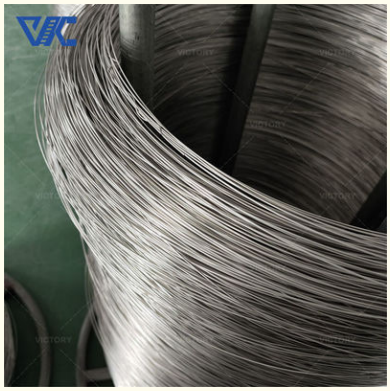
Electric Heating Element Cr10Ni90 Nichrome Alloy Wire NiCr Wire With High Resistivity

Our Product Introduction

Basic Information

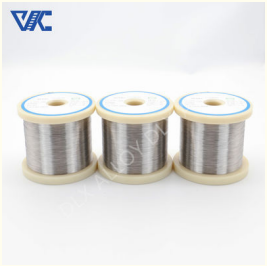
- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: Cr10Ni90
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Spool package with Carton box, Coil package with polybag for Resistance wire
- Delivery Time: 7 to 20 Days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month



Product Specification

- Product Name: Nichrome Alloy Wire
- Material: Nickel, Chromium
- Nickel(Min): 89%
- Tensile Strength: 637MPA
- Magnetic Permeability: 0.78+/-0.05
- Elongtation: ≥20%
- Condition: Hard / Soft
- Sureface: Bright, Oxided, Acide
- Application: Electric Heaters And Heating Elements, Heating Tubes And Electric Furnaces, Heat Exchangers, Etc
- Highlight: **High Resistivity Nichrome Alloy Wire**, **Cr10Ni90 Nichrome Alloy Wire**, **Electric Heating Element Nichrome Alloy Wire**

More Images



Product Description

Our Product Introduction

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Product Description:

Cr10Ni90 Nichrome alloy wire is a high-performance material composed of nickel and chromium, with a minimum nickel content of 89%. Its tensile strength reaches 637MPA, magnetic permeability stabilizes at 0.78+/-0.05, and elongation exceeds 20%. It can be used in hard or soft states and provides bright, oxidized, or acidic surface treatment options. Widely used in fields such as electric heaters, heating tubes, electric furnaces, and heat exchangers, providing reliable support for various heating systems.
Cr10Ni90 nickel chromium alloy wire is renowned for its stable resistance characteristics, excellent mechanical properties, and diverse surface treatment options. Its high strength and high elongation make it suitable for heating needs in various high-pressure environments. Whether used as heating elements for electric heaters, heating tubes, electric furnaces, or as materials for heat exchangers, they can provide reliable support for heating systems in different industries and meet diverse industrial needs.

Size dimension range:

Wire: 0.01-10mm
Ribbons: 0.05*0.2-2.0*6.0mm
Strip: 0.05*5.0-5.0*250mm
NiCr series: Cr10Ni90,Cr20Ni80, Cr30Ni70, Cr15Ni60, Cr20Ni35, Cr20Ni30

Technical Parameters:

Performance material		Cr10Ni90
Composición	**Ni**	90
	Cr	10
	Fe	
Temperatura máxima°C		1300
Punto de fusion °C		1400
Densidad g/cm3		8.7
Resistividad μΩ·m,20°C		0.76±0.05
Alargamiento a la ruptura		≥20
Calor especifico J/g.°C		
Conductividad térmica KJ/m.h°C		
Coeficiente de expansión de líneas a×10-6/(20 1000°C)		
Estructura micrográfica		
Propiedades magnéticas		

Form	**Specification**	
Wire	Diameter=0.025mm~8mm	
Flat wire	Width=0.40~6.0mm	Thick=0.03~0.50mm
Strip	width=8~250mm	Thick=0.05~3.0mm
Bar	Diameter=8~100mm	Long=50~1000

Cr10Ni90 characteristics:

High resistivity: Cr10Ni90 alloy wire has high resistivity, which can ensure stable heating performance of the electric heating element during operation.
Corrosion resistance: Excellent corrosion resistance enables it to maintain a long service life even in harsh environments.
High temperature stability: able to maintain structural stability even at high temperatures, suitable for long-term high-temperature working situations.
Good processability: Easy to process into various shapes to meet the design requirements of different electric heating components.
Non magnetic: It does not produce magnetic field interference during use and is suitable as an electric heating element for precision electronic equipment.

