

DATA SHEET

TI-6AL4V-ELI | ASTM F136

Major specifications

UNS R56407 | Titanium Grade 23 | ISO 5832-3

Product forms

Round Bars

The current Stock Range can be found on www.sd-metals.com. Further dimensions available upon request.

Key features

Ti-6Al4V-ELI (Extra Low Interstitial) is suitable for use in the biomedical and medical fields as well as for a wide range of industrial applications. In this alloy, the interstitial elements such as oxygen, carbon, and iron are deliberately kept low. Ti 6Al4V-ELI thus exhibits improved fracture toughness and ductility. Ductility (elasticity, formability) improves at low temperatures, which is why Ti-6Al4V-ELI is also used in cryogenic applications (cooling and freezing applications).

Areas of application

Orthopedic implants, surgical instruments, bone screws and plates, medical devices, cryogenic applications, and some components used in aviation and aerospace technology.

CHARACTERISTIC

Chemical composition limits in %

Ti	Rest
Al	5,50 - 6,50
V	3,50 - 4,50
Fe	max. 0,25
O	max. 0,13
C	max. 0,08

Physical constants and thermal properties

Density	4,47 g/cm ³
Melting point	1649 °C
Beta transus temperature	977 ± 4 °C
Thermal conductivity at 20 °C	6,6 W/ m°C

Mechanical properties (room temperature)

Yield strength	min. 828 MPa
Tensile strength	min. 895 MPa
Elongation	min. 10 %

All information is subject to change without notice.
The properties correspond to the material in the heading. They may vary for other specifications. Please contact us for more details.

Do you have any questions? Contact us:

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