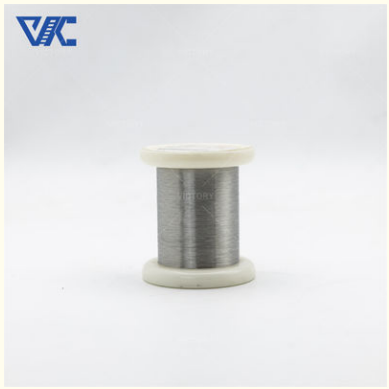
Aerospace Industry Nickel Chromium Alloy Wire Inconel 718 Wire With High Temperature Resistance

Our Product Introduction

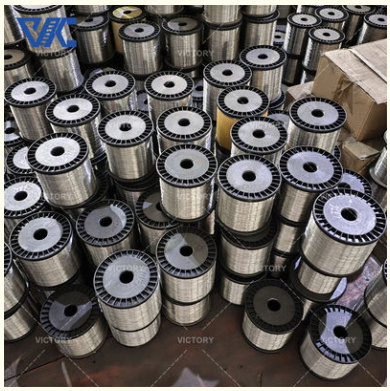
Basic Information

- 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

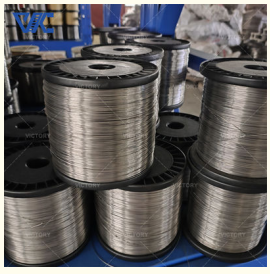


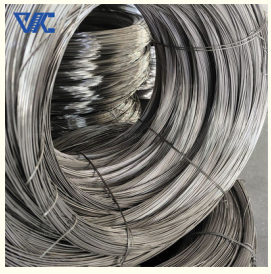
Product Specification

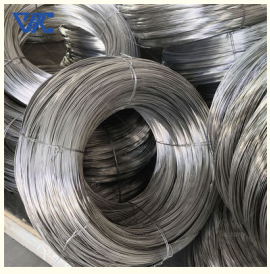
- Product Name: Inconel 718 Wire
- Material: Ni Cr Fe
- Nickel(Min): 50%
- Application: Aerospace Industry
- Density: 8.2 G/cm3
- Melting Point: 1,330°C
- Tensile Strength: 965 MPa
- Yield Strength: 550 MPa
- Thermal Conductivity: 6.4 W/m·K
- Sureface: Bright,Oxided
- Highlight: **corrosion resistant inconel alloy**, **high temperature resistant inconel alloy**



More Images







Product Description

Our Product Introduction

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Introduction:

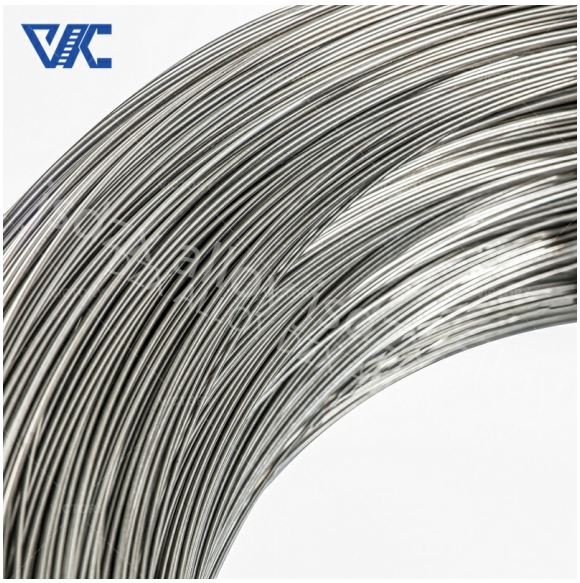
Inconel 718 wire is a high-performance alloy wire widely used in the aerospace industry. It is composed of alloy elements such as nickel, chromium, and iron, and has excellent high-temperature strength, corrosion resistance, and oxidation resistance. Inconel 718 wire is widely used in the aerospace industry to manufacture key components and structures under various high temperatures, high pressures and corrosive environments, such as turbine blades, engine parts, combustion chambers, nozzles, etc. Its excellent thermal stability and mechanical properties enable it to withstand extreme working conditions and harsh environments, ensuring the safety and reliability of aerospace equipment. Inconel 718 wire is widely recognized and adopted in the aerospace industry and has made important contributions to the development of the industry.

Parameter:

Chemical composition: Contains about 50% nickel, about 19% chromium, about 18.5% iron, and other alloying elements such as cobalt, molybdenum, aluminum, titanium, etc.
Density: approximately 8.2 g/cm³.
Melting point: approximately 1,330°C.
Tensile strength: can reach about 1200 MPa under high temperature conditions.
Thermal expansion coefficient: approximately 12.8 × 10^(-6)/°C (in 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

Characteristic:

High Temperature Strength: Inconel 718 wire has excellent high temperature strength and is able to maintain its mechanical properties in high temperature environments.
Corrosion resistance: It has excellent corrosion resistance and can resist the erosion of acid, alkali, salt and other corrosive media.
Oxidation resistance: Inconel 718 wire exhibits good oxidation resistance in high temperature environments and can resist oxidation and thermal corrosion.
Thermal stability: It has good thermal stability and can maintain the stability of its structure and performance under extreme temperature conditions.

Advantage:

High Strength: Inconel 718 wire has excellent high temperature strength and mechanical properties to withstand extreme working conditions.
Corrosion resistance: It has good resistance to corrosive media such as acids, alkalis, and salts, and can maintain stability in harsh environments.
Oxidation resistance: Inconel 718 wire exhibits excellent antioxidant properties in high temperature environments, extending the service life of the material.
Processability: It has good processability and can be used for heat treatment, welding, forming and other processes.

Specific applications:

Engine parts: Inconel 718 wire is often used to manufacture key components such as turbine blades, compressor blades, combustion chambers and nozzles in aerospace engines.
Aerospace Structures: It is widely used in aerospace structures such as turbine disks, connectors, support structures, etc. to provide high strength and corrosion resistance.
Aerospace equipment: Inconel 718 wire plays an important role in the manufacture of spacecraft, missiles, rockets and other aerospace equipment, ensuring their reliability and performance in extreme environments.
All in all, Inconel 718 wire has broad application prospects in the aerospace industry due to its high-temperature strength, corrosion resistance and thermal stability, and has made important contributions to the development of the aerospace field.

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Q & A:

Q: What are the key advantages of Inconel 718 wire in terms of strength and toughness?
A: Inconel 718 wire offers exceptional high strength and toughness, making it suitable for applications that require reliable performance under extreme conditions, such as aerospace components and high-stress environments.

Q: How does Inconel 718 wire maintain its mechanical properties in demanding environments?
A: Inconel 718 wire retains its strength and toughness even at elevated temperatures, exhibiting excellent resistance to fatigue, creep, and stress-corrosion cracking, which contributes to its widespread use in critical applications that require durability and reliability.

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