6AL-4V GRADE 5 TITANIUM

The most widely used of all titanium alloys with many aerospace, industrial and medical applications. 6AL/4V Grade 5 titanium is heat treatable in the annealed condition.

List of some common specs: *AMS 4911, AMS 4928, AMS 6931, ASTM B-265, ASTM B-348, ASTM B-381, ASTM F-1472, MIL-T-9046J, MIL-T-9047G*

Principle Uses	Airframe and turbine engine parts (blades, discs, wheels, spacer rings), ordinace equipment, pressure vessels, rocket's motor casaes, and other aerospace applications
Available Forms	Sheet, Plate, Round Bar, Flat Bar, Wire, & Billet
Type Structure	Alpha-Beta

Chemistry Limits (%)

Aluminum	5.5 - 6.75
Vanadium	3.5 - 4.5
Carbon - Max	0.1
Oxygen - Max	0.2
Iron - Max	0.4
Nitrogen - Max	0.05
Hydrogen - Max	0.015

Typical Minimum Mechanical Properties

(*as shipped in the Annealed Condition*)

Ultimate Tensile Strength - ksi	130.0
Yield Strength - ksi	120.0
Elongation %	10.0
Reduction of Area %	20.0

Typical Physical Properties

Density (lbs/in^3)	0.160
Elastic Modulus (x106 psi)	16.5
Beta Transus Temp (^{o}F)	1830°F +/-25°F
Weldability	Fair
Hardness	Rc: 30/34
Annealing Sheet/Plate	1300-1600°F, 15-60 minute air cool
Annealing Bar/Forgimgs	1300-1450°F, 1-2 hour air cool

Note that this alloy is also capable of S.T.A. after proper additional heat treating.

** This informatiomn is provided as an "Informational only" reference and is not binding. Please reference the titanium material specifications for more detailed properties and complete material information.*