



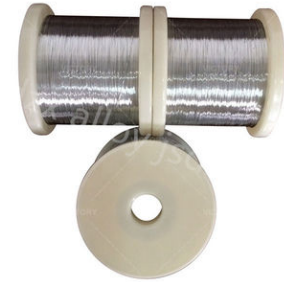
## Aviation Engine Manufacturing Nickel Base Alloy Inconel 718 Wire With High Temperature Resistance

Our Product Introduction

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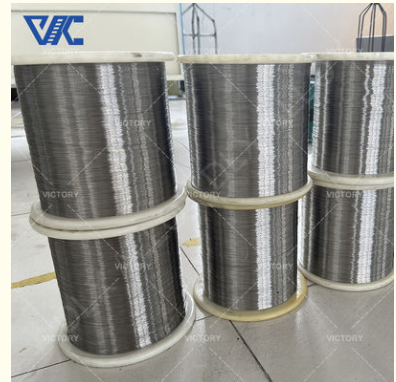
### Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: Inconel 718
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Inconel 718 wire packed in Spool Carton box, Coil package with polybag, then in woodencase
- Delivery Time: 5-21 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month

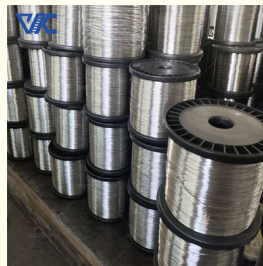


### Product Specification

- Product Name: Inconel 718 Wire
- Material: Ni Cr Fe
- Nickel(Min): 50%
- Application: Aviation Engine Manufacturing
- Density: 8.2 G/cm3
- Melting Point: 1,330°C
- Tensile Strength: 965 MPa
- Yield Strength: 550 MPa
- Thermal Conductivity: 6.4 W/m-K
- Sureface: Bright,Oxided
- Highlight: Aviation Engine Inconel 718 Wire, Inconel 718 Wire, Nickel Base Alloy Inconel 718 Wire



### More Images



### Product Description

## Introduction:

Inconel 718 wire is a high-performance alloy wire used in aerospace engine manufacturing. It is composed of alloy elements such as nickel, chromium, and iron, and has excellent high-temperature strength and corrosion resistance. The material can maintain its mechanical properties and resist thermal creep and deformation in high-temperature, high-pressure working environments. At the same time, it also has excellent corrosion resistance and can resist the erosion of corrosive media such as acids, alkalis, and salts, extending its service life.

In aero-engine manufacturing, Inconel 718 wire has a wide range of applications. It is commonly used in the manufacture of turbine blades and has high-temperature strength and thermal creep resistance. In addition, it is also used to manufacture compressor blades, which can withstand high temperature and high pressure working environments. In engine combustion chambers, it is used to manufacture key components that are resistant to high-temperature airflow and corrosive media. In addition, it is also used to manufacture components such as engine nozzles, which can maintain stability and corrosion resistance in high-temperature and high-pressure injection environments.

## Parameter:

Chemical Composition: Inconel 718 Wire primarily consists of nickel, chromium, iron, and other alloying elements such as cobalt, molybdenum, aluminum, and titanium.

Density: Approximately 8.2 g/cm<sup>3</sup>.

Melting Point: Approximately 1,330°C.

Tensile Strength: It exhibits high tensile strength, enabling it to maintain its mechanical properties at high temperatures.

Coefficient of Thermal Expansion: Approximately  $12.8 \times 10^{-6}$  /°C (within the range of 20-1000°C).

Item	C	Mn	Fe	P	S	Si	Cu	Ni	Co	Al	Ti	Cr	Nb+Ta	Mo	B
Inconel 718	≤0.08	≤0.35	rest	--	≤0.01	≤0.35	≤0.3	50-55	≤1	0.2-0.8	--	17-21	4.75-5.5	2.8-3.3	--

AMS Number	Alloy	Type	UNS	Cross Ref. Spec	Misc./Shape
AMS 5590	Inconel 718	Nickel	N07718	-	Tubing
AMS 5596 Foil	Inconel 718	Nickel	N07718	-	Foil
AMS 5596 Plate	Inconel 718	Nickel	N07718	-	Plate
AMS 5596 Sheet	Inconel 718	Nickel	N07718	-	Sheet
AMS 5596 Strip	Inconel 718	Nickel	N07718	-	Strip
AMS 5597 Plate	Inconel 718	Nickel	N07718	-	Plate
AMS 5597 Sheet	Inconel 718	Nickel	N07718	-	Sheet
AMS 5597 Strip	Inconel 718	Nickel	N07718	-	Strip
AMS 5662 Bar	Inconel 718	Nickel	N07718	-	Bar
AMS 5662 Custom Tube	Inconel 718	Nickel	N07718	-	Custom Tube
AMS 5662 Ring	Inconel 718	Nickel	N07718	-	Ring
AMS 5663 Bar	Inconel 718	Nickel	N07718	-	Bar
AMS 5663 Custom Tube	Inconel 718	Nickel	N07718	-	Custom Tube
AMS 5663 Ring	Inconel 718	Nickel	N07718	-	Ring
AMS 5664 Bar	Inconel 718	Nickel	N07718	-	Bar
AMS 5664 Custom Tube	Inconel 718	Nickel	N07718	-	Custom Tube
AMS 5664 Ring	Inconel 718	Nickel	N07718	-	Ring
AMS 5832	Inconel 718	Nickel	N07718	-	Wire
AMS 5962 Bar	Inconel 718	Nickel	N07718	-	Bar
AMS 5962 Wire	Inconel 718	Nickel	N07718	-	Wire



