STAINLESS STEEL AISI 316L

DIN	En Nr.	UNS (ASTM)	AISI
X2CrNiMo18-14-3	1.4435	-	316L

Chemical composition (Weight %)	Fe	C	Cr	Ni	Mo	Mn	Si	P	S	N
	Balance	≤ 0.03	17.0-19.0	12.5-15.0	2.5-3.0	≤ 2.0	≤ 1.0	≤ 0.045	≤ 0.015	≤ 0.110

Main technological properties

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 alloging elements, such as nickel, the formation of -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.

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/mm2)	Rp (N/mm2)	A50mm (%)	Hv
½ hard	950-1150			250-390
hard	1100-1300			310-420

Color

gray

Typical usage

AISI 316L is mainly used for the

- 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