

STAINLESS STEEL AISI 316L

DIN X2CrNiMo18-14-3	En Nr. 1.4435	UNS (ASTM) -	AISI 316L							
Chemical composition (Weight %)	Fe Balance	C ≤ 0.03	Cr 17.0-19.0	Ni 12.5-15.0	Mo 2.5-3.0	Mn ≤ 2.0	Si ≤ 1.0	P ≤ 0.045	S ≤ 0.015	N ≤ 0.110
Main technological properties	<p>Grade 1.4435 is widely used in the chemical industry, it can often be found on the market with the supplement "BN2" and its relevant regulations. The significant presence of molybdenum in this grade enhances the resistance to chlorides, sulphuric acid and organic acids. This is the reason why stainless steel 1.4435, 316L, X2CrNiMo18-14-3 is often the best choice for applications demanding excellent corrosion resistance. In this alloy, the addition of certain alloying elements, such as nickel, the formation of δ-ferrite in the microstructure is reduced or completely eliminated. The absence of ferrite makes this steel non magnetic in soft temper, however, it may become magnetic with increasing cold working. Due to the higher molybdenum content, this grade provides a better pitting resistance than grade 1.4404. This steel can easily be welded by any conventional joining technique, except the oxyacetylene torch. Depending on the welding conditions, some residual ferrite may form along the welding line. There is no need for any post-weld heat treatment, when the alloy was welded in an annealed condition.</p>									
Typical dimensions	Thickness (mm)		Width (mm)		Length (mm)					
	Strip		0.10/0.20/0.25		300		2000			
	Strips in sheet		0.40/0.50/0.80		1000		2000			
Mechanical properties	Temper	Rm (N/mm ²)			Rp (N/mm ²)		A50mm (%)		Hv	
	½ hard	950-1150							250-390	
	hard	1100-1300							310-420	
Color	gray									
Typical usage	<p>AISI 316L is mainly used for the</p> <ul style="list-style-type: none"> • pressure gauges • various watch components • membranes for the chemical industry. 									
Surface	Special surface qualities upon request									
Flatness	Special requirement on the longitudinal or transversal flatness upon request									

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