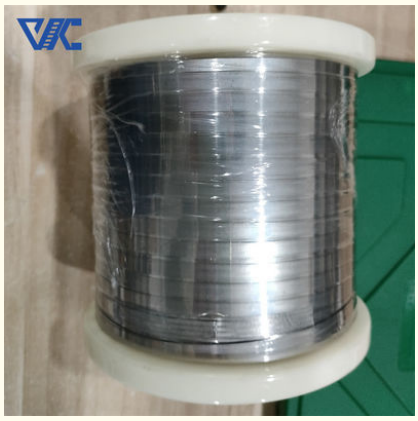
Factory Price Nichrome Alloy Cr20Ni80 Ni80 Electrical Heating Resistance Flat Wire / Robbins

Our Product Introduction

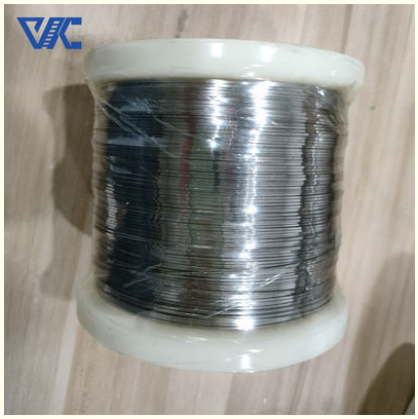
Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: ISO
- Model Number: Ni80Cr20
- Minimum Order Quantity: 3 KGS
- Price: 3 - 500 kgs $35-$42
- Packaging Details: Wooden Case
- Delivery Time: 21-36 working days
- Payment Terms: L/C, T/T, D/A
- Supply Ability: 10 Tons Per Month



Product Specification

- Material: Nickel, Chromium
- Surface: Bright/Acid White/Oxidized
- 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: 2-5KGS
- Lead Time: 15-35 Days After Order Confirm
- Highlight: **Robbins Nichrome Alloy**, **Nichrome Alloy Cr20Ni80**, **Electrical Heating Resistance Flat Wire**



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Our Product Introduction

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Product Description

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Cr20Ni80 flat wire, also known as Nichrome 80 flat wire, is a type of nickel-chromium alloy wire that has a flat, ribbon-like cross-sectional shape.

Some key characteristics of Cr20Ni80 flat wire include:

1. Composition:
The alloy typically contains around 80% nickel and 20% chromium, with small amounts of other elements like iron, manganese, and silicon.

2. Flat shape:
The wire has a rectangular or ribbon-like cross-section, unlike the more common round wire shape.
The flat profile can provide advantages in certain heating applications, such as increased surface area for heat transfer.

3. Electrical and thermal properties:
Like other Nichrome alloys, Cr20Ni80 flat wire has a high electrical resistance and good thermal conductivity.
These properties make it suitable for use in heating elements, resistors, and other electrical heating applications.

4. Corrosion and oxidation resistance:
The chromium content in the alloy provides good resistance to corrosion and oxidation at high temperatures.
This makes Cr20Ni80 flat wire suitable for use in harsh environments or applications that require long-term durability.

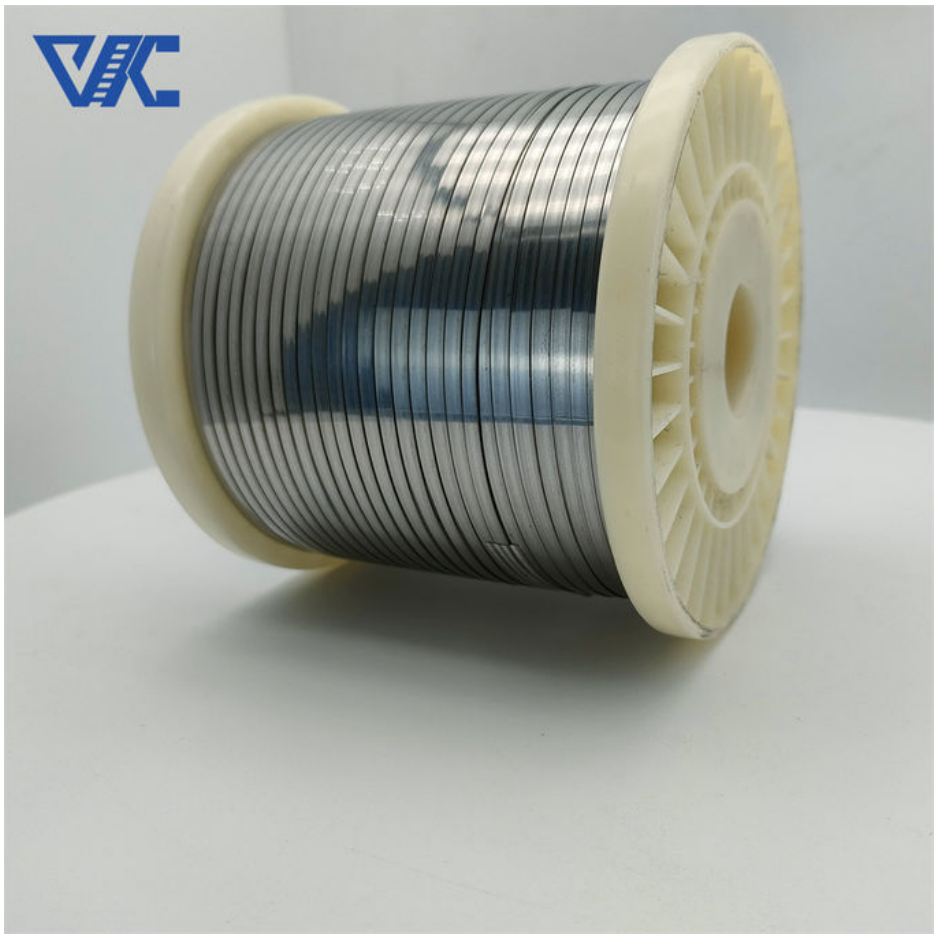
5. High-temperature strength:
The alloy maintains its mechanical strength and stability at elevated temperatures, typically up to around 1100°C (2000°F).

