TITANIUM Grade 2 (Commercially Pure)

UNS R50400

Grade 2 Titanium is a commercially pure (CP) grade of titanium and is the most commonly specified grade of CP titanium. It has good ductility and formability with excellent corrosion resistance, especially to seawater.

Dimensional

Thickness	Maximum Width
0.025"- 0.003" (.63508mm)	17.5" (444.5mm) as rolled edge 17.0" (431.8mm) with a slit edge
0.0029" - 0.001" (.0790254mm)	16.5" (419.1mm) as rolled edge 16.0" (406.4mm) with a slit edge
0.0009" - 0.0004" (.02501mm)	15.5" (393.7mm) as rolled edge 15.5" (393.7mm) with a slit edge
0.00039" - 0.00008" (.099002mm)	4.25" (107.95mm) as rolled edge 4.0" (101.6mm) with a slit edge

Typical Mechanical Properties (Annealed)

UTS ksi (MPa)	YS ksi (MPa)	Elongation %
70 (485)	50 (345)	Information only

Chemical Composition (wt %)

Element	Minimum	Maximum	Element	Minimum	Maximum
N	-	.03	0	-	.25
С	-	.08	Residual - each	-	.1
Н	-	.015	Residual - total	-	.4
Fe	-	.30	Titanium	Balance	

Physical Properties

Density*	0.163 lb/in³ (4.48 g/cm³)
Beta Transus	1680°F (915°C)
Melting (liquidus) Point	3034°F (1668°C)
Thermal Conductivity*	12.60 Btu hr ⁻¹ ft ⁻¹ °F ⁻¹ (21.79 W m ⁻¹ K ⁻¹)
Electrical Resistivity*	21 μΩ•in (0.53 μΩ•m)
Magnetic Permeability	Nonmagnetic
Young's Modulus	1.68 x 10 ⁷ lb/in ² (116 GPa)
Shear Modulus	6.38 x 10 ⁶ lb/in ² (44 GPa)
Poisson's Ratio	0.32

^{*} Typical values at room temperature of about 20 to 25°C (68 to 78°F)

TYPICAL APPLICATIONS

- Aerospace structures (skins) & aircraft engine parts
- E-Beam equipment used for food sterilization and vulcanizing rubber
- Reactor vessels
- Speaker domes
- Medical implants and devices

DELIVERY

Availability

Global.

Size

Available in thicknesses and widths per table.

Tempe

Available in the annealed or as rolled condition.

Surface

Clean uniform surface, 1Ra - 16Ra without discoloration or surface defects. Available with a slit edge (typical burr <10% of strip thickness) or with an as-rolled edge.

Packing

Properly packaged to avoid damage in transit. International packaging available upon request.

Conformance

ASTM B265, ASTM F67, AMS4902, DFARS Compliant.

Certifications

IS09001, AS9001, Nadcap.

