

## 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 <sup>®</sup>	<a href="http://www.steel-guide.eu/alternatives/316L">www.steel-guide.eu/alternatives/316L</a>

## Specifications



€co-Präz<sup>®</sup> [€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 <sub>m</sub> (as received condition)	Approx. 690 N/mm <sup>2</sup>				
Working hardness	max. <20 HRC				
Thermal expansion coefficient 10 <sup>-6</sup> m/(m • 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 • 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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## Hardening diagram

