

Technical datasheet

Ti-6AL4V | WL 3.7164

Major specifications

Grade 5 AMS 4928 ABS 5326C + AIMS 03-18-004 ABS 5453 ASNA 3304

3.7165 AMS 4911 ABS 5125A + ASTM B265 ASNA 3307

Available product forms

Round bars in WL 3.7164 Sheets and plates in WL 3.7164 Sheets and plates in 3.7165

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

Key features

Ti-6Al4V Grade 5 was originally developed for aviation and aerospace applications. Due to the combination of excellent strength, low weight, and excellent corrosion resistance, this alloy is now used in numerous applications, making it one of the most widely used titanium alloys today. It is also applied in the areas of sports, marine technology, and medical technology. Another advantage of Ti-6Al4V Grade 5 when annealed is that it is suitable for use at temperatures up to 400°C and is easy to forge, form, and weld.

Applications

- aircraft engine intake housings
- compressor blades
- disks
- hubs and spacers
- airframe components

- offshore oil and gas equipment
- power generation industry
- motorsport/automotive components
- consumer products

Chemical properties

Composition - limits in %

Al	V	Fe	0	Ti
5,50 - 6,57	3,5 - 4,5	max. 0,30	max. 0,20	Rest

Physical and thermal properties

Density	4,52 g/cm ³	Beta transus temperature	980 ± 4°C
Melting temperature	1648 °C	Thermal conductivity at 20°C	6,7 W/ m°C

Mechanical properties (room temperature)

	Yield strength	Tensile strength
0,30-6,00 mm thickness	min. 870 MPa	min. 920 MPa
6,00-100,00 mm thickness	min. 830 MPa	min. 900 MPa
Elongation		max. 10 %

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