

Radiation Resistance Nichrome Alloy Strip Inconel 690 Strip For Nuclear Energy Industry

Basic Information

 Place of Origin: 	China
Brand Name:	Victory
Certification:	CE,ROHS,ISO 9001
Model Number:	Inconel 690
Minimum Order Quantity:	1 Kg
Price:	Negotiable
 Packaging Details: 	Packed as coil. Special packaging requirements can also be accommodated. OEM is also acceptabl
 Delivery Time: 	7 to 20 Days
• Payment Terms:	L/C, D/A, D/P, T/T, Western Union, MoneyGram
Supply Ability	100 Ten (Ten e new Mentle



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Product Specification

- Product Name:
- Material:
- Ni (Min):
- Density (g/m3):
- Melting Point:
- Thermal Conductivity:
- Tensile Strength:
- Yield Strengt:
- Application:
- Elongation (≥ %):
- Highlight:
- Ni Cr Fe 58-63% 8.19 G/cm3 1340-1380°C 11.2-12.6 W/(m·K) 690 MPa 310 MPa

Inconel 690 Strip

- Nuclear Reactor Components, Nuclear Fuel Processing Equipment
- ≥%): 40%
 - Inconel 690 Strip, Customized Nichrome Alloy Strip, Customized Inconel Alloy 690 Strip



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Introduction:

Inconel 690 strip is a high-temperature alloy strip commonly used in the nuclear energy industry. It is composed of nickel, chromium, iron and other alloying elements and has excellent corrosion resistance and high temperature stability.

The chemical composition of Inconel 690 tape includes nickel (58-63%), chromium (27-31%), iron (7-11%), molybdenum (0.5% max), manganese (0.5% max), titanium (0.5% max)) and copper (max. 0.5%). The tape has a density of 8.19 g/cm³ and a thermal expansion coefficient of 13.3 μ m/m·°C (20-1000°C). The minimum tensile strength can reach 690 MPa, and the minimum yield strength can reach 310 MPa.

In the nuclear energy industry, Inconel 690 tape is widely used in key components in nuclear reactors and equipment in hightemperature environments. It is able to withstand extreme high temperatures and corrosive environments while maintaining excellent corrosion resistance and high temperature stability. Inconel 690 tape also has excellent oxidation resistance and mechanical strength, and can meet the operating conditions and stress requirements of nuclear reactors.

Inconel 690 tape is used in a wide range of applications in the nuclear energy industry, including fuel elements, fuel jackets, reactor pressure vessels and other critical components. With its excellent corrosion resistance, high temperature stability and excellent mechanical properties, Inconel 690 belt provides reliable material solutions for the nuclear energy industry, ensuring the safe operation and long-term stability of nuclear energy equipment.

Product Features:

Corrosion resistance: Inconel 690 belt has excellent corrosion resistance and can resist corrosive media in the nuclear energy industry, including acid, alkali and high temperature corrosion.

Radiation resistance: The tape exhibits excellent radiation resistance and is able to maintain stable performance in the radiation environment of the nuclear energy industry.

High Temperature Strength: Inconel 690 tape has good strength and toughness at high temperatures and is able to withstand the high temperature and high pressure environments found in the nuclear energy industry.

Advantage:

Corrosion resistance: Inconel 690 belt has excellent corrosion resistance in the nuclear energy industry. It can resist the erosion of equipment by corrosive media and extend the service life of equipment.

Radiation resistance: This strip shows excellent radiation resistance and can maintain stable performance in the nuclear energy industry and reduce the impact of radiation on equipment.

High temperature strength: Inconel 690 tape has good high temperature strength and toughness, is suitable for high temperature and high pressure conditions in the nuclear energy industry, and can withstand stress and load.

Specific applications:

Nuclear reactor components: Inconel 690 tape can be used in key components such as pipes, vessels and heat exchangers in nuclear reactors to withstand high temperatures, high pressures and corrosive media.

Nuclear fuel processing device: Suitable for pipelines and equipment in nuclear fuel processing devices, such as nuclear fuel soaking pools, solvent extraction towers, etc., to ensure long-term operation and reliability of the equipment.

Nuclear waste treatment facilities: Inconel 690 tape can also be used on components such as pipes and vessels in nuclear waste treatment facilities to meet requirements for corrosion resistance, high temperature strength and radiation stability.

Other relevant knowledge:

Composition of Inconel 690 alloy: Inconel 690 alloy is mainly composed of alloying elements such as nickel, chromium and iron. The reasonable ratio of these elements gives the alloy excellent corrosion resistance, high temperature strength and radiation stability.

Heat Treatment and Processing: Inconel 690 tape typically requires heat treatment to improve its mechanical properties and corrosion resistance. In addition, the alloy can be formed and processed through processes such as cold working and welding to meet the needs of the nuclear energy industry. Safety and environmental protection: The use of Inconel 690 belts can improve the safety and reliability of nuclear energy

Safety and environmental protection: The use of Inconel 690 belts can improve the safety and reliability of nuclear energy industry equipment, reduce problems such as corrosion, radiation and leakage, and ensure the safe operation of the nuclear energy industry.

Parameter:

Diameter range: from 0.03 mm to 12 mm

Standard specifications: ASTM B166, AMS 5599, AMS 5666

Typical chemical composition: nickel (58-63%), chromium (27-31%), iron (7-11%), molybdenum (0.5-1.0%), zirconium (0.02-0.12%), etc.

Typical mechanical properties: tensile strength 690 MPa (minimum), yield strength 310 MPa (minimum), elongation at break 40% (minimum)

Item	С	Mn	Fe	Р	S	Si	Cu	Ni	Co	Al	Ti	Cr	Nb+Ta	Мо	В
Inconel 690	≤0.05	≤0.5	7-11		≤0.015	≤0.5	≤0.5	≥58				27-31			

contact us email:victory@dlx-alloy.com

Oem service:

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Size Range				
Wire	0.05-8.0mm			
Rod/Bar	8.0-200mm			
Strip	(0.05-0.5)*(5-200)mm			
Plate	custom made			
Tube	custom made			





Q&A:

What are the main applications of Inconel 690 belts in the nuclear energy industry? In the nuclear energy industry, Inconel 690 tape is mainly used in the manufacture of nuclear reactor components, including key components such as pipes, vessels and heat exchangers. It can also be used in piping and equipment in nuclear fuel processing units and nuclear waste disposal facilities.

What are the main advantages of Inconel 690 straps?

Inconel 690 belts have excellent corrosion resistance in the nuclear energy industry and can resist the erosion of corrosive media and extend the service life of equipment. It also exhibits excellent radiation resistance and is able to maintain stable performance in the radiation environment of the nuclear energy industry. Additionally, it has high-temperature strength and toughness, allowing it to withstand high-temperature and high-pressure conditions.

What are the ingredients of Inconel 690 tape?

Inconel 690 tape is mainly composed of alloying elements such as nickel, chromium and iron. The reasonable ratio of these elements gives the alloy excellent corrosion resistance, high temperature strength and radiation stability.

