

Technical datasheet

Titanium Grade 2

Major specifications

ASTM B348	ASTM F67	ASTM B265	ASME SB 265	ISO 5832-2	3.7035	UNS R50400
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Available product forms

Coils and Sheets in ASTM B265 + ASTM F67 + ISO 5832 + ASME SB 265
Plates in ASTM B265 + ASME SB 265
Round bars in ASTM B348 + ASTM F67 + ISO 5832
The current stock range can be found on www.sd-metals.com.
Further dimensions available upon request.
Use our Service Centre to have the available sizes cut to your desired dimensions.

Key features

Commercially pure unalloyed titanium, which offers an excellent balance between strength and ductility. It has good impact strength and is readily weldable. It has good corrosion resistance in highly oxidizing environments, alkaline media, aqueous salt solutions, slightly reducing environments, nitric acid- and wet chlorine gas. It also has excellent resistance to seawater and salt solutions. Titanium's low density, high strength-to-weight ratio and resistance to corrosion make it an ideal material for a wide range of applications. Because it is castable, it is often used for cast valves and fittings.

Applications

- corrosion resistance in chemical and maritime industries
- plate heat exchangers
- reaction vessels
- evaporators
- condensers
- electroplating equipment
- desalinization plants
- seawater heaters
- medical equipment
- structural engineering

Chemical properties

Composition - limits in % (ASTM B265 + ASTM B348)

Fe	O	C	N	H	Ti
max. 0,30	max. 0,25	max. 0,08	max. 0,03	max. 0,015	Rest

Physical and thermal properties

Density	4,51 g/cm ³
Melting temperature	1670°C
Beta transus temperature	920 ± 4°C
Thermal conductivity at 20°C	16 W/ m°C

Typical mechanical properties (room temperature)

	ASTM B265	ASTM B348
Yield strength	min. 275, max. 450 MPa	min. 275 MPa
Tensile strength	min. 345 MPa	min. 345 MPa
Elongation	min. 20%	min. 20%