Ti 6242

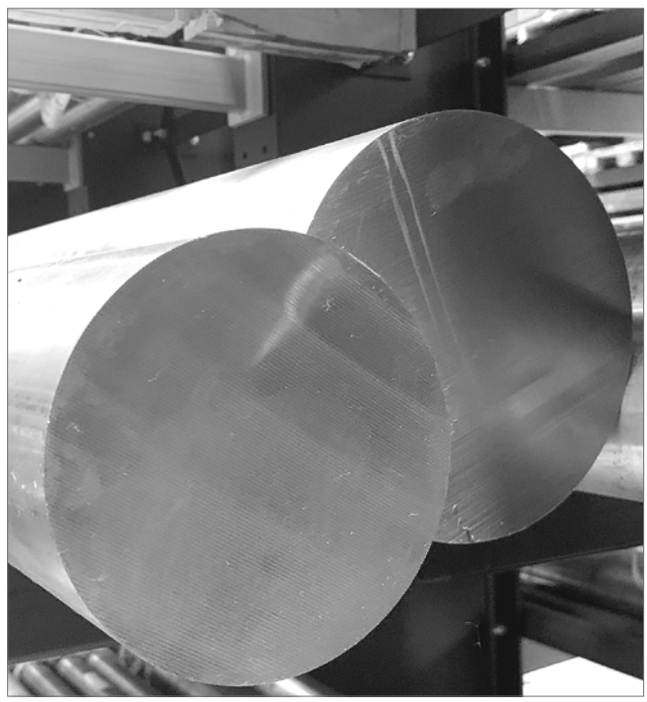
Smiths Advanced Metals

Near-Alpha Titanium

Outstanding performance characteristics to give designers improved options.

6-2-4-2 (6AL-2SN-4ZR-2MO) titanium alloy combines outstanding mechanical strength and stability.

Creep resistance is also impressive, performing at temperatures as high as 538° C (1000° F). Machining and forging characteristics for the alloy are very similar to Grade 5 titanium (Ti-6Al-4V). These performance characteristics allow customers to create components that work effectively at much higher working temperatures. We stock 6-2-4-2 titanium bars in the annealed condition and in various sizes to suit your requirements.



Grades / Specifications

- AMS4975
- AMS4976
- MSRR 8662
- 3.7144
- 6Al-2Sn-4Zr-2Mo
- UNS R54620

Benefits

- Excellent resistance to corrosion
- Good machinability
- High toughness
- Outstanding creep resistance

Key Applications

- Gas turbine engines
- Aerospace structural components
- Motorsport components
- Impellers & turbines

*Chemical Composition (weight %)

	Ti	C	N	O	Fe	Al	Sn	Zr	Mo	Si	H	Y	Others (each)	Others (total)
min.	Bal					5.50	1.80	3.60	1.80	0.06				
max.	Bal	0.05	0.05	0.15	0.10	6.50	2.20	4.40	2.20	0.10	0.0125	0.005	0.10	0.30

* As per AMS 4975

Mechanical Properties

	Minimum
UTS, MPa (ksi)	896 (130)
0.2% PS, MPa (ksi)	827 (120)
Elongation, % in 51mm GL	10
Reduction of Area, %	25

* Properties as per AMS 4975

For High Performance Applications

6242 titanium alloy finds use in high-performance applications throughout industry.

The alloy is lightweight with excellent mechanical strength, which provides designers and engineers with options, particularly in market sectors such as motorsport and aerospace. Strength to weight ratios are critical in these markets, and both titanium and aluminium feature heavily in the manufacture of high-performance components and structures.

Stratton Business Park,
London Road, Biggleswade,
Bedfordshire SG18 8QB
Tel: +44 (0) 1767 604710