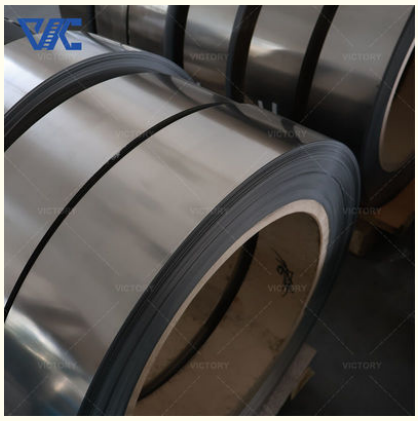
0.05mm 0.10mm Ultra Thin Nichrome 80 Alloy Cr20Ni80 Heating Resistance Flat Strip In Coils

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: ISO
- Model Number: Ni80Cr20
- Minimum Order Quantity: 10 KGS
- Price: 10 - 500 kgs $37-$49
- 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: 10-50KGS
- Lead Time: 15-35 Days After Order Confirm
- Highlight: **0.10mm Nichrome 80 Alloy**, **Nichrome 80 Alloy Flat Strip**, **0.05mm Nichrome 80 Alloy**

More Images

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Product Description

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Nichrome Cr20Ni80 is a nickel-chromium-based alloy resistance strip that is commonly used in a variety of heating and sensing applications. The alloy composition consists of approximately 20% chromium and 80% nickel, with the remaining percentage being primarily iron and other minor alloying elements.

The main advantages of the Nichrome CR20Ni80 resistance strip are:

1. Extremely High Electrical Resistivity:
The CR20Ni80 alloy has an exceptionally high electrical resistivity, typically in the range of 1.08-1.13 ohm-mm²/m.
This high resistivity makes the strip well-suited for applications requiring high-resistance heating and sensing elements, as it can achieve the desired resistance with a smaller cross-sectional area.

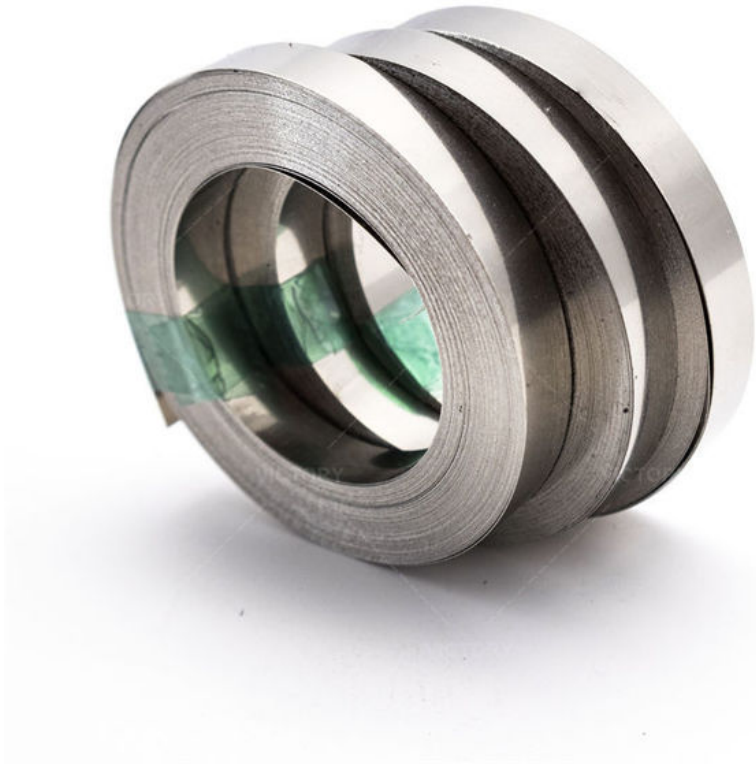
2. Outstanding Oxidation Resistance:
The high chromium content (around 20%) provides excellent oxidation resistance to the alloy.
This allows the CR20Ni80 strip to operate at extremely high temperatures, often exceeding 1200°C, without significant degradation or oxidation.
The superior oxidation resistance is crucial for applications where the strip is exposed to high-temperature environments for extended periods.

3. Excellent High-Temperature Strength:
The combination of chromium and nickel in the alloy composition gives the CR20Ni80 strip exceptional high-temperature strength and creep resistance.
This property enables the use of the strip in applications that require sustained exposure to extreme heat, such as industrial furnaces and kilns.

4. Superb Corrosion Resistance:
The high nickel content (around 80%) contributes to the alloy's superior corrosion resistance.
This makes the CR20Ni80 strip suitable for use in highly corrosive environments, where it can withstand chemical attacks and maintain its integrity.

5. Good Ductility:
The nickel-rich composition of the CR20Ni80 alloy provides a good balance of ductility and strength.
This allows the strip to be formed, shaped, and fabricated into various configurations as required by the application.

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



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