Technical datasheet

Ti Grade 1 / W-Nr. 3.7025

Commercially pure, unalloyed titanium offering optimum ductility and cold formability.

Available products

Product formSize range fromSize range toSheet/plate0.4 mm thickness30.0 mm thickness

Chemical composition (%)

Ti	Fe	С	0	N	H
Balance	0.20 max	0.08 max	0.18 max	0.03 max	0.015 max

Major specifications

ASTM B265, F67 UNS R50250 ISO 5832-2

Physical properties

Density 4.51 g/cm³ Beta transus temperature 888 ± 4 °C Melting point 1670°C

Mechanical properties – per ASTM B265

Yield strength 138-310 MPa
Tensile strength 240 MPa
Elongation 24 % min

Key attributes

Commercially pure titanium Grade 1 has high impact toughness, moderate strength and optimum ductility and cold formability. It has the highest cold formability of the available titanium grades and is suitable for deep drawing. It has excellent general and sea water corrosion resistance and offers high corrosion resistance in oxidizing, neutral and mildly reducing media including chlorides. The low density of titanium (approximately half that of nickel-based alloys), high strength to weight ratio and corrosion resistance make it the ideal material for many corrosive chemical environments.

Applications

Chemical and marine engineering Plate heat exchangers Reaction vessels Pharmaceutical Medical and dental applications



