



STAINLESS STEEL 321

Key Features

Similar composition to 304 Stainless Steels but with addition of Titanium

Good creep and oxidation resistance make this a cost effective material for a number of applications

IMPORTANT

We will manufacture to your required mechanical properties.

key advantages to you, *our customer*



0.025mm to 21mm
(.001" to .827")



Order 3m to 3t
(10 ft to 6000 Lbs)



Delivery:
within 3 weeks



Wire to your spec



E.M.S available



Technical support

STAINLESS STEEL 321 available in:-

- Round wire
- Bars or lengths
- Flat wire
- Shaped wire
- Rope/Strand

Packaging

- Coils
- Spools
- Bars or lengths



STAINLESS STEEL 321



alloy wire[®]
international

| Chemical Composition | | | Specifications | Key Features | Typical Applications |
|----------------------|-------|-------|---|---|--|
| Element | Min % | Max % | ASTM A313 ASTM A240 ASTM A479 BS EN 10088-3:2014 Designations W.Nr. 1.4541 UNS S32100 AWS 133 | Similar composition to 304 Stainless Steels but with addition of Titanium Good creep and oxidation resistance make this a cost effective material for a number of applications | Refinery Equipment Heat Exchangers Engineered components Food Processing Waste Treatment |
| C | - | 0.08 | | | |
| Mn | - | 2.00 | | | |
| P | - | 0.04 | | | |
| S | - | 0.03 | | | |
| Si | 0.40 | 1.00 | | | |
| Cr | 17.00 | 19.00 | | | |
| Ni | 9.50 | 12.00 | | | |
| N | - | 0.10 | | | |
| Mo | - | 0.50 | | | |
| Ti | 5 x C | 0.70 | | | |
| Fe | BAL | | | | |

| | | |
|---------------------------------|----------------------------|--|
| Density | 8.03 g/cm ³ | 0.29 lb/in ³ |
| Melting Point | 1370 °C | 2500 °F |
| Coefficient of Expansion | 16.6 µm/m °C (20 – 100 °C) | 9.2 x10 ⁻⁶ in/in °F (70 – 212 °F) |
| Modulus of Rigidity | 78 kN/mm ² | 11300 ksi |
| Modulus of Elasticity | 193 kN/mm ² | 28000 ksi |

| Heat Treatment of Finished Parts | | | | | |
|-------------------------------------|----------------|-------------|-----|-----------|---------|
| Condition as supplied by Alloy Wire | Type | Temperature | | Time (Hr) | Cooling |
| | | °C | °F | | |
| Annealed or Spring Temper | Stress Relieve | 450 | 840 | 1 | Air |

| Properties | | | | |
|---------------|--------------------------|-----------|-------------------------------|--------------|
| Condition | Approx. tensile strength | | Approx. operating temperature | |
| | N/mm ² | ksi | °C | °F |
| Annealed | 600 – 800 | 87 – 116 | -200 to +300 | -330 to +570 |
| Spring Temper | 1300 – 2200 | 189 – 319 | -200 to +300 | -330 to +570 |

The above tensile strength ranges are typical. If you require different please ask.