

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 $10^{-6}m/(m \cdot K)$	20 - 100°C	20 - 200°C	20 - 300°C	20 - 400°C	
	12,1	12,8	13,3	13,5	
Thermal conductivity $W/(m \cdot K)$	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.

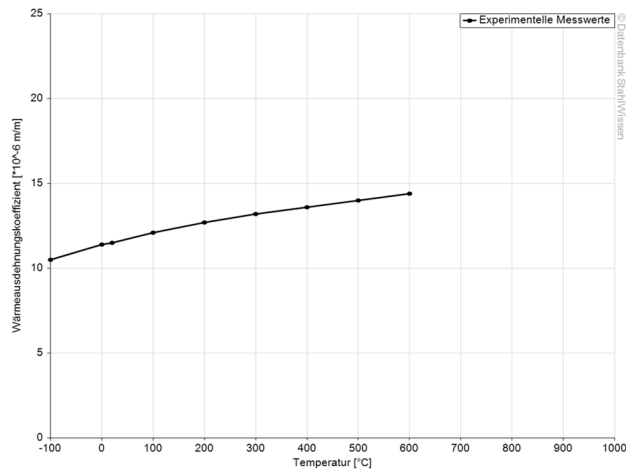
Heat treatment

	Temperature	Cooling	Hardness			
Soft annealing	680 - 710°C	Furnace	max. 220 HB			
	Temperature	Cooling				
Stress relief annealing	approx. 650°C	Furnace				
	Temperature	Quenching in	Hardness after quenching			
Hardening	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



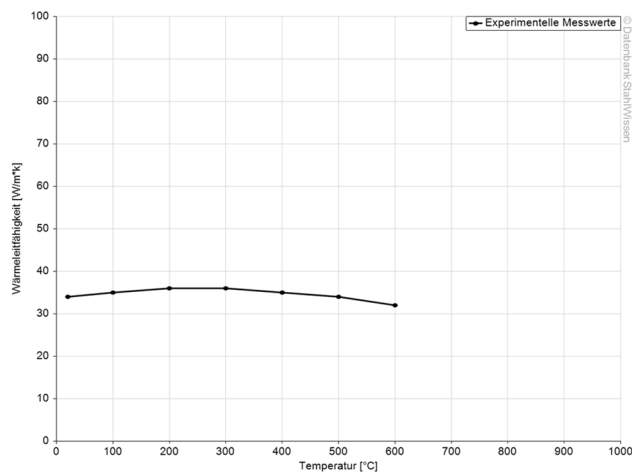
Thermal expansion coefficient diagram

Werkstoff: 60MnSiCr4, 1.2826



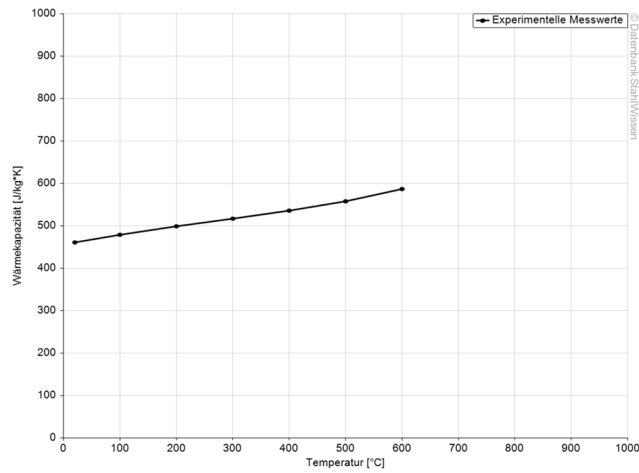
Thermal conductivity diagram

Werkstoff: 60MnSiCr4, 1.2826



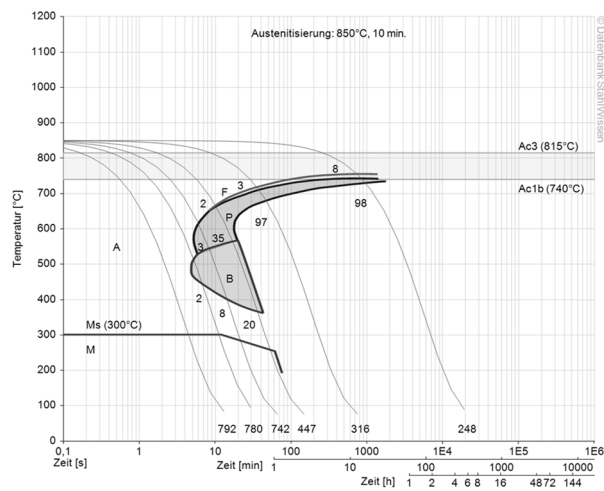
Thermal capacity diagram

Werkstoff: 60MnSiCr4, 1.2826

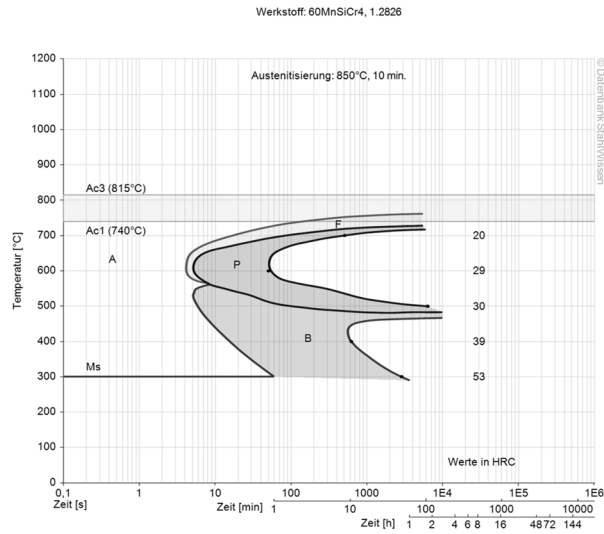


Continuous ZTU-diagram

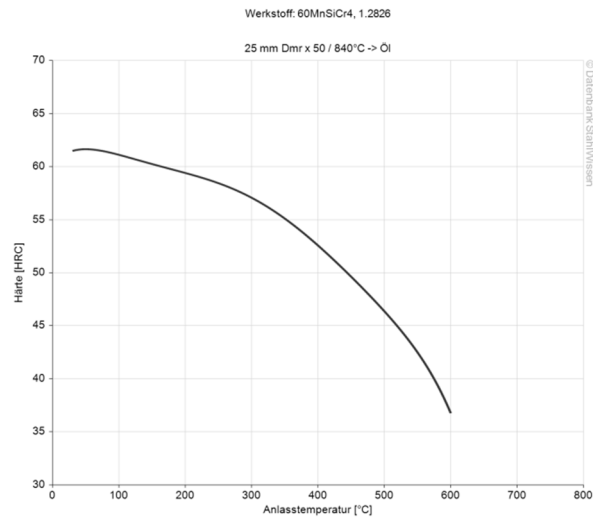
Werkstoff: 60MnSiCr4, 1.2826



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
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