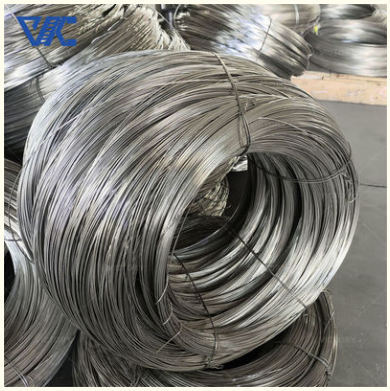
Nuclear Industry Nickel Alloy Inconel 600 Wire With Preservative

Our Product Introduction

Basic Information

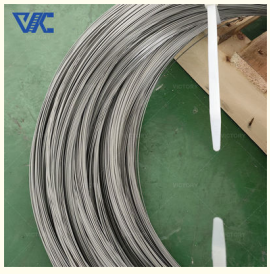
- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: Inconel 600 wire
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Inconel 600 wire packed in Spool Carton box, Coil package with polybag,then in woodencase
- Delivery Time: 5-21 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month

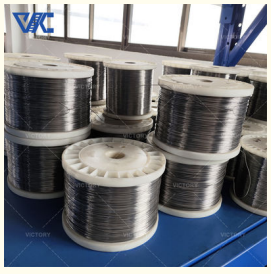


Product Specification

- Product Name: Inconel 600 Wire
- Material: Ni Cr Fe
- Nickel(Min): 72%
- Density: 8.47 G/cm3
- Melting Point: 1,370-1,415°C
- Tensile Strength: 550 MPa
- Yield Strength: 240 MPa
- Elongation (≥ %): 30%
- Application: Nuclear Industry
- Sureface: Bright,Oxided
- Highlight: **corrosion resistant inconel alloy**, **high temperature resistant inconel alloy**

More Images





Product Description

Our Product Introduction

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Product Description:

Inconel 600 alloy wire has a wide range of applications in the nuclear industry. Inconel 600 alloy is a nickel-based alloy composed of high-purity nickel and chromium, and also contains elements such as iron, copper, and titanium. The alloy is known for its excellent corrosion resistance, high temperature strength and oxidation resistance.
In the nuclear industry, Inconel 600 alloy wire is often used to manufacture components and equipment for nuclear reactors. It has excellent corrosion resistance against corrosive media commonly found in the nuclear industry, such as acidic and alkaline solutions. This makes it one of the structural materials in nuclear reactors, including fuel element supports, control components and core structural materials.

Characteristic:

Corrosion Resistance: One of the characteristics of Inconel 600 alloy wire in the nuclear industry is its excellent corrosion resistance. It is resistant to corrosive media commonly found in nuclear industry environments, including acidic and alkaline solutions. This makes it ideal for applications in the nuclear industry where corrosion resistance is required.
High temperature strength: Inconel 600 alloy wire has good mechanical properties and high temperature strength under high temperature conditions. It can maintain high strength and rigidity and is not prone to deformation or failure. This makes it suitable for applications in the nuclear industry that need to withstand high temperature environments and high stresses.
Oxidation resistance: In high-temperature oxidation environments, Inconel 600 alloy wire can form a dense oxide film to provide effective anti-oxidation protection. This helps protect the material from oxidation and corrosion at high temperatures, maintaining its performance and reliability.
Chemical stability: Inconel 600 alloy wire has good chemical stability and can operate stably for a long time in various nuclear industry environments. It resists chemical attack and corrosion, ensuring the reliability and durability of equipment and components.
Processability: Inconel 600 alloy wire has good processability and can be used for cold and hot processing, such as drawing, forging and welding. This makes it flexible and moldable when manufacturing and processing nuclear industry equipment and components.

Advantage:

Excellent corrosion resistance: Inconel 600 alloy wire has excellent corrosion resistance in high temperatures and corrosive environments. It is resistant to corrosion by various chemicals, including acids, alkalis, salts and oxidants. This corrosion resistance makes it ideal for use in a variety of corrosive media in the nuclear industry.
High Temperature Performance: Inconel 600 alloy wire has excellent high temperature stability. It can operate at high temperatures for extended periods of time without creep, softening or failure. This makes it ideal for high-temperature applications in the nuclear industry, such as fuel elements in nuclear reactors.
Mechanical strength: Inconel 600 alloy wire has good mechanical strength and toughness. This allows it to withstand high stress environments and have high tensile strength and fracture resistance. This mechanical strength is crucial for components in the nuclear industry that are required to withstand high loads and vibrations.
Coefficient of Thermal Expansion and Material Similarity: The thermal expansion coefficient of Inconel 600 alloy wire is similar to many materials commonly used in the nuclear industry, such as steel and iron. This allows it to achieve a good thermal expansion match with other materials in structural applications in nuclear reactors, thereby reducing the risk of thermal stress and thermal cracking.
Radiation resistance: Inconel 600 alloy wire has certain resistance to radiation. In the nuclear industry, radiation is an important consideration because materials can change in an irradiated environment. The radiation resistance of Inconel 600 alloy wire makes its application in nuclear reactors more reliable.

