

Inconel 718 is a nickel-based superalloy known for its excellent high-temperature strength, corrosion resistance, and creep resistance. It is widely used in applications that require exceptional performance in extreme environments, such as aerospace, gas turbines, and nuclear reactors.

**Chemical Composition**

Element	Maximum Unless Range is Specified
Silicon	.35
Cobalt	1.00
Carbon	.08
Phosphorus	.015
Sulfur	.015
Manganese	.35
Chromium	17.00-21.00
Niobium	4.75-5.50
Molybdenum	2.80-3.30
Titanium	.65-1.15
Boron	.006
Copper	.30
Aluminum	.20-.80
Nickel	50.00-55.00
Iron	Balance

**Physical Properties**

Property	Maximum Unless Range is Specified
Density,lbs/in <sup>3</sup>	0.296
Specific Heat,BTU/lb-°F	0.104
Melting Point (Deg°F )	2300-2437

**Mechanical Properties**

Property	Maximum Unless Range is Specified
Tensile Strength,ksi	150
Yield Strength,ksi	120-140
Elongation in 2"	20%
Hardness, Rockwell C	30-40

The material properties in this datasheet are provided by one of the manufacturers collaborating with Naxtry. Please note that material properties may slightly vary among different manufacturers. Naxtry can accommodate customer requests for specific materials or brands.