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TECHNICAL DATASHEET

[Titanium Grade 3]

Datasheet No. SX-0020 · Version 260723

► GENERAL DESCRIPTION

Ti Grade 3 (CP Titanium Grade 3) is one of the higher-strength grades in the commercially pure titanium series. While maintaining good corrosion resistance, it provides higher mechanical strength compared with lower CP titanium grades. This material is suitable for applications that require greater strength while still demanding excellent corrosion resistance, and it performs particularly well in chemical processing, marine engineering, and high-pressure industrial equipment.

► DESIGNATIONS & STANDARDS

DIN	ASTM	UNS	JIS
3.7055	B348 / F67/ISO5832-2	R50550	TP480C (eq.)

► PRODUCT FORMS & APPLICABLE STANDARDS

Product Form	Applicable Standards
Plate / Sheet	ASTM B265 Grade 3; ASTM F67 Grade 3; ISO 5832-2 Grade 3; JIS H4600 Class 3
Bar / Rod	ASTM B348 Grade 3; ASTM F67 Grade 3; ISO 5832-2 Grade 3; JIS H4650 Class 3
Wire	ASTM B863 Grade 3; ASTM F67 Grade 3; ISO 5832-2 Grade 3; JIS H4670 Class 3
Tube / Pipe	ASTM B338 Grade 3; ASTM B861 Grade 3; ASTM B862 Grade 3

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

Element	N	C	H	Fe	O	Ti
Content (%)	≤0.05	≤0.08	≤0.0125	≤0.30	≤0.35	Balance

► HEAT TREATMENT

Condition	Tensile Strength (MPa)	Yield Strength (MPa)	Elongation (4D)	Reduction of Area (%)	Hardness (HV10)
Annealed	≥450	≥380	≥18	≥30	≥150

► APPLICATIONS

Condition	Dimension
Medical	Higher-strength CP titanium orthopedic parts / Dental parts / Bone plates / Bone screws / Medical device structural parts
Aerospace	Medium-strength brackets / Piping / Fasteners / Hydraulic system parts / Corrosion-resistant structural parts
Industrial	Chemical equipment components / Pressure vessel parts / Heat exchangers / Corrosion-resistant shaft parts
Mechanical engineering	Lightweight load-bearing brackets / Joint connecting plates / Gripper structural parts / Corrosion-resistant mounting bases

► 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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