

TA2

Alternative Designations

Standard	EN	ANSI/AA	UNS	JIS
Designation	Titan Grade 2	Ti-Grade 2	R50400	Class 2

Details

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.

Key Features

Excellent strength-to-weight ratio • Good resistance to corrosion

Chemical Composition

Element	Ti	Fe	O	C	N	H
Percentage	≥98.9	0.3	0.25	0.08	0.03	0.015

Mechanical Properties

Property	Yield strength [MPa]	Ultimate tensile strength [MPa]	Elongation [%]	Hardness
Value	275 - 410	344	20	80

Physical Properties

Property	Value
Density [g/cm ³]	4.51
Module of elasticity [GPa]	105
Electrical conductivity [m/Ω · mm ²]	2.08
Coefficient of thermal expansion [K ⁻¹ · 10 ⁻⁶]	8.6
Thermal conductivity [W/m · K]	16.4
Specific heat capacity [J/kg · K]	523