



## TITANIUM Gr. 1

### Key Features

Properties and chemical composition are very similar to Grade 2, but with tighter controls on O, Fe and H contents

One of the softer and more ductile grades of pure Titanium

Good strength to weight ratio

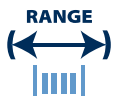
Corrosion resistant in oxidizing and mildly reducing environments

Good formability

#### 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

### TITANIUM Gr. 1 available in:-

- Round wire

### Packaging

- Coils
- Spools



# TITANIUM Gr. 1



Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	ASTM B348 ASTM F67	Properties and chemical composition are very similar to Grade 2, but with tighter controls on O, Fe and H contents  One of the softer and more ductile grades of pure Titanium  Good strength to weight ratio Corrosion resistant in oxidizing and mildly reducing environments Good formability	Aerospace Automotive Chemical Processing
N	-	0.03			
C	-	0.08			
H	-	0.01	<b>Designations</b>		
Fe	-	0.20	W.Nr. 3.7025		
O	-	0.18	UNS R50250		
Residuals	-	0.40	AWS 150		
Ti	BAL				

<b>Density</b>	4.51 g/cm <sup>3</sup>	0.163 lb/in <sup>3</sup>
<b>Melting Point</b>	1670°C	3040°F
<b>Coefficient of Expansion</b>	8.6 µm/m °C (20 – 100 °C)	4.8 x 10 <sup>-6</sup> in/in °F (70 – 212 °F)
<b>Modulus of Rigidity</b>	40 – 45 kN/mm <sup>2</sup>	5800 – 6530 ksi
<b>Modulus of Elasticity</b>	105 – 120 kN/mm <sup>2</sup>	15230 – 17400 ksi

Heat Treatment of Finished Parts					
Condition as supplied by Alloy Wire	Type	Temperature		Time (Hr)	Cooling
		°C	°F		
Annealed	Stress Relieve	480	900	0.5 - 2	Air
Spring Temper	Stress Relieve	250	480	0.5	Air

Properties				
Condition	Approx. tensile strength		Approx. operating temperature	
	N/mm <sup>2</sup>	ksi	°C	°F
Annealed	300 - 400	44 - 58	-200 to +400	-330 to +750
Spring Temper	550 - 850	180 - 123	-200 to +400	-330 to +750

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