

STAINLESS STEEL

316 Ti - 1.4571



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Stainless steel 316Ti, also known as 1.4571, is a titanium-stabilised austenitic stainless steel. The "316" designation indicates that it belongs to the 300 series of stainless steels, which are characterised by their austenitic crystalline structure. The addition of titanium (Ti) provides stabilisation against sensitisation and intergranular corrosion, making it suitable for elevated temperature applications.

KEY FEATURES

- Excellent corrosion resistance
- Stability in high temperatures
- Good weldability
- Formability and fabrication
- Good mechanical properties

CHEMICAL PROPERTIES

Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)	Manganese (Mn)	Silicone (Si)	Titanium (Ti)	Nitrogen (N)	Carbon (C)	Phosphorus (P)	Sulphur (S)
16.5-18.5%	10.5-13.5%	2-2.5%	2%	1%	0.2-0.7%	0.1%	0.08%	0.045%	0.03%

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)	15.9
	0-350°C (µm/m/°C)	16.2
	0-538°C (µm/m/°C)	17.5
Thermal conductivity	at 100°C (W/m.K)	16.3
	at 500°C (W/m.K)	21.5
Specific Heat 0-100°C (J/kg.K)	500	
Electrical resistivity (nΩ.m)	740	
Melting point (°C)	1450	

MARKET SECTORS



Food & Beverage Industry

Tanks, conveyors, mixers, processing machinery



Chemical Processing

Reactors, vessels, piping systems



Oil & Gas Industry

Platforms, pipelines, tubing, valves



Heat Exchangers

HVAC systems, chemical processing, power generation



Pharmaceutical Industry

Processing equipment, mixing, storage



Automotive Industry

Exhaust systems, component parts