Datasheets

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Commercially Pure Titanium
Grade 1

Commercially Pure Titanium Grade 1 offers the best ductility and formability among the four CP titanium grades, as well as excellent corrosion resistance in oxidizing or moderately reducing environments, including chlorides. It maintains good toughness even at low temperatures and can be easily welded, machined, and cold/hot formed.

CHEMICAL COMPOSITION

According to ASTM F67

	Fe	O	N	C	H	Co	Others Each	Others Total	Ti
% (max.)	0.20	0.18	0.03	0.08	0.015	0.10	0.10	0.40	Solde

MECHANICAL PROPERTIES

According to ASTM F67

Shapes	Rm Tensile strength min. MPa	Rp 0.2 Yield strength min. MPa	Elongation % min.	Necking % min.
Bars <1935 mm²	240	170	24	30
Sheets/Plates <25 mm	240	170 - 310	24	

PHYSICAL PROPERTIES

Density (g/cm³)	4.51
Hardness (HV)	122
Modulus of elasticity at (GPa)	105
Thermal conductivity at 20°C (W/m °C)	16
Mean coefficient of thermal expansion at 20-200°C (C^{-1})	9.3 x 10^{-6}
Beta transus (°C)	888
Fusion temperature (°C)	1670

The information and technical data contained in this Sheets are for information purposes only.
Only the information written on our material analysis certificates will be official.

APPLICATIONS

Industry
Medical
Aerospace

ADVANTAGES

Corrosion resistance
Formability
Weldability

STANDARDS

ASTM F67
ISO 5832-2
ASTM B348 / ASME SB348
ASTM B265 / ASME SB265

SHAPES

Sheets
Bars
Plates

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