Size Range (mm)	
Wire	0.5-7.5
Rod/Bar	8.0-200
Strip	(0.50-2.5)*(5-180)
Tube	custom made
Plate	custom made

## contact us

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Oem service:

Welcome customized size

We are experience factory for OEM&ODM service

## Characteristics:

**High-Temperature Strength:** Inconel 718 Wire demonstrates excellent high-temperature strength, allowing it to withstand high-temperature environments while maintaining its mechanical performance and resisting thermal creep and deformation.

**Corrosion Resistance:** It possesses outstanding corrosion resistance, with the ability to withstand corrosion from acids, alkalis, salts, and other corrosive media, thereby extending its service life.

**Oxidation Resistance:** Inconel 718 Wire exhibits good resistance to oxidation and thermal corrosion at high temperatures, maintaining stability.

**Thermal Stability:** It demonstrates good thermal stability, enabling it to maintain structural and performance stability under extreme temperature conditions.

### Advantages:

**High Strength:** Inconel 718 Wire offers exceptional high-temperature strength and mechanical performance, making it suitable for withstanding the high-temperature and high-pressure operating conditions of aerospace engines.

**Corrosion Resistance:** It has excellent resistance to corrosive media such as acids, alkalis, and salts, ensuring stability and extending the service life, even in harsh environments.

**Oxidation Resistance:** Inconel 718 Wire provides excellent resistance to oxidation and thermal corrosion at high temperatures, protecting engine components.

**Processability:** It exhibits good processability, facilitating the manufacturing of complex-shaped engine components.

### Specific Applications:

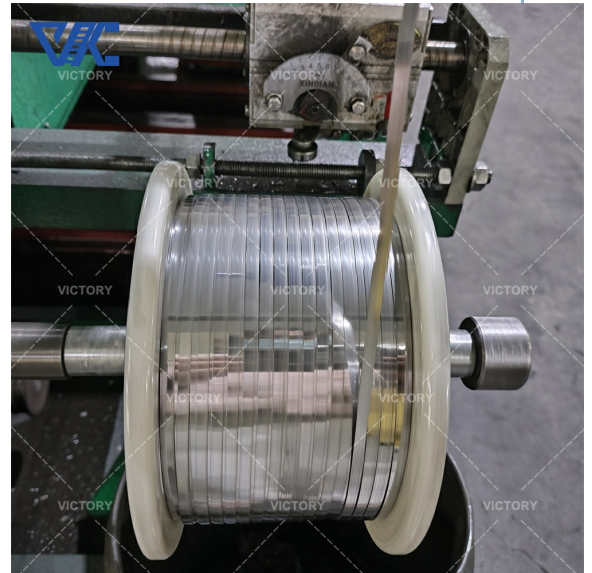
**Turbine Blades:** Inconel 718 Wire is commonly used to manufacture turbine blades in aerospace engines, benefiting from its high-temperature strength and resistance to thermal creep.

**Compressor Blades:** It is widely applied in the manufacturing of compressor blades, capable of withstanding high-temperature and high-pressure working environments.

**Combustion Chambers:** Inconel 718 Wire is utilized for critical components in engine combustion chambers, withstanding high-temperature gas flow and corrosive media.

**Nozzles:** It is also employed in the production of engine nozzles and other components, maintaining stability and corrosion resistance in high-temperature and high-pressure jetting environments.

In summary, Inconel 718 Wire plays a crucial role in aerospace engine manufacturing, owing to its high-temperature strength, corrosion resistance, and thermal stability. Its applications include turbine blades, compressor blades, combustion chambers, and nozzles, among others.



### Q & A:

**Q1:** What are the key characteristics of Inconel 718 wire?

**A1:** Inconel 718 wire is known for its high strength, excellent fatigue resistance, and corrosion resistance, making it suitable for demanding applications in aerospace, automotive, and oil and gas industries.

**Q2:** What are the typical applications of Inconel 718 wire?

**A2:** Inconel 718 wire is commonly used in turbine engine components, aircraft structures, and chemical processing equipment due to its strength, durability, and resistance to corrosion and high temperatures.



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