

316 / 316L STAINLESS

AUSTENITIC STAINLESS STEEL WITH ADDED MOLYBDENUM

PRODUCT DESCRIPTION

The introduction of molybdenum in the alloying process improves the corrosion resistance of **316** stainless steel. It is very similar to Type 304 and is almost as commercially popular - the main differences are that the alloy is stronger at elevated temperatures and corrosion resistance is better, especially in chloride environments. With excellent weldability, good machinability and excellent pitting resistance, 316 is used in the fabrication of pressure vessels and heat exchangers.

KEY FEATURES

- Improved corrosion resistance when compared to 304
- More suitable for chloride environments
- Good machinability
- 316 is stronger than 304 at elevated temperatures

APPLICATIONS

- Pressure vessels, heat exchangers
- Chemical containers, food preparation equipment
- Furnace parts, valves and pumps

CHEMICAL COMPOSITION (weight %)

	C	Cr	Mo	Si	P	S	Ni	Mn	Fe
Min		16.5	2.00				10.0		Bal
Max	0.08	18.5	2.50	1.00	0.05	0.02	13.0	2.00	Bal

MECHANICAL PROPERTIES

Tensile strength	520 - 680	MPa
Proof Stress	220 min	MPa
Elongation A5	40 min	%

PHYSICAL PROPERTIES

Density	8.00	kg/m ³
Melting Point	1400	°C
Modulus of Elasticity	193	GPa
Electrical Resistivity	0.074	x10 ⁻⁶ Ω.m
Thermal Conductivity	16.3	W/m.K
Thermal Expansion	15.9	x10 ⁻⁶ /K



AVAILABILITY

Round bar, flat bar, plate, sheet, wire, hexagon and tube

ABOUT 316L

Type 316L is a low carbon version of Type 316 which minimizes carbide precipitation due to welding.