Household Appliances Cr20Ni80 Nickel Alloy Wire With High Temperature Resistance

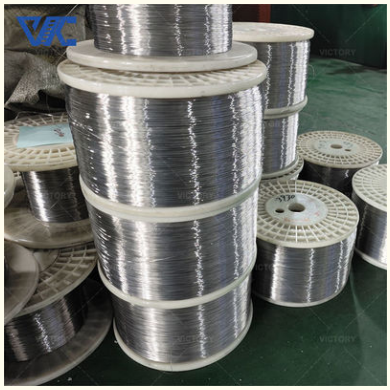
Our Product Introduction

Basic Information

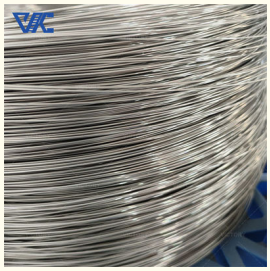
- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: Cr20Ni80
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Spool package with Carton box, Coil package with polybag for Resistance wire
- Delivery Time: 7 to 20 Days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month

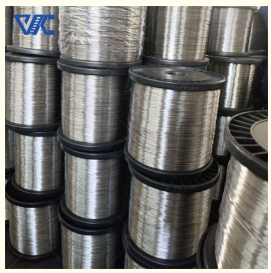
Product Specification

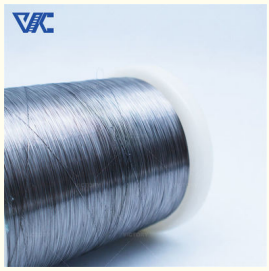
- Product Name: Nichrome Alloy Wire
- Material: Nickel, Chromium
- Nickel(Min): 77%
- Melting Point: 1400-1450°C
- Electrical Resistivity: 1.1-1.2 μΩm
- Resistivity: 1.09+/-0.05
- Tensile Strength: 637MPA
- Hardness: HV400-500
- Thermal Conductivity: 15-20 W/mK
- Elongtation: ≥20%
- Condition: Hard / Soft
- Sureface: Bright, Oxided, Acide
- Application: Electric Kettle, Electric Oven, Electric Water Heater, Electric Blanket, Induction Cooker
- Highlight: **Household Appliances Nickel Alloy Wire,**



More Images







Product Description

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Product Description:

Cr20Ni80 nichrome alloy wire is a high-performance electric heating alloy material composed of nickel and chromium, known for its at least 77% nickel content and excellent electric heating conversion efficiency. This alloy wire has a high melting point of 1400-1450 ° C and an electrical resistivity of 1.1-1.2 μ Ω m, ensuring stability and efficient energy conversion in high-temperature environments. Its tensile strength of 637MPA and hardness of HV400-500 provide necessary mechanical support, while its thermal conductivity of 15-20 W/mK allows for rapid heat transfer. In addition, the elongation of alloy wire exceeds 20%, which can meet the processing needs of different applications, whether it is in the hard or soft state. The surface treatment includes brightness, oxidation, and acid washing, which increases its corrosion resistance and aesthetics.
Cr20Ni80 nickel chromium alloy wire is widely used in the field of household appliances, including electric kettles, ovens, water heaters, electric blankets, and induction cookers. These applications benefit from the rapid heating effect brought by their high electrical resistivity, excellent stability at high temperatures, and good mechanical properties. Whether as a heating element or a resistance material, Cr20Ni80 alloy wire can provide reliable and long-lasting performance, making it an indispensable choice for electric heating materials in modern household appliances.

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		**Cr20Ni80**
Composición	**Ni**	Rest
	Cr	20.0 23.0
	Fe	≤1.0
Temperatura máxima°C		1200
Punto de fusion °C		1400
Densidad g/cm3		8.4
Resistividad μΩ·m,20°C		1.09±0.05
Alargamiento a la ruptura		≥20
Calor especifico J/g.°C		0.44
Conductividad térmica KJ/m.h°C		60.3
Coeficiente de expansión de líneas a×10-6/(20 1000°C)		18
Estructura micrográfica		Austenite
Propiedades magnéticas		Nonmagnetic

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

Cr20Ni80 characteristics:

High resistivity: Cr20Ni80 alloy wire has high resistivity and can generate large currents at lower voltages, quickly heating objects.
High temperature resistance: capable of stable operation at temperatures up to 1200 °C, suitable for various high-temperature heating needs.
Corrosion resistance: Contains alloy elements such as nickel and chromium, endowing Cr20Ni80 alloy wire with excellent corrosion resistance.
Antioxidant: In high-temperature oxidation environments, Cr20Ni80 alloy wire is not easily oxidized and maintains long-term stable electric heating performance.
High temperature strength: With high temperature strength, it can withstand large mechanical loads even in high temperature environments.

Application:

The application of Cr20Ni80 nickel chromium alloy wire in the field of household appliances mainly includes the following aspects:
Electric kettle: Cr20Ni80 alloy wire is commonly used as a heating element in electric kettles due to its high electrical resistivity and good high-temperature resistance, providing stable and efficient heating effects.
Electric oven: In an electric oven, As a heating element, Cr20Ni80 alloy wire can withstand high temperatures and maintain stable performance, ensuring uniform temperature inside the oven.
Electric water heater: Cr20Ni80 alloy wire can also be used in electric water heaters to provide fast and continuous hot water supply.
Electric blanket: In the heating element of an electric blanket, Cr20Ni80 alloy wire has been applied due to its excellent electric heating conversion efficiency and safety.
Electric iron: The heating element in the electric iron also uses Cr20Ni80 alloy wire to ensure a uniform and stable heat source, making it convenient for ironing clothes.
Other household appliances: In addition to the above applications, Cr20Ni80 alloy wire may also be used in other household appliances that require electric heating function, such as microwaves, induction cookers, etc.
Cr20Ni80 nickel chromium alloy wire plays an important role in the field of household appliances due to its excellent physical and chemical properties, providing users with efficient, stable, and safe electric heating solutions.

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 main advantages of Cr20Ni80 nickel chromium alloy wire in household appliances?
The main advantages of Cr20Ni80 nickel chromium alloy wire are its high electrical resistivity and high temperature resistance, which enables it to provide fast and stable heating effects in household appliances while maintaining long-term durability.

Q2: Is it safe to use household appliances made of Cr20Ni80 nickel chromium alloy wire?
A2: Yes, Cr20Ni80 alloy wire has excellent corrosion resistance and oxidation resistance, which can work stably at high temperatures, ensuring the safety and reliability of household appliances.

Q3: Is Cr20Ni80 nickel chromium alloy wire easy to process in home appliance manufacturing?
A3: Cr20Ni80 alloy wire has good processing performance and is easy to process into various shapes and specifications to meet the design and manufacturing needs of different household appliances.

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