



TECHNICAL DATASHEET

Ti6Al4V – Grade 5 FT 008 – Version 0

Ti6Al4V is an alpha-beta titanium alloyed with aluminium and vanadium. Its mechanical properties mean it is the most widely-used titanium, predominantly for aeronautic applications. It offers an excellent compromise between mechanical resistance, toughness and ductility. Furthermore, its machinability makes it easy to weld.

APPLICATIONS	ADVANTAGES
Aeronautic Industrial	Fatigue resistance Corrosion resistance Ductility Weldability
STANDARDS	SHAPES
ASTM B348 ASTM B265	<p>BAR</p> <p>Diameter 1-110 mm</p> <p>Length 2800-3500 mm</p> <p>Tolerance Ø≤18 mm: h7-h9 – Ø>18 mm: h8-h11</p> <hr/> <p>SHEET/ PLATE</p> <p>Thickness 0.5-120 mm</p> <p>Typical dimensions 914 x 2438 mm / 1215 x 3048 mm 1000 x 2000 mm / 1250 x 2500 mm</p>

➤ CHEMICAL COMPOSITION

%	O	Fe	C	H	N	Al	V	Ti
min						5.5	3.5	residue
max	0.20	0.40	0.08	0.015	0.05	6.75	4.5	



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➤ MECHANICAL PROPERTIES

ASTM B348 bars

Dimension Diameter	Rm Tensile strength (min MPa)	Rp0.2 Yield strength (min MPa)	4D elongation (% min)	Necking (% min)
Up to 76.0 mm	895	828	10	25

ASTM B265 sheets and plates

Dimension thickness (x)	Rm Tensile strength (min MPa)	Rp0.2 Yield strength (min MPa)	4D elongation (% min)	Bend test Mandrel radius
Up to 1.8 mm	895	828	10	4.5 T*
1.8-7.45 mm	895	828	10	5 T*

* T = thickness

➤ PHYSICAL PROPERTIES

Density (g/cm ³)	4.43
Hardness (HRC)	33
Modulus of elasticity at 20°C (N/mm ²)	114 x10 ³
Thermal conductivity at 20°C (W/m °C)	6.7
Mean coefficient of thermal expansion at 20-200°C (mm °C)	9 x10 ⁻⁶
Beta transus (°C)	996
Fusion temperature (°C)	1650

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