

Product	Description	Properties
<u>Titanium</u>		
6Al-4V	6Al-4V is an alpha-beta titanium alloy. It is one of the most commonly used of the alpha-beta titanium alloys, and it is especially useful in high corrosion environments. The 6Al-4V is strengthened by the addition of aluminum and vanadium as alloying components	High strength up to 600°F, high corrosion resistance, high strength-to-weight ratio, limited hardenability
6Al-4V ELI	6Al-4V ELI is an all purpose alpha-beta titanium alloy. This ELI variant is useful in situations where fracture is critical. Like the 6Al-4V, the ELI (Extra Low Interstitial) contains aluminum and vanadium for increased strength	Moderately high tensile strength, excellent fracture toughness, high corrosion resistance, good fatigue strength
CP1	CP1 is a stronger titanium than the CP2 and CP3. It can be cold formed at the expense of lower ductility. CP1 can be used for a variety of applications that range from medical to aerospace.	High resistance to corrosion among many environments, high strength, low ductility
CP2	CP2 has a higher strength than CP3 and CP4, but its formability capabilities are lower. It is useful in situations that require moderate strength.	Moderate strength, low formability relative to CP3 and CP4, great corrosion resistance.
CP3	CP3 has moderate strength properties. It has both excellent welding and forming capabilities. Similar to the other commercially pure titanium family materials, CP3 has a wide range of end applications.	Moderate strength, great resistance to oxidation, great resistance to corrosion
CP4	CP4 is the softest of the commercially pure titanium family. Similar to the other commercially pure titanium family materials, CP4 has a wide range of end applications	Low strength, high ductility, high impact resistance, high corrosion resistance

Ti 15Mo	Ti 15Mo is a beta titanium, and is a highly versatile and biocompatible material that is capable of being applied to a large variety of end uses. Its non-magnetic properties allow patients with implants made from Ti 15Mo to be examined on MRI, NMRI, and MRT equipment.	Low elasticity, good ductility, high resistance to corrosion, high strength
Ti 6Al-7Nb	Similar in properties as Ti Al6Al-4V, the Ti 6Al-7Nb is an alpha-beta titanium alloy developed originally for medical purposes, especially for use in femoral components hip prostheses	High strength, high corrosion resistance, highly biocompatible
Ti 3Al-2.5V	Ti-3Al-2.5V is a titanium alloy with characteristics optimal for situations in which low weight is necessary. Its high strength-to-weight ratio gives it an advantage over substitute materials	Low weight, high strength, excellent cold formability

Specs	Markets	Applications
AMS 4911, AMS 4920, AMS 4928, AMS 4935, AMS 4965, AMS 4967, ASME SB 265, ASME SB 348, ASME SB 861, ASTM B 265, ASTM B 348, ASTM B 861, UNS R56400	Aerospace, Medical, Automotive & Transportation, Energy	Air frames, jet and engine rocket components, prosthetic implants, geothermal-well casings, automotive components
AMS-4907, AMS-4930, AMS-4931, AMS-6932, AMS-T-9046, AMS-T-9047, MIL-T-9046, MIL-T-9047, ASTM-F-136, BMS-7-269	Aerospace, Medical, Automotive & Transportation, Energy	Air frames, jet and engine rocket components, prosthetic implants, geothermal-well casings, automotive components
AMS 4901, ASTM B348, AMS-T-9047, AMS 4921, ASTM F67, MIL-T-9046, ASTM B265, AMS-T-9046, MIL-T-9047	Aerospace, Medical, Defense, Industrial	Cryogenic vessels, heat exchangers, condenser tubing, bone plates, artificial hearts, pacemakers, artificial hip joints
AMS 4901, ASTM B348, AMS-T-9047, AMS 4921, ASTM F67, MIL-T-9046, ASTM B265, AMS-T-9046, MIL-T-9047	Aerospace, Medical, Defense, Automotive & Transportation, Industrial, Energy	Dental implant prostheses components, bridges, artificial knee joints, cardiac valve prostheses
AMS 4901, ASTM B348, AMS-T-9047, AMS 4921, ASTM F67, MIL-T-9046, ASTM B265, AMS-T-9046, MIL-T-9047	Aerospace, Medical, Defense, Automotive & Transportation, Energy	Condensers, evaporators, reaction vessels, orthodontic appliances, woven wire mesh, screws for fracture fixation
AMS 4901, ASTM B348, AMS-T-9047, AMS 4921, ASTM F67, MIL-T-9046, ASTM B265, AMS-T-9046, MIL-T-9047	Medical, Automotive & Transportation, Industrial, Defense	Cryogenic vessels, heat exchangers, condenser tubing, bone plates, artificial hearts, pacemakers, artificial hip joints

ASTM F2066	Medical	Joint replacements, dental implants, fusion hardware, spinal rods
UNS R56700, ASTM F1295	Medical, Aerospace	Artificial hip joints, artificial knee joints, cardiac valve prostheses, pacemakers, artificial hearts, dental devices, aircraft materials
AMS 4943, AMS 4945, AMS 4944, DMS 2241, MMS 1205, AS5620	Aerospace, Defense, Medical, Automotive & Transportation	Aircraft fuel systems, hydraulic systems, bicycle frames, military aircraft, golf clubs, tennis rackets

Forms

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Plate, Tubing, Wire,  
Sheet, Strip,  
Coil, Profile

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