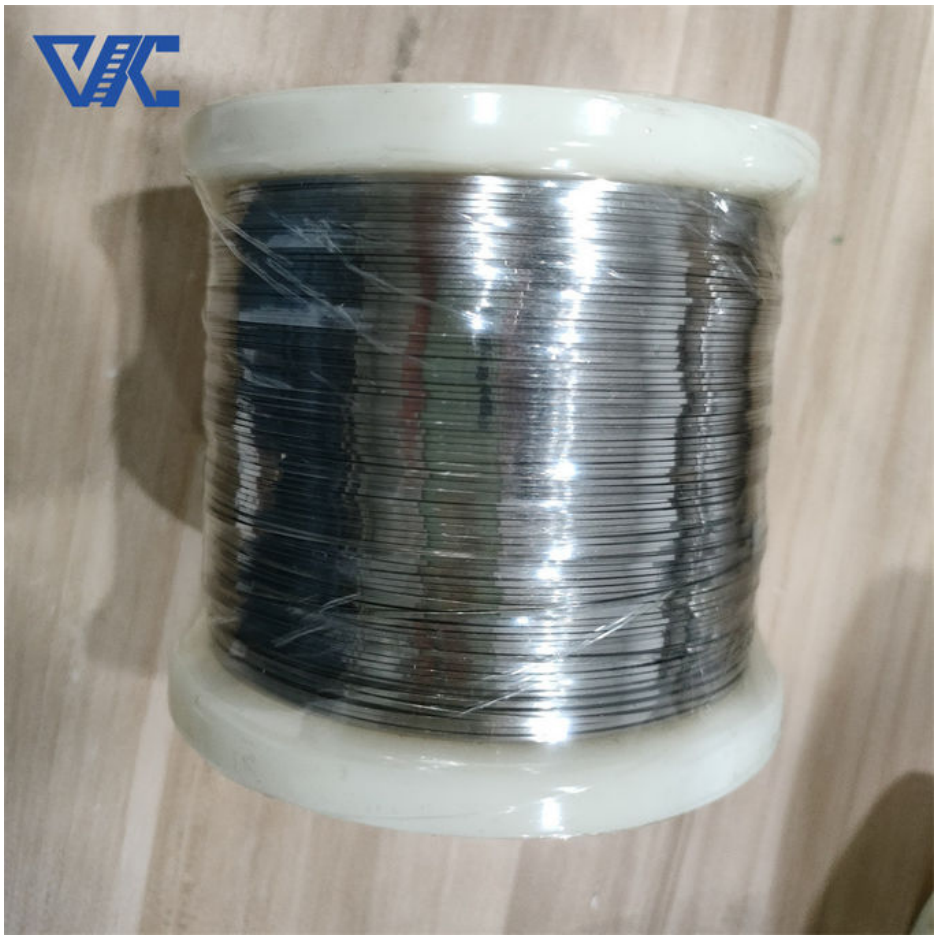
Common applications of Cr20Ni80 flat wire include:

1. Heating elements in industrial furnaces, ovens, and kilns
2. Resistors and heating components in electronic devices
3. Heating tapes and cables for temperature control and maintenance
4. Specialized heating applications that benefit from the flat wire shape

The unique shape and material properties of Cr20Ni80 flat wire make it a versatile choice for various heating and resistance-related applications that require a combination of high-temperature performance, corrosion resistance, and efficient heat transfer.

Performance material		Cr10Ni90	Cr20Ni80	Cr30Ni70	Cr15Ni60	Cr20Ni35	Cr20Ni30
Composición	Ni	90	Rest	Rest	55.0 61.0	34.0 37.0	30.0 34.0
	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±0.05	1.18±0.05	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 conductivity KJ/m.h°C			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
Micrographic structure			Austenite	Austenite	Austenite	Austenite	Austenite
Magnetic properties			Nonmagnetic	Nonmagnetic	Nonmagnetic	Weak magnetic	Weak magnetic





Changzhou Victory Technology Co., Ltd

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

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