

Stainless Steel

1.4541 (321)

Datasheet Updated
05 August 2021

RANGE

Bar Products	Imperial Sizes	Metric Sizes
Round Bar Bright Drawn H9	1/8" - 7/8"	4mm - 25mm
Round Bar Smooth Turned H9/H10	1" - 3"	30mm
Round Bar Peeled K12/K16	3 1/4" - 6"	-
Sheet Size	Finish	Thicknesses
2500 x 1250	2B	1.5mm - 3.0mm

SPECIFICATIONS

Commercial	321
EN	1.4541

A titanium-stabilised chromium-nickel austenitic stainless steel with very good corrosion resistance.

CHEMICAL COMPOSITION

Element	% Present
Chromium (Cr)	17.00 - 19.00
Nickel (Ni)	9.00 - 12.00
Molybdenum (Mo)	0.00 - 0.75
Copper (Cu)	0.00 - 0.75
Titanium (Ti)	0.00 - 0.70
Carbon (C)	0.00 - 0.08
Manganese (Mn)	0.00 - 2.00
Silicon (Si)	0.25 - 1.00
Phosphorous (P)	0.00 - 0.04
Sulphur (S)	0.00 - 0.03
Nitrogen (N)	0.00 - 0.10

ALLOY DESIGNATIONS

- 1.4541
- X6CrNiTi18-10
- Type 321
- AISI 321
- UNS 32100
- ASTM A40

SUPPLIED FORMS

- Bar
- Sheet

APPLICATIONS

- Exhaust Systems
- Manifolds
- Chemical Plant
- Heat Exchangers
- Piping
- Furnace Parts
- Storage Tanks
- Pressure vessels
- Industrial boilers

CHARACTERISTICS

- Good overall corrosion resistance
- Excellent resistance to intergranular corrosion
- Great weldability
- Good resistance to creep and oxidation at high temperatures
- Excellent toughness even down to cryogenic temperatures
- High creep and stress rupture properties than Type 304
- Excellent resistance to oxidation

MECHANICAL PROPERTIES

Bar

Property	Value
0.2% Proof Stress	205 N/mm ²
Elongation A50 mm	40 %
Hardness Brinell	217 max HB

ASTM A240

Sheet

Property	Value
Proof Stress	205 Min MPa
Tensile Strength	515 Min MPa
Elongation A50 mm	35 Min %

DISCLAIMER

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