

STAINLESS STEEL

316 Mo >2.5% - 1.4435



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Stainless Steel 316L Mo>2.5% - 1.4435 is a type of austenitic stainless steel that has a low carbon content and a high molybdenum content. It is also known as 316L UG or 316L modified. The elevated molybdenum content (greater than 2.5%) in 1.4435 provides enhanced corrosion resistance, especially in aggressive environments containing chlorides.

KEY FEATURES

- Excellent corrosion resistance
- Improved resistance to acids
- Chloride resistance
- Generally weldable
- Formability and fabrication

CHEMICAL PROPERTIES

Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)	Manganese (Mn)	Silicon (Si)	Nitrogen (N)	Phosphorus (P)	Carbon (C)	Sulphur (S)
17-19%	12.5-15%	2.5-3%	2%	1%	0.1%	0.045%	0.03%	0.02%

MECHANICAL PROPERTIES

Tensile strength (N/mm ²)	600
Yield strength (N/mm ²)	450
Elongation (% in 4D)	40
Hardness - Rockwell (HRB) max	94
Hardness - Brinell (HB) max	215

PHYSICAL PROPERTIES

Density (kg/m ³)	8000	
Modulus of elasticity (Gpa)	193	
Mean coefficient of thermal expansion	0-100°C (µm/m/°C)	17.2
	0-350°C (µm/m/°C)	17.8
	0-538°C (µm/m/°C)	18.4
Thermal conductivity	at 100°C (W/m.K)	15.0
	at 500°C (W/m.K)	20.8
Specific Heat 0-100°C (J/kg.K)	500	
Electrical resistivity (nΩ.m)	750	
Melting point (°C)	1450	

MARKET SECTORS



Food & Beverage Industry

Brewing and distillation, dairy processing



Chemical Processing

Processing equipment, reactors, vessels, piping



Marine Equipment

Boat fittings, hardware



Oil & Gas Industry

Platforms, piping, tubing



Pharmaceutical Industry

Equipment, storage, transportation vessels



Architectural Applications

Structural components, building facades, handrails, cladding