

TI-6Al-2Sn-4Zr-6Mo (6-2-4-6)

Technical Datasheet



Service. Quality. Value.

Titanium Alloy

Typical Applications

- Gas turbine engine components
- High performance racing engine components
- Oil and gas production equipment

Product Description

6-2-4-6 (a stronger derivative of 6-2-4-2) is an alpha-beta titanium alloy offering very high mechanical strength with good retention up to 450°C. The alloy is heat treatable and deep hardenable.

Weldability

The weldability of 6-2-4-6 alloy is limited.

Material Specifications

- ASTM UNS R56260
- AMS 4981
- MIL T - 9047

Availability

Round bar

Corrosion Resistance

Corrosion resistance is good. The material is approved for sour service in the NACE MR-01-75 standard.

Chemical Composition (weight %)

Weight (%)	C	N	Fe	O	Al	Sn	Zn	Mo	H
Max	0.04	0.04	0.15	0.5	5.5	1.75	3.5	5.5	0.0125

Mechanical Properties (minima at RT for Annealed Bar)

UTS, MPa	1172
0.2% PS, MPa	1103
Elongation % in 51mm GL	10
Reduction in area, %	20L 15T
Hardness, HRC	39

L = Longitudinal
T = Traverse

Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

UK Service Centres:

Smiths Belfast 02895 908 897
Smiths Biggleswade 01767 604 704
Smiths Birmingham 0121 728 4940
Smiths Bristol 0117 971 2800
Smiths Chelmsford 01245 466 664
Smiths Gateshead 0191 469 5428
Smiths Horsham 01403 261 981

Smiths Leeds 0113 307 5167
Smiths Manchester 0161 794 8650
Smiths Norwich 01603 789 878
Smiths Nottingham 0115 925 4801
Smiths Redruth 01209 315 512
Smiths Verwood 01202 824 347
Main Office 0845 527 3331

Quality & Testing:



www.smithmetal.com info@smithmetal.com

All information in our data sheet is based on approximate testing and is stated to the best of our knowledge and belief. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of trading.