

Inconel (718) - Specifications

Description

This material has high tensile, fatigue, creep and rupture strength. This material is suitable for high temperature applications and has excellent potential for cryogenic applications.

Mechanical Properties*

	As Built	SR	HIP	SHT	PHT
Tensile strength	127 ksi	133 ksi	185 ksi	119 ksi	198 ksi
0.02 % Yield strength	112 ksi	75 ksi	135 ksi	46 ksi	153 ksi
Modulus	26 msi	28 msi	29 msi	26 msi	28 msi
Elongation	30 %	42 %	24 %	29 %	20 %
Reduction of area	40 %	48 %	49 %	44 %	28 %

* The properties may vary according to application and operation conditions. This information is for reference only. Specifications are subject to change without notice.

Composition*

Element	Typical Values (wt-%)
Ni	50 – 55
Cr	17.0 – 21.0
Nb	≤ 5.5
Mo	≤ 3.3
Ti	≤ 1.15
Al	≤ 0.3
Cu	≤ 0.3
C	≤ 0.08
Si, Mn	each ≤ 0.35
P, S	each ≤ 0.015
Fe	Balance

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