

Titanium 6AL-4V, also known as Ti-6Al-4V or Grade 5 titanium, is a popular titanium alloy. It is composed of 90% titanium, 6% aluminum, and 4% vanadium. This alloy offers an excellent balance of strength, weight, and corrosion resistance, making it widely used in various industries.

Chemical Composition

Element	Maximum Unless Range is Specified
Al	5.50
V	3.50-4.50
C	.08
Fe	.30
O	.20
N	.05
H	.0125
Ti	Balance

Physical Properties

Property	Maximum Unless Range is Specified
Density,lbs/in ³	0.16
Coefficient of thermal expansion $\mu\text{in/in}^\circ\text{F}$	4.78
Thermal Conductivity ,BTU-in/hr-ft ² - $^\circ\text{F}$	46.5
Melting Point (Deg $^\circ\text{F}$)	2920-3020
Modules of Elasticity ,ksi	16,500
Poissons Ratio	0.33
Shear Modulus,ksi	6,380
Specific Heat ,BTU/lb- $^\circ\text{F}$	0.126

Mechanical Properties

Property	Maximum Unless Range is Specified
Tensile Strength,ksi	130
Yield Strength,ksi	120
Elongation in 2"	10%
Reduction of Area Min	25%
Hardness, HRC	36

The material properties in this datasheet are provided by one of the manufacturers collaborating with Naxtry. Please note that material properties may slightly vary among different manufacturers. Naxtry can accommodate customer requests for specific materials or brands.