



316

(UNS S31600) W. Nr. 1.4401

Chemical composition	C	Si	Mn	P	S	Cr	Ni	N	Mo	Fe
% Present (Max)	0.07	1.00	2.00	0.045	0.015	16.50-18.50	10.00-13.00	0.10	2.00-2.50	Bal

Alloy 316/316L (UNS S31600/ S31603) is a chromium-nickel-molybdenum austenitic stainless steel developed to provide improved corrosion resistance to Alloy 304/304L in moderately corrosive environments. It is often utilized in process streams containing chlorides or halides. The addition of molybdenum improves general corrosion and chloride pitting resistance. It also provides higher creep, stress-to-rupture and tensile strength at elevated temperatures. It is common practice for 316L to be dual certified as 316 and 316L. The low carbon chemistry of 316L combined with an addition of nitrogen enables 316L to meet the mechanical properties of 316. Alloy 316/316L resists atmospheric corrosion, as well as, moderately oxidizing and reducing environments. It also resists corrosion in polluted marine atmospheres. The alloy has excellent resistance to intergranular corrosion in the as-welded condition. Alloy 316/316L has excellent strength and toughness at cryogenic temperatures. Alloy 316/316L is non-magnetic in the annealed condition, but can become slightly magnetic as a result of cold working or welding. It can be easily welded and processed by standard shop fabrication practices.

Note: Values are in accordance with EN 10088 specifications. Actual mill certs available upon request.

