637MPA Antioxidant Cr10Ni90 Nickel Chromium Flat Wire In Resistance Heating Elements

Our Product Introduction

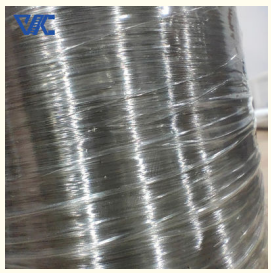
Basic Information

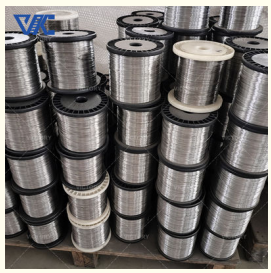
- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: Cr10Ni90
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Spool package with Carton box, Coil package with polybag for Resistance wire
- Delivery Time: 7 to 20 Days
- Payment Terms: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

Product Specification

- Product Name: Nichrome Alloy Flat 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 Heater, Industrial Heat Treatment Equipment, Laboratory Heating Device
- Highlight: **637MPA Nickel Chromium Flat Wire**, **Cr10Ni90 Nickel Chromium Flat Wire**, **Antioxidant Nickel Chromium Flat Wire**

More Images





Product Description

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Product Description:

Cr10Ni90 nnichrome flat wire is a selected electric heating alloy material that provides excellent high temperature and corrosion resistance with at least 89% nickel content. This high-performance flat wire has a high tensile strength of 637MPA and an elongation of at least 20%, ensuring its structural integrity and reliability in various application scenarios. Its magnetic permeability is 0.78+/-0.05, ensuring stability in electromagnetic environments. Cr10Ni90 nicr alloy flat wire provides two processing states, hard and soft, as well as various surface treatment methods such as brightness, oxidation, and acid washing, to meet the needs of different customers.
Widely used in electric heaters, industrial heat treatment equipment, and laboratory heating devices, etc, Cr10Ni90 nickel chromium flat wire has become a key component for improving heating efficiency and ensuring process stability due to its uniform heat distribution, fast heating response, and long-lasting durability. Whether it is in the delicate heating elements of household appliances or in the heat treatment process that requires extremely high temperature control in industrial production, Cr10Ni90 nickel chromium flat wire can provide stable and efficient thermal energy conversion, and is an indispensable material in modern heating technology.

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 electrical resistivity: Cr10Ni90 alloy flat wires have high electrical resistivity and can generate large currents at lower voltages, achieving rapid heating.
Good corrosion resistance: The addition of chromium improves the corrosion resistance of the alloy, allowing the flat wire to remain stable in various environments.
High temperature strength: Even in high temperature environments, Cr10Ni90 alloy flat wire can also maintain its strength and shape, and is not easily deformed.
Oxidation resistance: The high content of nickel endows the alloy flat wire with good oxidation resistance, making it suitable for long-term use at high temperatures.
Processing performance: Cr10Ni90 alloy flat wire is easy to process into precise shapes and sizes, meeting specific application requirements.

Application:

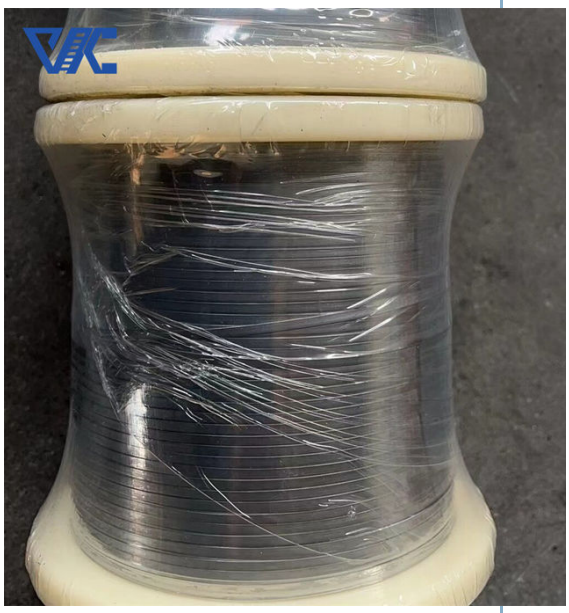
Electric heater manufacturing: Cr10Ni90 flat wire is often used to manufacture various types of electric heaters, such as household electric water heaters, dryers, heating furnaces, etc. Due to its high electrical resistivity and excellent high-temperature resistance, it can quickly and stably generate heat, meeting the heating needs of different application scenarios.
Industrial heat treatment equipment: In the industrial field, Cr10Ni90 flat wire is widely used in the manufacturing of heating elements in various heat treatment equipment, such as annealing furnaces, heat treatment furnaces, melting furnaces, etc. Its high-temperature stability and corrosion resistance enable it to operate stably for a long time in high-temperature environments, achieving heating and treatment of metal materials.
Laboratory heating device: In scientific research and laboratory fields, Cr10Ni90 flat wire is often used to manufacture laboratory heating devices, such as pyrolysis analyzers, heat treatment devices, heating plates, etc. Its stable performance and reliable heating effect can meet the heating needs of scientific research and experiments.
Food heating equipment: Cr10Ni90 flat wire is also commonly used in the manufacturing of heating elements for food heating equipment, such as ovens, microwaves, etc. Its efficient heating performance and food grade safety performance make it an ideal choice for food heating equipment.
Overall, Cr10Ni90 nickel chromium flat wire has a wide range of applications in the field of resistance heating elements. Its stable performance and excellent heating effect make it one of the key materials for various heating equipment and devices.

FAQ :

Q1: What are the main advantages of Cr10Ni90 nickel chromium flat wire in resistance heating elements?
The main advantages of Cr10Ni90 nickel chromium flat wire are its high electrical resistivity and good corrosion resistance, as well as its stable resistance and strength at high temperatures, making it very suitable for manufacturing resistance heating elements.

Q2: What is the oxidation resistance of Cr10Ni90 alloy flat wire and how does it behave in high temperature environments?
A2: Cr10Ni90 alloy flat wire has excellent oxidation resistance, which can maintain stability even in high temperature environments and is not easily oxidized, thus ensuring the long-term stable operation and service life of heating elements.

Q3: Do resistance heating elements made with Cr10Ni90 nickel chromium flat wire require special maintenance?
A3: Due to the high stability and corrosion resistance of Cr10Ni90 alloy flat wire, its resistance heating elements usually do not require special maintenance.



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