Stainless Steel Inconel 718 Datasheet

Overview

Stainless Steel Inconel 718 is a high-performance alloy known for its exceptional strength, corrosion resistance, and ability to withstand extreme temperatures. Ideal for applications in aerospace, automotive, and industrial sectors, it delivers outstanding durability and reliability in high-stress environments.

As-printed Part's Tolerance: ±300μm or 0.3%

Maximum Printing Size: 420*420*450mm

Properties

Dense Properties	Metric	Method
Density	Coming Soon	Coming Soon
Relative Density	Coming Soon	Coming Soon
Mechanical Properties	**Metric**	**Method**
Tensile Strength	Coming Soon	Coming Soon
Yield Strength	Coming Soon	Coming Soon
Elongation at Break	Coming Soon	Coming Soon
Elastic modulus	Coming Soon	Coming Soon
Hardness	Coming Soon	Coming Soon
Surface Properties	**Metric**	**Method**
Roughness Ra	Coming Soon	Coming Soon
Roughness Rz	Coming Soon	Coming Soon

Pros

Stainless Steel Inconel 718 is a high-performance alloy offering exceptional strength, heat resistance, and corrosion resistance. It excels in extreme environments, with superior fatigue resistance and the ability to withstand high temperatures without compromising integrity.

Cons

Its high cost makes it significantly more expensive than other materials. Additionally, parts printed with Inconel 718 often need extensive post-processing, such as heat treatment and machining, to achieve the desired finish and properties.

Applications

Automotive Parts and Supplies Wrenches and Sockets Pump Shafts

Mixers and Blenders Mechanical Seals Gas Turbines

Jigs and Fixtures Enclosures and Housings Load Cells and Screws