

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 ¹	Heat Treated ²
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 ³)	4.47	

Hardness

	As Built	Heat Treated
Vickers Hardness HV^3	Typ. 320 ± 15 HV5	n.a.

¹ 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).

² Specimens were heat treated at 800°C for 2 hours in argon inert atmosphere

³ 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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