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TECHNICAL DATASHEET

[Titanium Grade 1]

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► GENERAL DESCRIPTION

Ti Grade 1 (CP Titanium Grade 1) is a high-purity α -type titanium material with excellent corrosion resistance, outstanding ductility, and good cold workability. Although it has relatively low strength, it offers exceptional formability and weldability, making it suitable for applications that require high corrosion resistance, plasticity, and reliability. It performs particularly well in chemical processing, marine, and medical fields.

► DESIGNATIONS & STANDARDS

DIN	ASTM	UNS	JIS
3.7025	B348 / F67/ISO5832-2	R50250	TP270C (eq.)

► PRODUCT FORMS & APPLICABLE STANDARDS

Product Form	Applicable Standards
Plate / Sheet	ASTM B265 Grade 1; ASTM F67 Grade 1; ISO 5832-2 Grade 1; JIS H4600 Class 1
Bar / Rod	ASTM B348 Grade 1; ASTM F67 Grade 1; ISO 5832-2 Grade 1; JIS H4650 Class 1
Wire	ASTM B863 Grade 1; ASTM F67 Grade 1; ISO 5832-2 Grade 1; JIS H4670 Class 1
Tube / Pipe	ASTM B338 Grade 1; ASTM B861 Grade 1; ASTM B862 Grade 1; JIS H4630 Class 1

► CHEMICAL COMPOSITION (MASS %) *In accordance with: [ISO5832-2]*

Element	N	C	H	Fe	O	Ti
Content (%)	≤0.03	≤0.08	≤0.0125	≤0.20	≤0.18	Balance

► HEAT TREATMENT

Condition	Tensile Strength (MPa)	Yield Strength (MPa)	Elongation (4D)	Reduction of Area (%)	Hardness (HV10)
Annealed	≥240	≥170	≥24	≥30	≥120

► APPLICATIONS

Condition	Dimension
Medical	Cranio-maxillofacial repair plates / Medical mesh / Thin-sheet implants / Dental membrane support components / Medical equipment housings
Aerospace	Lightweight thin sheets / Heat exchanger sheets / Piping / Low-strength corrosion-resistant structural parts
Industrial	Chemical heat exchangers / Anode baskets / Corrosion-resistant liners / Electrolytic equipment parts
Mechanical engineering	Lightweight housings / Corrosion-resistant protective sheets / Thin-walled structural parts / Sensor protective covers

► AVAILABLE FORMS

Available Form	Size Range	Surface Finish	Length (Customizable)	Tolerance (Customizable)	Delivery Condition
Plate	T0.5-T200.0mm	Milled / Bright	L:200/250/300 W:200/300/500/1000	-0.0/+1.0mm	Annealed
Bar	φ1.0-φ200.0mm	Ground / Precision Polished	3M/PCS	h6-h9	Annealed
Wire	φ1.0-φ3.0mm	Ground / Precision Polished	1M/PCS	h6-h9	Annealed
Tube	OD: 1.0-10.0mm ID:0.08mm-2.0mm	Ground / Precision Polished	3M/PCS	h6-h9	Annealed

Materials, specifications or special requirements not shown in the table can all be customized. Please contact our sales team.

► TESTING & CERTIFICATION

TESTING CAPABILITIES	QUALITY & TRACEABILITY
- Chemical: OES · O/N/H analyzer - Mechanical: tensile · Rockwell/Vickers · impact - NDT: ultrasonic testing (UT) - Metallography: optical & electron microscope - Dimensional: straightness / roundness / coaxiality	- ERP full-process traceability · heat-number control - Batch consistency control - Third-party testing: on request, at extra cost - Standards: ASTM · ISO · EN · AMS · DIN - MTC with each shipment

CERTIFICATION: ISO 13485 · ISO 9001

THIRD-PARTY TESTING: SGS



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