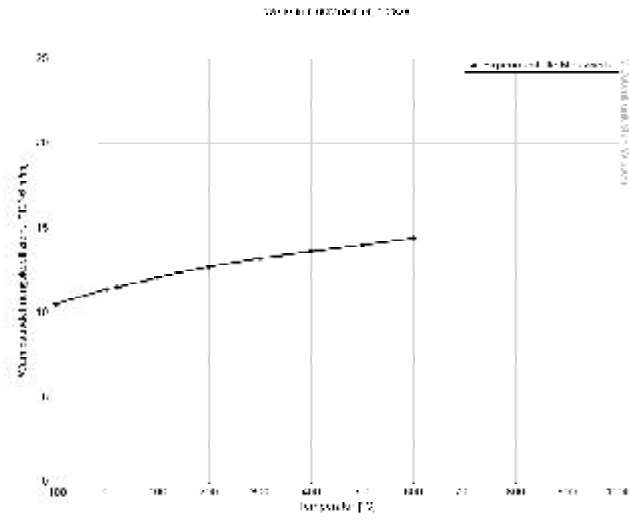
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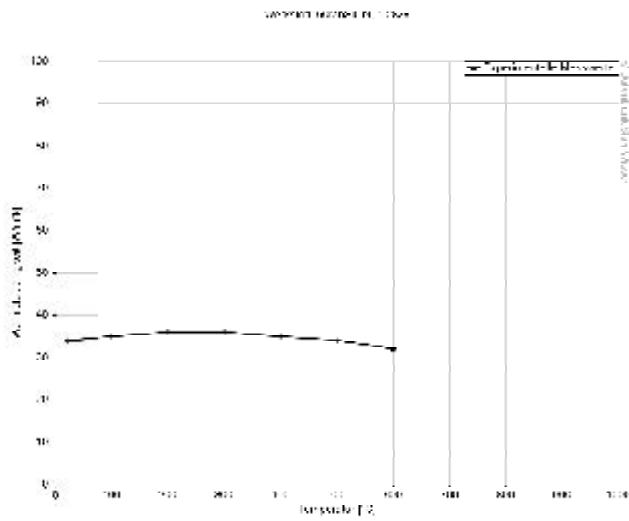
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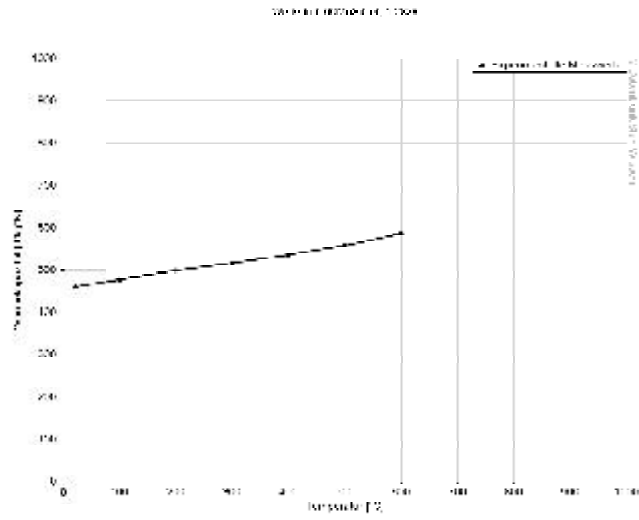
Thermal expansion coefficient diagram



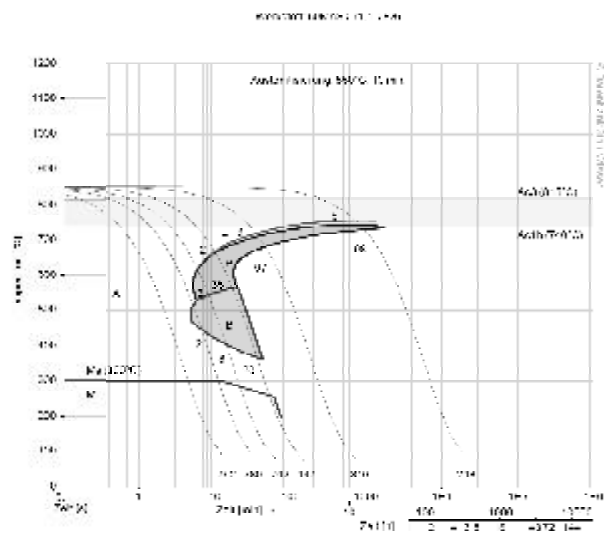
Thermal conductivity diagram



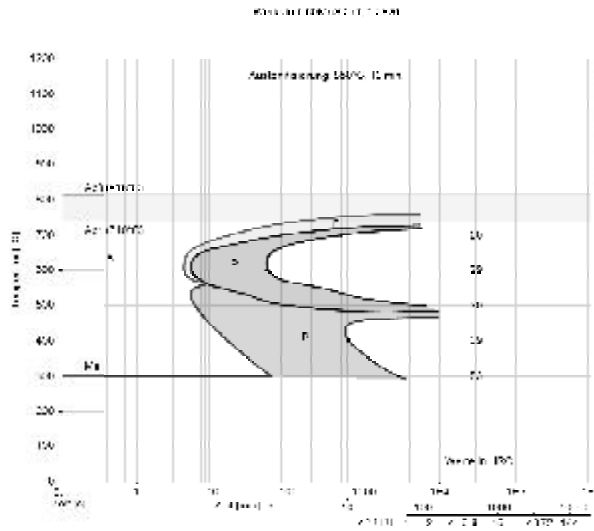
Thermal capacity diagram



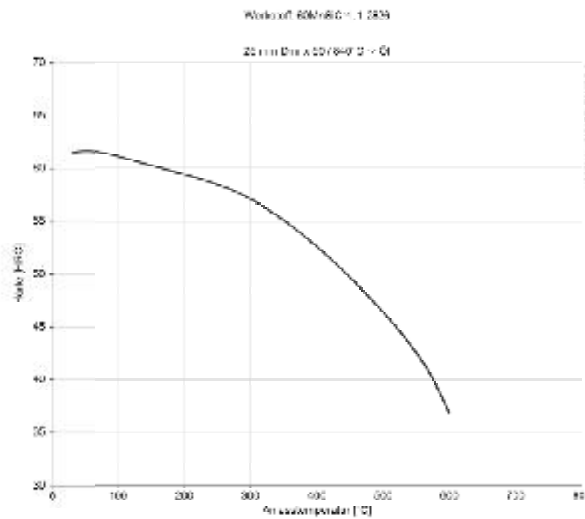
Continuous ZTU-diagram



Isothermal ZTU-diagram



Tempering diagram



The data shown here is to be used only as an indication of the statistics, thus we accept no liability.
Diagrams are taken from Datenbank StahlWissen Dr. Sommer Werkstofftechnik
Issued: 2012

