# X20H80 Ni80Cr20/NiCr 8020 Ni80 Nichrome Heating Resistance Wire

#### 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 w

Spool package with Carton box, Coil package with polybag for Resistance wire

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• Delivery Time: 5-20 days

• Payment Terms: L/C, T/T, Western Union, MoneyGram

• Supply Ability: 300 tons per month



#### **Product Specification**

Applications: Heater, Heating Elements, Industry, Etc,

Oven

Nickel(Min): 77% • Elongation: ≥20% Melting Point: 1400-1450°C Electrical Resistivity: 1.1-1.2 μΩm Resistivity: 1.09+/-0.05 637MPA • Tensile Strength: Hardness: HV400-500 Thermal Conductivity: 15-20 W/mK Name: NiCr Alloy

• Shape: Wire, Strip, Ribbon, Foil, Round And Flat

• Density: <9.6g/cm3

Material: Nichrome, Nickel Chrome Alloy, Cu Ni, NiCr,

Chromium

Thekhelet.



#### More Images









#### **Product Description**

## X20H80 Ni80Cr20/NiCr 8020 Ni80 nichrome heating resistance wire Introduction:

The Ni80 Nichrome heating resistance wire typically has the following specifications:

Nickel (Ni): Approximately 80% Chromium (Cr): Around 20%

Maximum Operating Temperature: Up to 1200°C (2192°F)

Resistivity: Approximately 1.09  $\mu\Omega{\cdot}m$ 

Density: About 8.4 g/cm<sup>3</sup>

Melting Point: Around 1400°C (2552°F)

Tensile Strength: Typically between 600-900 MPa

Elongation: Generally around 20-35%

Nichrome wire, such as Ni80Cr20 wire, finds applications in various industries and products due to its unique properties. Some common applications of Nichrome wire include:

Heating Elements: Nichrome wire is widely used in heating elements for electric ovens, toasters, space heaters, industrial furnaces, and other heating appliances due to its high electrical resistance and ability to generate heat efficiently.

Resistors: It is used in resistors for regulating electrical current and voltage in electronic circuits. Industrial Furnaces: Nichrome wire is used in industrial furnaces for high-temperature applications due to its excellent oxidation resistance and durability at elevated temperatures.

- 2. 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.
- 3. 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  $\mu\Omega$ ·m and can be adjusted as needed.
- 4. 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	Nonmagneti c	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

#### 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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