Xometry

Datasheet

TA5

Alternative Designations

Standard	EN	AMST	UNS
Designation	Titan Grade 5	Ti-Grade 5	R56400

Details

This contains 6% Aluminum, 4% vanadium and iron in trace amounts. It has exceptional strength compared to pure titanium but retains the same stiffness and thermal properties. It has easy machinability and weldability. With high strength and corrosion resistance, it can withstand a wide range of adverse environmental factors, including seawater. It is often used in subsea oil and gas structures.

Key Features

Good strength • Easy machinability

Chemical Composition

Element	Ti	Al	V	Fe	O	C	N	H	
Percentage	Balance	5.5 – 6.8	3.5 – 4.5	0.25	0.2	0.08	0.05	0.02	

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Mechanical Properties

Property	Yield strength [MPa]	Ultimate tensile strength [MPa]	Elongation [%]	Hardness
Value	1100	1170	10	379

Physical Properties

Property	Value
Density [g/cm³]	4.43
Module of elasticity [GPa]	114
Electrical conductivity [m/Ω · mm²]	1.01
Coefficient of thermal expansion [K-1 · 10-6]	8.7
Thermal conductivity [W/m · K]	6.7
Specific heat capacity [J/kg · K]	526.3