



STAINLESS STEEL 316

Key Features

Better corrosion resistance and non-magnetic properties than 302 & 304 stainless

Better pitting and crevice corrosion resistance than 302 & 304 stainless

IMPORTANT

We will manufacture to your required mechanical properties.

key advantages
to you, *our customer*

STAINLESS STEEL 316 available in:-

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

Packaging

- Coils
- Spools
- Bars or lengths



STAINLESS STEEL 316

Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	ASTM A313 ASTM A580 BS 970 BS 2056 Designations W.Nr. 1.4401 W.Nr. 1.4404 UNS S31600 AWS 162	Better corrosion resistance and non-magnetic properties than 302 & 304 stainless Better pitting and crevice corrosion resistance than 302 & 304 stainless	More suited to Marine, Food and Medical applications than 302 and 304 stainless Food processing Springs Engineered components Wire mesh Wire cloth Hose braiding
C	-	0.07			
Mn	-	2.00			
P	-	0.045			
S	-	0.03			
Si	-	1.00			
Cr	16.00	18.50			
Ni	9.50	13.00			
Mo	2.00	2.50			

Density	8.0 g/cm ³	0.289 lb/in ³
Melting Point	1398 °C	2555 °F
Coefficient of Expansion	17.5 µm/m °C (20 – 100 °C)	9.7 x 10 ⁻⁶ in/in °F (70 – 212 °F)
Modulus of Rigidity	70.3 kN/mm ²	10196 ksi
Modulus of Elasticity	187.5 kN/mm ²	27195 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	250	480	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.