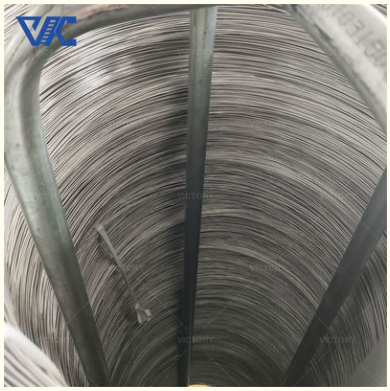
Nuclear Industry Nickel Chromium Alloy Wire Inconel 690 Wire With Preservative

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: Inconel 690
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Inconel 690 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 690 Wire
- Material: Ni Cr Fe
- Nickel(Min): 58-63%
- Density: 8.19 G/cm3
- Melting Point: 1340-1380°C
- Thermal Conductivity: 11.2-12.6 W/(m·K)
- Tensile Strength: 690 MPa
- Elongation (≥ %): 40%
- Yield Strengt: 310 MPa
- Application: Nuclear Industry
- Sureface: Bright,Oxided
- Highlight: **Nickel Base Inconel Alloy Wire**, **Anti Corrosion Inconel Alloy Wire**

More Images

Product Description

Our Product Introduction

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Introduction:

Inconel 690 alloy wire is widely used in the nuclear industry. Inconel 690 alloy wire is a high-strength, corrosion-resistant alloy wire with excellent performance and reliability. It is widely used in nuclear fuel elements, nuclear reactor structural materials and auxiliary systems in nuclear power plants. In the high temperature, high pressure and strong radiation environment in the nuclear energy field, Inconel 690 alloy wire can withstand extreme working conditions and maintain stable performance.
Inconel 690 alloy wire has excellent corrosion resistance and can effectively resist the erosion of corrosive media such as sulfuric acid, hydrochloric acid, and chloride. It also shows good antioxidant properties and can be used stably for a long time in high-temperature oxidizing environments. These properties make Inconel 690 alloy wire a critical material choice in the nuclear industry, ensuring the safe operation and long-term reliability of nuclear facilities.

Parameter:

Chemical composition:
Inconel 690 Wire is mainly composed of nickel (Ni) and chromium (Cr). The nickel content is about 58-63% and the chromium content is about 27-31%. In addition, it also contains some other elements, such as iron (Fe), molybdenum (Mo), copper (Cu), manganese (Mn), etc.

Physical properties:
Density: 8.19 g/cm³
Melting point: 1338-1381°C
Modulus of elasticity: 214 GPa
Thermal conductivity: 10.1 W/(m·K) (room temperature)
Linear expansion coefficient: 13.1 μm/m·K (room temperature)

Item	C	Mn	Fe	P	S	Si	Cu	Ni	Co	Al	Ti	Cr	Nb+Ta	Mo	B
Inconel 690	≤0.05	≤0.5	7-11	--	≤0.015	≤0.5	≤0.5	≥58	--	--	--	27-31	--	--	--

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 Performance: Inconel 690 Wire has excellent high temperature stability and creep resistance, maintaining its strength and structural stability in extreme high temperature environments.
Corrosion resistance: Inconel 690 Wire has excellent corrosion resistance and can resist corrosion in acidic, alkaline and oxidizing environments, including sulfuric acid, hydrochloric acid, alkali, etc.
Antioxidation: Inconel 690 Wire can resist oxidative damage in high-temperature oxidizing environments and has good antioxidant properties.

Advantage:

High temperature stability: Inconel 690 Wire maintains its strength, creep resistance and structural stability in high temperature environments, making it suitable for high temperature applications in the nuclear industry.
Corrosion resistance: Inconel 690 Wire has excellent corrosion resistance and can resist the erosion of acidic, alkaline and oxidizing media, and is suitable for corrosive environments in the nuclear industry.
Oxidation resistance: Inconel 690 Wire can resist oxidative damage in high-temperature oxidizing environments, extending the service life of the material.

Specific applications:

Nuclear Reactor: Inconel 690 Wire is widely used in fuel elements, fuel cladding, fuel tanks and other components of nuclear reactors and can withstand extreme conditions such as high temperature, radiation and corrosion.
Nuclear fuel processing: Inconel 690 Wire is used in equipment and pipelines in nuclear fuel processing to resist corrosion from high-temperature acidic solutions.
Nuclear waste treatment: Inconel 690 Wire is used in treatment equipment and reactors during nuclear waste treatment and can withstand the erosion of high temperatures, corrosive solutions and radioactive materials.
In summary, Inconel 690 Wire is widely used in the nuclear industry due to its high temperature stability, corrosion resistance and oxidation resistance. It is used in nuclear reactors, nuclear fuel processing and nuclear waste disposal, ensuring the safety and reliability of nuclear industry equipment. sex.

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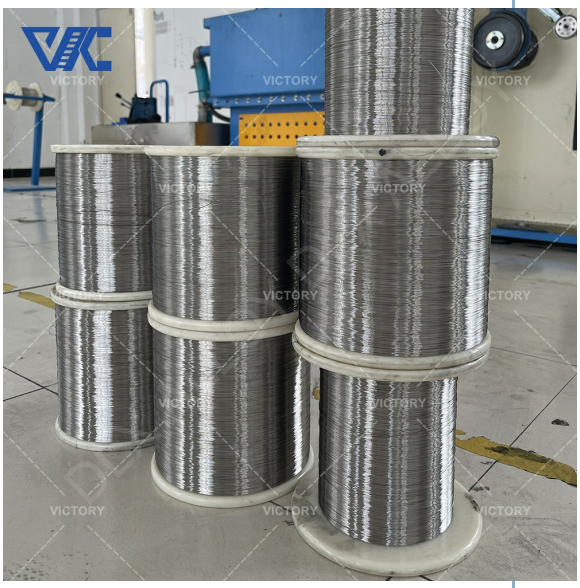

Q & A:

Q1: What are the main advantages of Inconel 690 wire?
A1: Inconel 690 wire offers excellent corrosion resistance in highly aggressive environments, making it well-suited for applications in chemical processing, nuclear power, and pollution control industries.

Q2: What is the typical temperature range at which Inconel 690 wire can perform effectively?
A2: Inconel 690 wire can maintain its corrosion resistance and mechanical properties at elevated temperatures up to approximately 1000°C (1830°F), making it suitable for high-temperature applications.

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