

Resistance Wire Bright Nichrome 80 NiCr 80/20 Flat Wire / Strips Max Width 200-250mm

Basic Information

- Place of Origin:
- Brand Name:
- Certification:
- Model Number:
- Minimum Order Quantity: 50 KGS
- Price:
- Packaging Details:
- Delivery Time:
- Payment Terms: L/C, T/T, D/A

China

Victory

NiCr 80/20

Wooden Case

50 - 500 kgs \$35-\$43

21-45 working days

10 Tons Per Month

ISO

Supply Ability:



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BLX

之信科技有限公司

Product Specification

•	Highlight:	Nichrome 80 NiCr Strips , Nichrome 80 NiCr Flat Wire , Bright Anneal Nichrome 80 NiCr Strips
•	Use:	Resistance Wire
•	Magnetic Properities:	Nonmagnetic
•	Thermal Conductivity KJ/m.h °C:	60.3
•	Melting Point:	1400°C
•	Max Working Temperature:	1200°C
•	Elongation At Rupture:	≥20%
•	Resistivity:	1.09±0.05
•	Density:	8.40 G/cm3
•	Max Width:	200-250mm
•	Surface:	Bright/Acid White/Oxidized
•	Material:	Cr20Ni80



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description:

Resistance wire made from Nichrome alloy is a versatile and widely used material in various industries due to its unique electrical and thermal properties. Below are the primary applications of resistance wire made from Nichrome alloy: 1 Heating Elements: Nichrome resistance wire is extensively employed in heating elements for appliances such as electric ovens, toasters, furnaces, and industrial heating systems. Its high electrical resistance and excellent heat generation capabilities make it an ideal choice for converting electrical energy into heat.

2 Industrial Processes: Nichrome resistance wire plays a crucial role in industrial processes that require controlled heating, such as heat sealing, plastic molding, soldering, and industrial furnaces. It provides consistent and uniform heat distribution, ensuring efficient and reliable operation.

3 Electrical Appliances: Nichrome resistance wire is commonly utilized in electrical appliances where heating is required, including hairdryers, heating pads, electric blankets, and soldering irons. Its ability to generate heat quickly and withstand high temperatures makes it an essential component in such devices.

Cr20Ni80 is an ideal material with good ductility under high temperature and seismic strength. It is not easy to deform under high temperature use, its structure is not easy to change, and it has good processability and weldability. Nickel-chromium and nickel-chromium iron alloys are the most widely used high-resistance electric heating alloys. They have high and stable resistance, corrosion resistance, high temperature resistance and oxidation resistance, good flexibility, good plasticity after long-term use, and easy repair. The same type of The permanent elongation is very small, its emissivity is high, it is non-magnetic, and it has excellent comprehensive properties. It is the first choice for producing high-quality electrical components. It is a high-resistance nickel-chromium alloy used in resistance heating elements. It forms an attached layer of chromium oxide when heated for the first time. The material under the wire will not oxidize, preventing the wire from breaking or burning out. These components are often used in precision heating fields such as medical diagnostics, satellites and aerospace, electrical appliance industry, ironing machines, water heaters, plastic molding molds, soldering irons, metal sleeve components, cartridge components.

How about the nichrome strip working performance in furnace heating project?

Nichrome strips are widely used in furnace heating applications due to their excellent performance and advantages. Here are some key points about the working performance of nichrome strips in furnace heating projects:

1. High-Temperature Resistance:

Nichrome has a high melting point (around 1400°C) and can withstand prolonged exposure to high temperatures inside furnaces without degrading or losing its properties.

2. Oxidation Resistance:

The chromium content in nichrome makes it highly resistant to oxidation, which is crucial in furnace environments where the heating elements are exposed to high temperatures and oxygen.

3. Durability and Long Lifespan:

Nichrome strips have a long service life and can operate reliably for extended periods in furnace heating applications, minimizing the need for frequent replacements.

4. Efficient Heat Generation:

The high electrical resistance of nichrome allows it to generate heat efficiently when an electric current is passed through the strips, making it an effective heating element.

5. Precise Temperature Control:

The consistent and predictable heating characteristics of nichrome strips enable precise temperature control in furnace heating systems, which is crucial for many industrial and manufacturing processes.

6. Easy Integration:

Nichrome strips can be easily integrated into various furnace designs and heating systems, providing flexibility in the design and installation of the heating elements.

7. Cost-Effectiveness:

Compared to some other high-temperature heating materials, nichrome is relatively cost-effective, making it a popular choice for furnace heating applications.



Performance material		Cr10Ni90	Cr20Ni80	Cr30Ni70	Cr15Ni60	Cr20Ni35	Cr20Ni30
	Ni	90	Rest	Rest	55.0 61.0	34.0 37.0	30.0 34.0
Composic ión	Cr	10	20.0 23.0	28.0 31.0	15.0 18.0	18.0 21.0	18.0 21.0
	Fe		≤1.0	≤1.0	Rest	Rest	Rest
Max. temperature(°C)		1300	1200	1250	1150	1100	1100
Melting Point °C		1400	1400	1380	1390	1390	1390
Density(g/cm3)		8.7	8.4	8.1	8.2	7.9	7.9
Resistivity at 20ºC(μΩ@m)		0.76±0.05	1.09±0.0 5	1.18±0.0 5	1.12±0.05	1.00±0.05	1.04±0.05
Elongation at rupture(%)		≥20	≥20	≥20	≥20	≥20	≥20
Specific Heat J/g.°C			0.44	0.461	0.494	0.5	0.5
Thermal c KJ/m.h°C	conductivity		60.3	45.2	45.2	43.8	43.8
Coefficient of lines expansion a×10- 6/(20 1000°C)			18	17	17	19	19
Micrograp	hic structure		Austenite	Austenite	Austenite	Austenite	Austenite
Magnetic	properties		Nonmag netic	Nonmagn etic	Nonmagn etic	Weak magnetic	Weak magnetic



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