

High temperature strength and corrosion resistance define Inconel 718 fasteners. Twice as strong as sister alloy Inconel 625, Inconel 718 is known for its age-hardened extreme high strength of 185-220ksi tensile strength. Inconel 718 bolts retain their strength even when subjected to pressure and temperatures to 1300°F (700°C). Resistant oxidation and many acids, Inconel 718 fasteners offer the aerospace and oil & gas industries a solution to high temperature corrosion issues.

Properties

Ultimate Tensile Strength	185-220 ksi
Yield Strength at 0.2%	175 ksi
Elongation %	22
Usable Temperature Limit	1300°F / 700°C

Key Benefits

- Excellent creep-rupture strength to 1300°F
- Excellent corrosion and oxidation resistance at high temperatures
- Highly resistant to many acids, sour gas environments, and chloride and sulfide stress corrosion cracking.
- Strength and ductility at cryogenic temperatures

Chemistry & Specifications

Inconel 718	Ni+Co	Fe	Cr	Nb+Ta	Mo	Ti	Co	Al	Mn	Si	Cu	C	P	S	B
Min %	50	-	17.0	4.75	2.80	0.65	-	0.20	-	-	-	-	-	-	-
Max %	55	Bal	21.0	5.50	3.30	1.15	1.0	0.80	0.35	0.35	0.30	0.08	0.015	0.015	0.006

SPECIFICATIONS: AMS 5596, AMS 5662, AMS 5663, AMS 5962, AMS 5832, ASME Case 2222-1, ASME SFA 5.14, ASTM B 637, ASTM B 670, EN 2.4668, GE B50TF14, GE B50TF15, UNS N07718, Werkstoff 2.4668

Material Data

ALLOY 718 - Tensile Data

ANNEALED 1800°F, AGED 1325/1150°F

Temperature (°F)	Ultimate Tensile (ksi)	Yield Strength at 0.2% Offset (ksi)	Elongation %
Room Temp.	210.0	175.0	22.0
400	198.0	163.0	20.0
800	191.0	156.0	19.0
1000	185.0	155.0	18.0
1200	168.0	149.0	19.0
1400	111.0	110.0	27.0

