

# Ti64 Titanium

Very Stiff, High Performance

Cost-effective

A high temperature, high performance, high strength titanium alloy with quick build time.



## Benefits

- Excellent mechanical properties
- Corrosion resistant
- Cost-effective
- Biocompatible

## Applications

- Medical applications
- Low-volume production
- Aerospace and automotive applications
- Jewellery



## Physical Properties

Colour	Grey
Type	Titanium

## Mechanical Properties

	As Built <sup>1</sup>	Heat Treated <sup>2</sup>
Ultimate tensile strength, $R_m$	1290 ± 80MPa	1070 ± 80 MPa
Yield Strength, $R_{p0.2}$	1150 ± 80MPa	1010 ± 80 MPa
Elongation at break, $A$	8 ± 4 %	14 ± 4%
Density (g/cm <sup>3</sup> )	4.47	

## Hardness

	As Built	Heat Treated
Vickers Hardness HV <sup>3</sup>	Typ. 320 ± 15 HV5	n.a.

<sup>1</sup> Tensile testing according to ISO 6892 -1:2009 (B) Annex D, proportional test pieces, diameter of the neck area 5mm (0.2 inch), original gauge length 25mm (1 inch).

<sup>2</sup> Specimens were heat treated at 800°C for 2 hours in argon inert atmosphere

<sup>3</sup> Hardness measurement according to standard EN ISO 6507-1:2005 with load 5kgf (HV5)

## Material Composition

Component	Indicative Value (Weight in %)
Al	5.50 – 6.50
V	3.50 – 4.50
O	0.150
N	0.040
C	0.080
H	0.012
Fe	0.250
Y	0.005
Other elements each	0.10
Other elements total	0.40
Ti	Balance

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