

Titan Grade 2 / 3.7035

Alternative Designations

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Key Features

Excellent strength-to-weight ratio • Good resistance to corrosion • Low thermal expansion

Description

This unalloyed titanium has excellent strength-to-weight ratio with good resistance to corrosion. Due to its low thermal expansion, thermal stresses are low. It is widely used in weight-saving structures and also suitable in the medical sector due to its outstanding biocompatibility. This grade of titanium is often used for structural components such as frames, wings, and fuselage. Other common applications include turbine blades, shafts, and fasteners.

Mechanical Properties

Yield strength	275 – 410 MPa
Tensile strength	345 MPa
Elongation at break	20%
Hardness	150
Module of elasticity	105 GPa

Physical Properties

Density	4.51 g/cm ³
Electrical conductivity	2.08 m/Ω · mm ²
Coefficient of thermal expansion	8.6 K ⁻¹ · 10 ⁻⁶
Thermal conductivity	20 W/m · K
Specific heat capacity	520 J/kg · K

Chemical Composition

Al	-	N	0.03%
Bi	-	Nb	-
C	0.08%	Ni	-
Cd	-	O	0.25%
Co	-	P	-
Cr	-	Pb	-
Cu	-	S	-
Fe	0.3%	Si	-
H	0.015%	Sn	-
Mg	-	Ti	Rest is Ti
Mn	-	V	-
Mo	-	Zn	-

Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit Materialdatacenter.com for further information on this material.