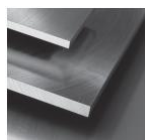


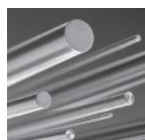
Bezeichnung

Material No. / Werkstoff-Nr.	PREMIUM 1.4404 / 1.4401
Description	X2CrNiMo17-12-2 / X5CrNiMo17-12-2
AISI/SAE	316L / 316
Search for alternatives in the ABRAMS STEEL GUIDE®	www.steel-guide.eu/alternatives/316L

Specifications



€co-Präz* [€co]
L: 500 mm



Precision round steel
without machining allowance [PRS]
bright drawn / ground, ISO h9
L: 1.000 mm

Chemical composition AISI/SAE 316L (reference value %)

C	Si	Mn	P	S	Cr	Mo	Ni	N
0 - 0,03	0 - 1,0	0 - 2,0	0 - 0,04	0,015 - 0,03	16,5 - 18,5	2,0 - 2,5	10,0 - 13,0	0 - 0,1

Physical properties

Hardness (delivery condition)	max. 215 HB, annealed				
Tensile strength R_m (as received condition)	Approx. 690 N/mm ²				
Working hardness	max. <20 HRC				
Thermal expansion coefficient $10^{-6}m/(m \cdot K)$	20 - 100°C	20 - 200°C	20 - 300°C	20 - 400°C	20 - 500°C
	16,0	16,5	17,0	17,5	18,0
Thermal conductivity $W/(m \cdot K)$	20°C				
	15,0				

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, non-magnetisable.

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.

Heat treatment

Soft annealing	Temperature	Cooling	Hardness
	1020 - 1120°C	Air, water	max. 325 HB

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Abrams Engineering Services GmbH & Co. KG
Hannoversche Str. 38 · 49084 Osnabrueck / Germany
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

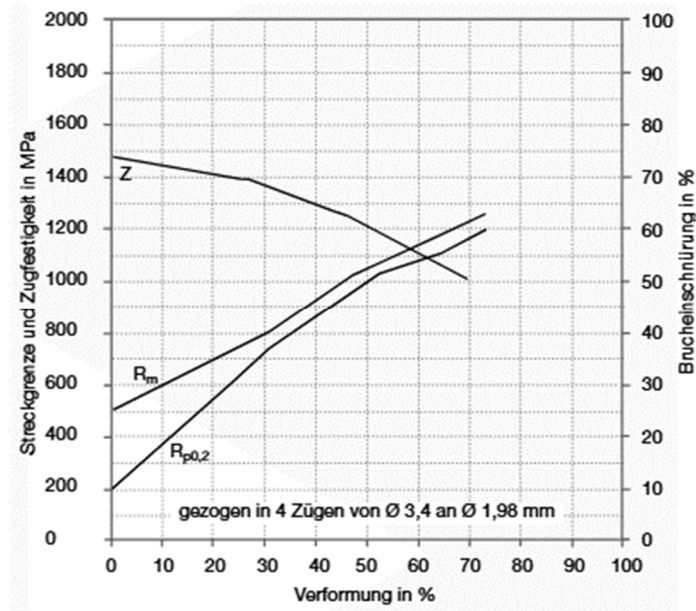
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Hardening diagram



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