Inconel 718 Data Sheet

Introduction

Inconel 718 is a nickel super alloy that frequently used for cryogenic storage tanks, turbines, down hole shafting and well head parts. The high tolerance to extremely high and low temperatures allow Inconel 718 to be welded and annealed into products that will withstand extreme conditions. It also can be used in jet rocket, nuclear fuel, and pump body components.

Equivalent: TAFA 78T, Sulzer, Metco 8718

Chemical & Physical Properties

Mo	Ni	Cr	Fe	Ti	Al	Co	C	Mn	Nb+Ta	Si	P	S	Cu	B
3	50-55	17-21	Bal.	0.65-1.15	0.2-0.8	≤ 1	≤0.08	≤0.35	4.75-5.5	≤0.35	≤0.015	≤0.015	≤0.3	≤0.006

Density	Melting Range
8.2g/cm3	1260°C-1340 °C

Applications

- Coating,Casings
- Instrumentation components
- Nuclear fuel element spacers
- High-strength bolts

Deposit Characteristics

Typical Hardness	HRC 30
Bond Strength	9000 PSI
Deposit Rate	10 lbs /hr/100A
Deposit Efficiency	70%
Machine ability	Good

Standard Dimensions

	Diameter (mm)	Tolerance (mm)
Wire	1.6, 2.0, 3.17	+ 0 / - 0.05

Other sizes (diameter and wire weight) can be manufactured accordingly to the requirements of customers.

Packaging

Spool	15kgs(33 lbs) / spool (D300 spool)
Coil	20 - 400kgs / coil