

# Cr20Ni80 Wire Nickel Alloy 1400°C Melting Point Used In Industrial Furnaces

## **Basic Information**

- Place of Origin:
- Brand Name:
- Certification:
- Model Number:
- Minimum Order Quantity: 5
- Price:
- Packaging Details:
- Delivery Time:
- Payment Terms: L/C,
- Supply Ability:
- 50 KGS 50 - 500 kgs \$35-\$43 Wooden Case
- 21-45 working days
- L/C, T/T, D/A

China

Victory

NiCr 80/20

ISO

10 Tons Per Month



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BLX

斯之德科技有限公司

### **Product Specification**

•	Material:	Nickel, Chromium
•	Surface:	Bright/Acid White/Oxidized
•	Max Width:	200-250mm
•	Density:	8.40 G/cm3
•	Resistivity:	1.09±0.05
•	Elongation At Rupture:	≥20%
•	Max Working Temperature:	1200°C
•	Melting Point:	1400°C
•	Thermal Conductivity KJ/m.h °C:	60.3
•	Magnetic Properities:	Nonmagnetic
•	MOQ:	10-50KGS
•	Lead Time:	15-35 Days After Order Confirm
•	Highlight:	1400°C Melting Point Cr20Ni80 Wire, Industrial Furnaces Cr20Ni80 Wire,

Cr20Ni80 Wire



# More Images



**Our Product Introduction** 

### Cr20Ni80 Wire: Nickel Alloy 1400°C Melting Point Used In Industrial Furnaces

Cr20Ni80 nickel-chromium alloy wire is a high-performance resistive electric heating material, mainly composed of 80% nickel and 20% chromium, with a high melting point (about 1400°C-1450°C), and can operate stably at working temperatures up to 1200°C. The resistivity of this alloy wire is about  $1.09\mu\Omega$ ·m at 20°C, and it can maintain a stable resistance value in a high-temperature environment. Its excellent oxidation resistance and corrosion resistance make it perform well in high-temperature oxidizing atmospheres, and it also has good processing properties and can be processed into wires of different diameters. Cr20Ni80 alloy wire is widely used in industrial furnaces, electric heating elements, resistors, and high-temperature heating equipment, and is especially suitable for scenes that require long-term high-temperature stable operation. Its high melting point and good high-temperature stability make it an ideal material for industrial heating and household appliances.

### Advantages

High resistivity and efficient heat conversion: Cr10Ni90 wire has a high resistivity and can provide high-power heating effects in a small cross-sectional area.

High temperature stability: It can work stably for a long time at temperatures up to 1300°C and has excellent anti-oxidation performance.

Corrosion resistance: The high nickel content makes it perform well in humid and corrosive environments.

Good processing performance: It is easy to process into different shapes and suitable for winding into heating elements. Non-magnetic: It is suitable for devices that are sensitive to magnetic fields.

Fast heating response: Due to its high resistance characteristics, Cr10Ni90 wire can heat up quickly and provide efficient heating effects.

Performance	e material	Cr10Ni90	Cr20Ni80	Cr30Ni70	Cr15Ni60	Cr20Ni35	Cr20Ni30
	Ni	90	Rest	Rest	55.0 61.0	34.0 37.0	30.0 34.0
Composició n	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 Poin	t °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±0.05	1.18±0.05	1.12±0.05	1.00±0.05	1.04±0.05
Elongation a	t rupture(%)	≥20	≥20	≥20	≥20	≥20	≥20
Specific Hea	ıt J/g.℃		0.44	0.461	0.494	0.5	0.5
Thermal con	ductivity KJ/m.h°C		60.3	45.2	45.2	43.8	43.8
Coefficient o a×10-6/(20 1	f lines expansion 000°C)		18	17	17	19	19
Micrographic	c structure		Austenite	Austenite	Austenite	Austenite	Austenite
Magnetic pro	operties		Nonmagnet ic	Nonmagnet ic	Nonmagneti c	Weak magnetic	Weak magnetic

#### Q&A

1. Is Cr20Ni80 suitable for electric heating elements?

Yes, it is resistant to high temperatures, oxidation, and has stable resistance. It is a common heating wire material.

2. Is Cr20Ni80 difficult to process?

It has good processability, but hardens quickly and requires regular annealing.

3. How is the oxidation resistance of Cr20Ni80?

It has strong oxidation resistance, and a chromium oxide protective film will form on the surface, which is suitable for high temperature environments.



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