



Grade	Code	UNS	Titanium
Titanium Grade 2	ASTM Grade 2 (3.7035)	R50400	

Titanium Properties

Grade 2 is the most frequently used unalloyed titanium grade. It provides moderate strength (typical yield strength 352 MPa) combined with good ductility and formability and excellent weldability. Grade 2 titanium has a density of 4.51 g/cc - less than 60% that of steel.

Chemical Composition (Titanium Grade 2)

N %	C %	H %	O %	Fe %	Al %	V %	Ti %	Other Elements %
0,03 max.	1,00 max.	0,015 max.	0,25 max.	0,30 max.	-	-	Balance	-

Mechanical Properties

Product Form	Rp0.2, Mpa	Rm, Mpa	Elongation [%]	Hardness[HRB]
Rod & Bar	≥ 276	≥ 345	≥ 20	160

Suitable For

Grade 2 is primarily use for corrosion resistance and is the most widely used specification in all product forms. Grade 2 titanium proves useful in chemical processes, since it is highly resistant to chemical environments including oxidizing media, alkaline media, organic acids and compounds, aqueous salt solutions and hot gases. Its corrosion resistance holds up in liquid metals, nitric acid, mildly reducing acids and wet chlorine or bromine gas.

Remarks

Titanium Grade 2 is also used to manufacture heat exchangers and cryogenic vessels. In seawater, Grade 2 is fully resistant to corrosion at temperatures up to 300°C.

Specification

Titanium Grade 2, ASTM Grade 2, UNS R50400

Norm

NACE MR0175/ ISO 15156