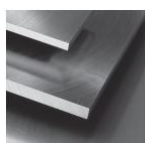


Steel grade

Material No. / Werkstoff-Nr.	PREMIUM 1.4841
Description	X15CrNiSi25-21
BS	314 S 25
AISI/SAE	314
Search for alternatives in the ABRAMS STEEL GUIDE®	www.steel-guide.co.uk/alternatives/314S25

Specifications



€co-Präz* [€co]
L: 500 mm

Chemical composition BS 314 S 25 (reference value %)

C	Si	Mn	P	S	Cr	Ni	N
0 - 0,2	1,5 - 2,5	0 - 2,0	0 - 0,045	0 - 0,015	24,0 - 26,0	19,0 - 22,0	0 - 0,11

Physical properties

Hardness (delivery condition)	max. 223 HB, annealed				
Tensile strength R_m (as received condition)	ca. 755 N/mm ²				
Working hardness	approx. < 20 HRC				
Thermal expansion coefficient $10^{-6}m/(m \cdot K)$	20 - 200°C	20 - 400°C	20 - 600°C	20 - 800°C	20 - 1000°C
	15,5	17,0	17,5	18,0	19,0
Thermal conductivity $W/(m \cdot K)$	20°C	500°C			
	15,0	19,0			

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.

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.

Heat treatment

Solution annealing	Temperature	Cooling	Hardness
	1050 - 1150°C	Air, water	max. 223 HB

ABRAMS PREMIUM STEEL

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Managing Director: Dipl.-Wi.-Ing. Dr. Juergen Abrams

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

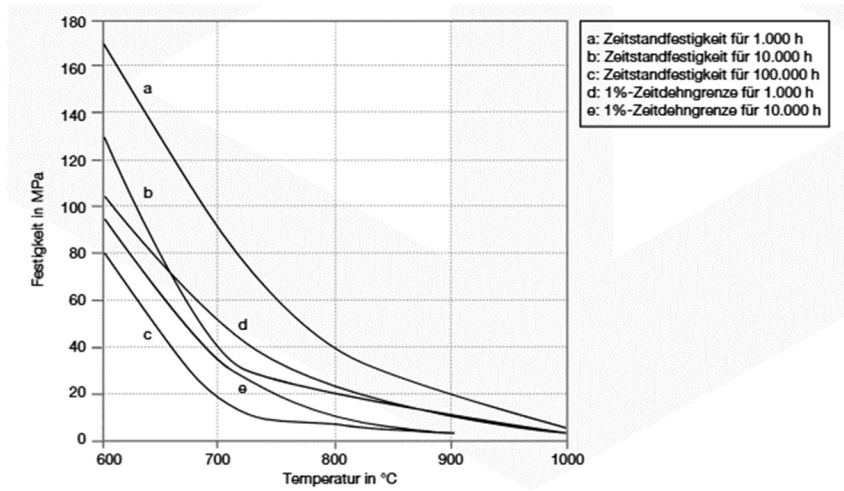
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Mechanical properties at elevated temperatures in solution annealed condition (+AT)



Hardening diagram

