

# 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)	Silicone (Si)	Nitrogen (N)	Phosphorus (P)	Carbon (C)	Sulphur (S)
<b>17-19%</b>	<b>12.5-15%</b>	<b>2.5-3%</b>	<b>2%</b>	<b>1%</b>	<b>0.1%</b>	<b>0.045%</b>	<b>0.03%</b>	<b>0.02%</b>

#### MECHANICAL PROPERTIES

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

#### PHYSICAL PROPERTIES

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

#### 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