

INCONEL 718 / UNS N07718 / DIN 2.4668

High Performance Alloy

Alloy 718 Data Sheet

Introduction

Inconel 718 is a Nickel - Chromium - Molybdenum Alloy which resist a wide range of severely corrosive environment, crevice coorsion and pitting. Alloy 718 being precipitation hardenable and having high creep-rupture strength at high temperatures to about 1290°F (700°C). It has higher strenght than Inconel X-750.

Chemical Composition (Typical)

Element	Limits	
	min	max
Cr	17.000	21.000
Cu	0.000	0.300
Mo	2.800	3.300
Nb	4.750	5.500
C	0.000	0.800
Mn	0.000	0.350
P	0.000	0.015
S	0.000	0.015
Si	0.650	0.350
Ti	0.000	0.650
AL	0.200	0.800
Co	0.000	1.000
B	0.000	0.006
Fe	REMAINDER	

Mechanical Properties (Typical)

Parameter	Value
Yield 0.2 % (Mpa/Nmm ²), Min	482
Tensile (Mpa/Nmm ²), Min	930
Elongation (% in 50MM), Min	45
Reduction Area(%), Min	-
Hardness (HRC), Max	24

Physical Properties

Parameter	Value
Density (Kg/m ³)	8190
Elastic Modulus (Gpa)	204.9
*Co-eff of Expansion ($\mu\text{m}/\text{m}/^\circ\text{C}$)	13
*Thermal Condc. (W/m.K)	11.2
Electric Resistivity (n Ω .m) 25°C	1250

*Note : @20°C

Corrosion Data

Corrosion resistance of Inconel 718 is excellent and fatigue resistance in a wide variety of corrosive chemicals including seawater and industrial acids. Inconel 718 is Non-magnetic and spark resistant. It has Resistant to chloride stress corrosion and sulphide stress cracking.

Equivalent Grade Designation

Alloy 718
Inconel 718
UNS N07718
EN DIN 2.4668
AWS 013
W.NR 2.4668

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Available Product Forms

Round, Square, Hexagon ,Flat Bars & Wires
Seamless / Welded Pipes
Seamless / Welded Tubes
Hot & Cold Rolled Plates & Sheets
Forged Bars
Forged Flanges
Butt-Weld Pipe Fittings
Socket-Weld/Forged Pipe Fittings
Machined Components
Ferrule Compression Fittings
Welding Consumables

Common Manufacturing Specifications

ASTM B637, AMS 5662, AMS 5663, AMS 5664, PWA 1009, PWA 1010, GE B50TF15, AMS 5832, ASTM B670, AMS 5596, AMS 5597, PWA 1033, GE B50TF14, ASTM B670, ASTM B637, AMS 5589, AMS 5590, A5.14 ERNiFeCr-2

Alternate to Alloy

Applications & Industries

Oil and Gas Industry
Nuclear Power Plant
Aerospace Industry
Chemical Process Industry
Nuclear Industry

Excellence Inherent

With 3 decade long experience inherited, we aim at providing better solutions for Industrial Piping Sector. Skilled Team, passion drives our *will* to be better with resolute for continous customer & vendor concurrence. We also perceive our duty towards planet for its unconditional support & try to minimise any harm caused due to our activity. For Instance, *We Stay Paperless*

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