



## 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  <b>Designations</b>  W.Nr. 1.4401 W.Nr. 1.4404 UNS S31600 AWS 162	Better corrosion resistance and non-magnetic properties than 302 and 304 stainless  Better pitting and crevice corrosion resistance than 302 and 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			

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