Ni80cr20 Nichrome Wire Nickel Chromium Electric Resistance Wire Heating Element Wire

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: CE
- Model Number: Cr20Ni80
- Minimum Order Quantity: 3.5
- Price: 5-100kg, $20-$30
- Packaging Details: Spool package with Carton box, Coil package with polybag for Resistance wire
- Delivery Time: 5-20 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: **Electric Resistance Ni80cr20 Nichrome Wire**, **Heating Element Ni80cr20 Nichrome Wire**, **Nickel Chromium Electric Resistance Wire**

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Our Product Introduction

Product Description

Ni80cr20 Nichrome Wire Nickel Chromium Electric Resistance Wire Heating Element Wire Introduction:

1. Ni80Cr20 wire is a type of resistance wire that is commonly used in heating elements, resistors, and various electrical applications. It is made up of 80% nickel and 20% chromium, which gives it high electrical resistance and excellent oxidation resistance at high temperatures. Ni80Cr20 wire is known for its stability, durability, and ability to withstand high temperatures, making it suitable for use in a wide range of industrial and commercial applications.

2.Mechanical properties of ni80cr20 wire
Ni80Cr20 wire, also known as Nichrome 80/20, has the following mechanical properties:
Tensile Strength: Ni80Cr20 wire typically has a high tensile strength, which means it can withstand pulling forces without breaking easily.
Elongation: It has a moderate elongation, allowing it to stretch slightly under tension before breaking.
Hardness: Ni80Cr20 wire is known for its hardness, which contributes to its durability and resistance to deformation.
Ductility: It exhibits good ductility, meaning it can be drawn into wires or other shapes without breaking.
These mechanical properties make Ni80Cr20 wire a popular choice for applications where strength, durability, and resistance to high temperatures are required.

3. High temperature performance: Cr20Ni80 alloy wire can work stably in high temperature environments. It has a high melting point and good oxidation resistance, and can withstand high temperature environments in high temperature heating and heating element applications, with a maximum use temperature of up to 1200 degrees Celsius.

4. Resistivity: Cr20Ni80 alloy wire has moderate resistivity, making it a commonly used resistance wire material. Its resistivity is usually in the range of 1.09-1.12 μΩ·m and can be adjusted as needed.

5. Corrosion resistance: Cr20Ni80 alloy wire shows good corrosion resistance in common acid and alkali media. It can resist corrosion by acids and alkalis of general concentrations, but it still needs to be used with caution in special corrosive media.

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

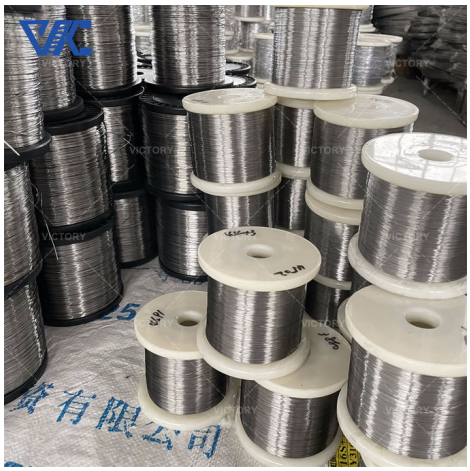
Form	**Specification**	
Wire	Diameter=0.025mm~8mm	
Flat wire	Width=0.40~6.0mm	Thick=0.03~0.50mm
Strip	width=8~250mm	Thick=0.05~3.0mm
Bar	Diameter=8~100mm	Long=50~1000

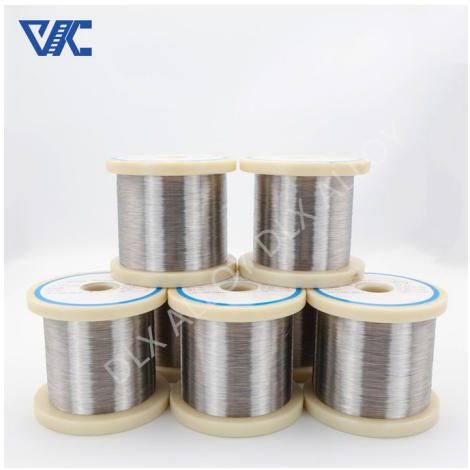
Application fields:

Due to its high temperature performance and corrosion resistance, Cr20Ni80 alloy wire is widely used in industrial heaters, electric furnace heating elements, hot blast furnaces, resistance heaters, heat treatment equipment and other fields. It is also used to make electric heating elements such as resistance wires, heating wires, and electric heaters.

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:

Are you a manufactuer?
Yes, we are the factory and mailny produce heating resistance alloy wire, like Fecral/Nichrome material.

What is the chemical composition of Cr20Ni80 alloy wire?
The chemical composition of Cr20Ni80 alloy wire is approximately 20% chromium (Cr) and 80% nickel (Ni).

What is the diameter range of Cr20Ni80 alloy wire?
The diameter range of Cr20Ni80 alloy wire can be customized according to needs, usually ranging from a few microns to a few millimeters.

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