TorqBolt Inc.

MATERIAL GRADE DATA SHEET

TITANIUM GR.5

TITANIUM ALLOY

CORROSION RESISTING ALLOYS WITH LOW DENSITY

Ti-6Al-4V alloy is the most widely used titanium alloy of the alpha-plus-beta class, and is also the most common of all titanium alloys. The alloy is castable and is utilized "as cast" in sporting goods. The wrought material is used in aerospace, medical, and other applications where moderate strength, good strength to weight, and favorable corrosion properties are required. The alloy is available as castings, wire, bar, plate, sheet, forgings, rings, and billet.

Chemical Properties

C	Fe	O	H	N	Al	V	Y	Ti
0.08 Max	0.40 Max	0.2Max	0.125Max	0.05Max	5.5-6.75	3.5-4.5	0.005Max	Balance

Minimum Mechanical Properties

Yeild strength	Tensile strength	Elongation	Reduction	
Min 0.2% Mpa	Min Mpa	Min %	Min %	
828	895	10	25	As Specified
1034	1103	10	20	Solution Treated & aged
828	895	6	10	As Cast

Typical Mechanical Properties

Yeild strength	Tensile strength	Elongation	Reduction	
Min 0.2% Mpa	Min Mpa	Min %	Min %	
910	1000	18	40	As Specified
970	1110	15	45	Solution Treated & aged
895	1000	5	15	As Cast

Specification:

AMS 4911
AMS 4920
AMS 4928
AMS 4965, AMS 4963, and AMS 4967 (Capable of) AMS-T-9047
ASTM B348 (Grade 5)
ASTM B367 (Grade 5)
ASTM F1472
AWS A5.16 (ERTi-5)

Product Form:

Strip, Sheet, and Plate, Annealed
Forgings, Alpha-Beta or Beta Processed, Annealed
Bar, Wire, Forgings, Ring, Annealed
Bar, Wire, Forgings, Ring, Solution Treated & Aged
Bar and Billet, Annealed
Castings
Wrought Alloy for Surgical Implants
Weld Wire

Equivalent Designation

UNS R56400
En Name TiAl6V4
W.Nr. 3.7165
BS TA10-13; TA28
AFNOR T-A6V
Aerospace German WL 3.7164
Italian(UNI 10221) TiAl6V4-Type 5

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