TECHNICAL DATA
Titanium Grade 2

Titanium grade 2 fasteners are known for being lightweight and providing superior resistance to chlorides and saltwater. In saltwater, Titanium bolts provide excellent resistance even after years of exposure and at high temperatures. Grade 2 titanium is almost inert to most chlorides, chlorines, and wet chlorine gas because its protective passive layer regenerates almost instantly in oxygen or water. Beware, titanium can rapidly ignite in dry chlorine when less than 1% water is present.

Properties

Ultimate Tensile Strength	70 ksi
Yield Strength at 0.2%	50 ksi
Elongation %	28
Usable Temperature Limit	850˚F / 454˚C

Key Benefits

- Ultra-Lightweight
- Excellent resistance to saltwater
- Resists erosion from high velocity seawater
- Almost inert to most chlorides and chlorines, as well as solutions containing chlorites, hypochlorites, chlorates, perchlorates and chlorine dioxide

Chemistry & Specifications

Titanium Grade 2	Ti	Fe	O	C	N	H
Min %	-	-	-	-	-	-
Max %	Bal	0.30	0.25	0.08	0.03	0.015

SPECIFICATIONS: UNS R50400, ASTM B 348, AMS 4921, ASTM F 67, ISO 5832-2, Werkstoff 3.7035

Material Data

TITANIUM GRADE 2 - Tensile Data

Temperature (°F)	Ultimate Tensile (ksi)	Yield Strength at 0.2% Offset (ksi)	Elongation %
Room Temp.	70	50	28
212	56	37	31
392	41	28	37
572	33	18	43
752	27	13	38
842	26	11	34

TITANIUM RESISTANCE TO CHLORINE

GRADE 2

Media	Temperature °F	Corrosion Rate mpy (mm/y)
Wet Chlorine	50-190	Nil - 0.02 (0.001)
Water Saturated, Chlorine Cell Gas	190	0.065 (0.002)
Dry Chlorine	86	Rapid Attack, Ignition