

6AL-4V ELI (Extra Low Interstitial) GRADE 23 TITANIUM

6AL/4V ELI Grade 23 titanium was developed for improved fracture toughness and improved ductility over the standard 6AL/4V Grade 5 titanium alloy. It is used primarily in medical and aerospace applications.

List of some common specs: AMS 4907, AMS 4930, AMS 6932, ASTM B-265, ASTM B-348, ASTM F-136, MIL-T-9046J, MIL-T-9047G

Principle Uses	Surgical, Orthopedic, and Dental applications such as; tools, implants, equipment. & more
Available Forms	Sheet, Plate, Round Bar, Flat Bar, Wire, & Billet
Type Structure	Alpha-Beta

Chemistry Limits (%)

Aluminum	5.5 - 6.5
Vanadium	3.5 - 4.5
Carbon - Max	0.08
Oxygen - Max	0.13
Iron - Max	0.25
Nitrogen - Max	0.05
Hydrogen - Max	0.0125

Typical Minimum Mechanical Properties

(as shipped in the Annealed Condition)

Ultimate Tensile Strength - ksi	130.0
Yield Strength - ksi	120.0
Elongation %	10.0

Typical Physical Properties

Density (lbs/in ³)	0.160
Elastic Modulus (x106 psi)	16.5
Beta Transus Temp (°F)	1820°F +/-25°F
Weldability	Fair
Hardness	Rc: 30/34
Annealing Sheet/Plate	1300-1600°F, 15-60 minute air cool
Annealing Bar/Forgings	1300-1450°F, 1-2 hour air cool

** This information 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.*