Application:

NiCr alloy wire is widely used in various electric heating equipment, including heaters, electric furnaces, heating tubes, etc., due to its high electrical resistivity and excellent oxidation resistance. The following are the specific applications of Cr10Ni90

alloy wire in the field of electric heating elements:
Electric heaters and heating elements: Cr10Ni90 alloy wires are made into fine wires and wound into coils for manufacturing electric heaters and heating elements. When energized, alloy wires generate heat for heating air, liquids, or solids, commonly found in household appliances such as water heaters, dryers, and heating elements in industrial equipment.
Heating tubes and electric furnaces: Heating tubes and electric furnace components made of Cr10Ni90 alloy wire can be used in industrial heating and drying equipment. It can work at high temperatures and maintain stable heating for a long time, so it is widely used in many industrial applications.
Heat exchangers and heaters: Cr10Ni90 alloy wire can also be used to manufacture heat exchangers and heaters for heating liquid or gas fluids. Its high electrical resistivity and corrosion resistance make it suitable for various industrial and commercial applications.
Laboratory equipment and heat treatment equipment: Due to the high temperature resistance of Cr10Ni90 alloy wire, it is also widely used in laboratory equipment and heat treatment equipment, such as high-temperature furnaces, ovens, etc.
Overall, Cr10Ni90 alloy wire has a wide range of applications in the field of electric heating components, and its excellent electrical and high-temperature resistance make it an important component of many electric heating equipment.

Shipping:

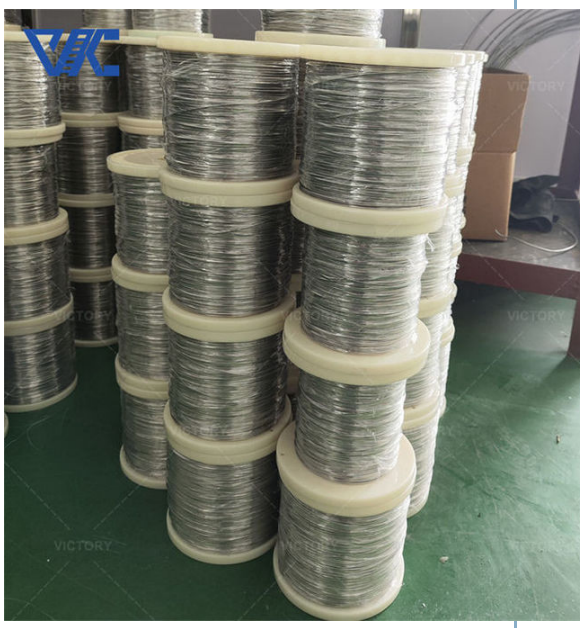
The shipping method for NiCr Alloy depends on the customer's requirements.
Two options are mentioned: airmail and sea freight.
Airmail is a faster but relatively more expensive shipping option, suitable for customers who require quick delivery.
Sea freight is a cost-effective shipping option that is commonly used for transporting bulk quantities of goods over longer distances.

FAQ :

Q1: What are the advantages of Cr10Ni90 nickel chromium alloy wire compared to other materials in the manufacturing of electric heating components?
A1: Cr10Ni90 alloy wire has higher electrical resistivity and better corrosion resistance compared to other materials, which enables it to provide more stable and long-lasting thermal energy output in electric heating elements, while also reducing maintenance costs and replacement frequency.

Q2: What is the high-temperature stability of Cr10Ni90 alloy wire and how high can it withstand?
A2: Cr10Ni90 alloy wire has excellent high-temperature stability, which can work at temperatures above 1000 °C without losing stability, making it an ideal choice for manufacturing high-temperature electric heating elements.

Q3: What factors need to be considered when choosing Cr10Ni90 nickel chromium alloy wire as an electric heating element?
A3: When selecting Cr10Ni90 alloy wire, it is necessary to consider its electrical resistivity, corrosion resistance, high temperature resistance, and processability. In addition, factors such as the specific application environment, required power, size requirements, and safety standards of the electric heating element should also be considered to ensure that the selected alloy wire can meet all technical requirements and performance standards.



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