Titan Grade 2

Description - Ti-Grade 2, Unalloyed Titanium - Standard Oxygen

Commercially pure titanium grades feature an excellent strength-to-density ratio and good corrosion resistance. This makes them suitable for the manufacture of components in weight-saving structures with reduced mass forces, and also for components requiring high corrosion resistance. In addition, thermal stresses in titanium structures are lower than in other metallic materials, due to the low thermal expansion of titanium. The materials are also widely used in the medical sector because of their outstanding biocompatibility.

Application - Aerospace industry, Chemical industry, medical engineering

Chemical Composition in %

C	N	Ti	Fe	O	H
≤0.08	≤0.03	Rest	≤0.3	≤0.25	≤0.015

Standards	
Material No.	3.7035
EN Designation	Titan Grade 2
ASTM	Ti-Grade 2
UNS	R50400

Mechanical Properties 20 °C	
Hardness HB 30	≤150
0,2% Yield strength Rp, N/mm²	≥275
Tensile strength Rm, N/mm²	≥345
Elongation A5, %	≥20
Modulus of elasticity, kN/mm2	105

Physical Properties 20 °C	
Density, g/cm3	4.51
Specific heat capacity, J/kg K	520
Thermal conductivity, W/m K	20
Electrical resistivity, Ω mm²/m	0.48