Specific applications:

Nuclear reactor components: Inconel 600 alloy wire can be used to manufacture structural components in nuclear reactors, such as fuel element brackets, control components and core structural materials.
Nuclear fuel processing: Inconel 600 alloy wire can be used to manufacture corrosion-resistant vessels, pipes and equipment during nuclear fuel processing.
Nuclear waste treatment: Inconel 600 alloy wire can be used in equipment in the nuclear waste treatment process, such as nuclear waste containers, treatment tanks and pipelines.
Overall, Inconel 600 alloy wire has excellent corrosion resistance, high temperature strength and oxidation resistance in the nuclear industry. It has a wide range of applications in nuclear reactor components, nuclear fuel processing, nuclear waste processing, etc., and can meet the strict requirements for material stability, corrosion resistance and high temperature performance in the nuclear industry.

Parameter:

Chemical composition:
Nickel (Ni): about 72%
Chromium (Cr): 14-17%
Iron (Fe): 6-10%
Copper (Cu): small amount
Titanium (Ti): small amount
Other elements: small amounts

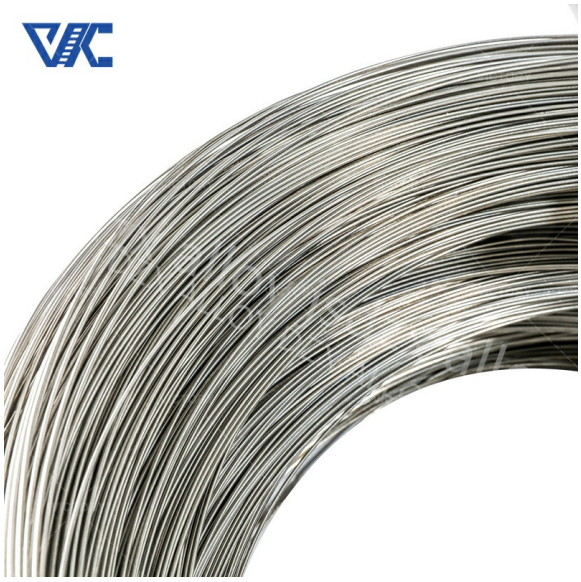
Physical properties:
Density: about 8.47 g/cm³
Melting point: approximately 1,370-1,415°C

Mechanical behavior:
Tensile strength: about 550 MPa
Yield strength: about 240 MPa
Elongation: about 30%

Item	C	Mn	Fe	P	S	Si	Cu	Ni	Co	Al	Ti	Cr	Nb+Ta	Mo	B
Inconel 600	≤0.15	≤1	6-10	≤0.015	≤0.015	≤0.5	≤0.5	≥72	--	--	--	14-17	--	--	--

Element	Percent
Nickel (plus Cobalt) (Min)	72
Chromium	14-17
Iron	6-10
Carbon (Max)	.15
Manganese (Max)	1

Sulfur (Max)	.015
Silicon (Max)	.5
Copper (Max)	.5



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

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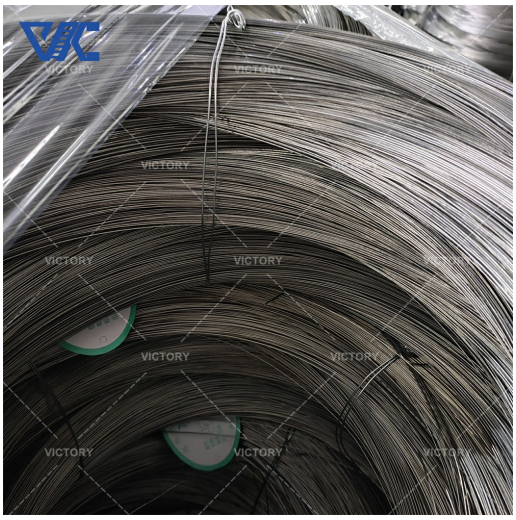
email:victory@dlx-alloy.com
Oem service:
Welcome customized size
We are experience factory for OEM&ODM service



Q&A:

Q: What are the typical applications of Inconel 600 wire?
A: Inconel 600 wire is commonly used in industries such as aerospace, chemical processing, and power generation for applications including furnace components, heat treatment equipment, and chemical processing vessels, where its high-temperature oxidation resistance and corrosion resistance are crucial.

Q: Why is Inconel 600 wire preferred in high-temperature applications?
A: Inconel 600 wire is preferred for high-temperature applications due to its ability to maintain strength, resist oxidation, and provide excellent thermal stability, making it suitable for use in environments with elevated temperatures and corrosive conditions.

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