



STAINLESS STEEL 321

Key Features

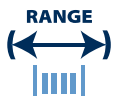
Similar composition to 304 Stainless Steels but with addition of Titanium

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

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	<800	<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.