High Performance Cr20Ni80 Resistance Wire For Household And Industrial Appliances

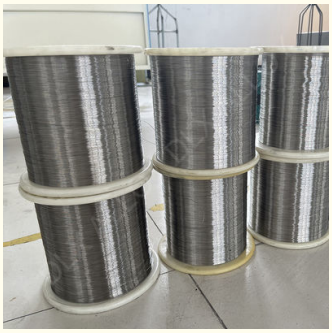
Our Product Introduction

Basic Information

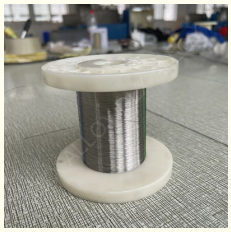
- Place of Origin: China
- Brand Name: Victory
- Certification: CE
- Model Number: Cr20Ni80
- Minimum Order Quantity: 5
- Packaging Details: Spool package with Carton box, Coil package with polybag for Resistance wire
- Delivery Time: 5-21 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month

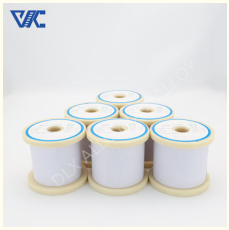
Product Specification

- Applications: Heating Elements, Furnaces, Electrical Components
- Nickel(Min): 77%
- Elongation: ≥20%
- 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
- Name: NiCr Alloy
- Highlight: **Industrial Appliances Cr20Ni80 Resistance Wire**, **Household Cr20Ni80 Resistance Wire**, **High Performance Cr20Ni80 Resistance Wire**



More Images





Our Product Introduction

Product Description

High-Performance Cr20Ni80 Resistance Wire For Household And Industrial Appliances
Introduction:

Cr20Ni80 nickel-chromium alloy wire is a high-performance resistance electric heating alloy, mainly composed of 20% chromium and 80% nickel, with high resistivity, good oxidation resistance, high temperature resistance and excellent high temperature stability. Its resistivity is about 1.09μΩ·m at 20°C, and it increases linearly with the increase of temperature, which can effectively convert electrical energy into thermal energy. The melting point of this alloy is about 1400°C, and the maximum operating temperature can reach 1200°C. It can still maintain stable resistance value and mechanical properties in high temperature environment.
Due to its excellent performance, Cr20Ni80 alloy wire is widely used in the fields of industry and household appliances, including electric heating elements, heaters, heat treatment equipment, electric furnace wire, ceramic heaters, etc. In the home environment, it is used to manufacture heating elements for electric ovens, electric water heaters, hair dryers and other equipment, which can ensure the safety and efficiency of the equipment in long-term use.

Performance material		Cr10Ni90	Cr20Ni80	Cr30Ni70	Cr15Ni60	Cr20Ni35
Composición	Ni	90	Rest	Rest	55.0 61.0	34.0 37.0
	Cr	10	20.0 23.0	28.0 31.0	15.0 18.0	18.0 21.0
	Fe		≤1.0	≤1.0	Rest	Rest
Temperatura máxima°C		1300	1200	1250	1150	1100
Punto de fusion °C		1400	1400	1380	1390	1390
Densidad g/cm3		8.7	8.4	8.1	8.2	7.9
Resistividad μΩ·m,20°C		0.76±0.05	1.09±0.05	1.18±0.05	1.12±0.05	1.00±0.05
Alargamiento a la ruptura		≥20	≥20	≥20	≥20	≥20
Calor especifico J/g.°C			0.44	0.461	0.494	0.5
Conductividad térmica KJ/m.h°C			60.3	45.2	45.2	43.8
Coeficiente de expansión de líneas a×10-6/(20 1000°C)			18	17	17	19
Estructura micrográfica			Austenite	Austenite	Austenite	Austenite
Propiedades magnéticas			Nonmagnetic	Nonmagnetic	Nonmagnetic	Weak magnetic

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

Application fields:

Household appliances:
Electric kettles, ovens, electric stoves: Cr10Ni90 wire is used as heating elements to provide fast and uniform heating effects.
Hair dryers, hair curlers: used in small heating devices to ensure efficient heat conversion.
Electric blankets, heating pads: provide stable heat output to ensure long-term use.
Industrial appliances:
Industrial furnaces, heat treatment equipment: used for high-temperature heating elements, able to maintain stable performance under extreme temperatures.
Chemical reactors, evaporators: suitable for corrosive environments, providing reliable heating solutions.
Laboratory equipment: such as heating furnaces, test furnaces, providing precise temperature control.

Service:

We provide comprehensive nickel-chromium alloy technical support and services to ensure the normal operation of our customers' products. Our experienced technical team will provide customers with various services such as installation, maintenance, troubleshooting, and answer any questions they may have about the product. We also provide customized solutions, designing and manufacturing nickel-chromium alloy products according to customer needs. We are committed to ensuring customers are satisfied with their purchases, providing timely support and building great relationships.

contact us

email:victory@dlx-alloy.com
Oem service:
Welcome customized size
We are experience factory for OEM&ODM service

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: Cr20Ni80, Cr30Ni70, Cr15Ni60, Cr20Ni35, Cr20Ni30

FAQ:

1. What material is Cr20Ni80?
Cr20Ni80 is a nickel-chromium alloy, the main components of which are 20% chromium and 80% nickel, and is used for high-temperature electric heating elements.
2. What is the resistivity of Cr20Ni80?
The resistivity is about 1.1 Ω·mm²/m (20°C), which is suitable for making electric heating wires.
3. What is the maximum operating temperature of Cr20Ni80?
The maximum operating temperature can reach 1200°C, but it is recommended to be below 1000°C for long-term use.

Changzhou Victory Technology Co., Ltd

+8619906119641 victory@dlx-alloy.com victory-alloy.com

NO.32 West Taihu Road, Xinbei District, Changzhou, Jiangsu