



Cr10Ni90 Nichrome Wire 637MPa Tensile Strength In Industrial Heating Applications

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: CE
- Model Number: Cr10Ni90
- Minimum Order Quantity: 5
- Packaging Details: Spool package with Carton box, Coil package with polybag for Resistance wire
- Delivery Time: 5-21 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month



Product Specification

- Material: Nickel, Chromium
- Nickel(Min): 89%
- Tensile Strength: 637MPa
- Magnetic Permeability: 0.78+/-0.05
- Elongation: ≥20%
- Application: Heating, Resistivity
- Condition: Hard / Soft
- Surface: Bright, Oxided, Acide
- Delivery Time: 7-20 Days
- Name: NiCr Alloy Wire
- Highlight: **Cr10Ni90 Nichrome Wire, Industrial Heating Nichrome Wire, 637MPa Nichrome Wire**



More Images



Product Description

Cr10Ni90 Nichrome Wire: 637MPa Tensile Strength In Industrial Heating Applications

Introduction:

Cr10Ni90 nickel-chromium alloy wire is composed of 90% nickel and 10% chromium, with high tensile strength (≥637 MPa) and good high temperature stability. It is a high-performance electric heating alloy material, widely used in industrial heating equipment and electric heating elements. The alloy has a maximum operating temperature of up to 1300°C, a melting point of about 1400°C, and a density of 8.7 g/cm³. Cr10Ni90 alloy wire not only has excellent oxidation resistance, but also has good flexibility, weldability and non-magnetic properties, and is suitable for long-term use in high temperature and corrosive environments. This material is often used to manufacture industrial furnaces, heaters, electric heating pipes and other equipment, especially in the fields of chemistry, petroleum, marine and household appliances.

Our Product Introduction

Feature:

High resistivity: suitable for electrothermal conversion materials, capable of generating heat efficiently.
 Excellent corrosion resistance: high nickel content makes it perform well in a variety of corrosive environments.
 High temperature stability: can work stably at temperatures up to 1300°C.
 Good processing performance: easy to process into different shapes, with good ductility and weldability.
 Non-magnetic: suitable for environments sensitive to magnetism.
 Anti-oxidation performance: not easy to oxidize at high temperatures, long service life.

Technical Parameters:

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 específico 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 α×10-6/(20 1000°C)			18	17	17	19
Estructura micrográfica			Austenite	Austenite	Austenite	Austenite
Propiedades magnéticas			Nonmagnetic	Nonmagnetic	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

**Service:**

By choosing our NiCr alloy heaters, you gain access to a heating solution that combines efficiency, reliability, and flexibility. We are committed to delivering top-quality products and services that enhance your production efficiency and reduce energy consumption. With our heaters, you can expect outstanding performance and a customized approach to meet your heating needs.

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

Q&A:

1. What are the main characteristics of Cr10Ni90 wire?

Cr10Ni90 wire is a nickel-chromium alloy resistance wire with high resistivity, good corrosion resistance and high temperature stability. It can still maintain stable mechanical and electrical properties under high temperature environment.

2. What are the application scenarios of Cr10Ni90 wire?

Cr10Ni90 wire is mainly used to manufacture electric heating elements, such as electric heating wires, electric heating rods, etc., and is widely used in household appliances (such as electric kettles, ovens) and industrial heating equipment (such as high-temperature heaters in the chemical and petroleum industries). In addition, it can also be used to manufacture resistance elements and thermocouple materials.

3. What is the processing performance of Cr10Ni90 wire?

Cr10Ni90 wire has good mechanical processing performance, is easy to carry out wire drawing, forming and other operations, and can be made into resistance wires of different shapes according to needs. It also has good weldability and flexibility, which is easy to install and maintain.



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