

China

Victory

Ni90Cr10

3 - 500 kgs \$36-\$45

21-36 working days

10 Tons Per Month

Cr10Ni90 Nichrome Alloy

Wooden Case

ISO

# Nichrome NiCr Alloy Cr10Ni90 Ni90 Electric High Corrosion Heating Resistance Wire

## Basic Information

- Place of Origin:
- Brand Name:
- Certification:
- Model Number:
- Minimum Order Quantity: 3 KGS
- Price:
- Packaging Details:
- Delivery Time:
- Payment Terms: L/C, T/T, D/A
- Supply Ability:

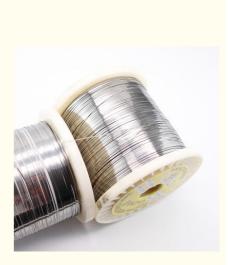


BLX

之信科技有限公司

### **Product Specification**

| Highlight:                                 | Ni90 Nichrome Alloy,<br>High Corrosion Nichrome Alloy, |
|--|--|
| • Lead Time:                               | 15-35 Days After Order Confirm                         |
| • MOQ:                                     | 2-5KGS   |
| Melting Point:                             | 1400°C   |
| Max Working Temperature:                   | 1300°C   |
| <ul> <li>Elongation At Rupture:</li> </ul> | ≥20%   |
| <ul> <li>Resistivity:</li> </ul>           | 0.76±0.05  |
| <ul> <li>Density:</li> </ul>               | 8.70 G/cm3   |
| Surface:                                   | Bright/Acid White/Oxidized                             |
| • Material:                                | Nickel, Chromium                                       |



### More Images



#### **Product Description**

#### Nichrome NiCr Alloy Cr10Ni90 Ni90 Electric High Corrosion Heating Resistance Wire With Factory Price

Nichrome wire is a nickel-chromium alloy that typically contains around 80-90% nickel and 10-20% chromium. The specific composition can vary slightly depending on the manufacturer, but the key alloying elements are nickel and chromium.

Nichrome wire is widely used for its high electrical resistance, excellent oxidation resistance, and ability to withstand high temperatures. It is commonly found in applications such as:

1. Heating elements:

Nichrome wire is extensively used in the manufacture of heating elements for various appliances and equipment, such as: Electric heaters, space heaters, and baseboard heaters Ovens, toasters, and other kitchen appliances Industrial furnaces, kilns, and heat treatment equipment

2. Resistance heating:

Nichrome's high electrical resistance makes it suitable for use in resistance heating applications, such as: Electric heating tapes and cables Resistance welding equipment Heating components in electronic devices

3. Thermal sensors and controls:

Nichrome's resistance-temperature relationship can be used in the design of thermal sensors and controls, such as: Thermocouples and resistance temperature detectors (RTDs) Thermal switches and thermostats

4. Heating coils and elements:

Nichrome wire is commonly used to construct heating coils and elements for various applications, including: Water heaters, immersion heaters, and steam generators Hot plates, griddles, and other cooking equipment Industrial drying and curing ovens

5. Industrial and laboratory equipment:

Nichrome's high-temperature and corrosion-resistant properties make it suitable for use in:

Laboratory equipment, such as hot plates, stirrers, and furnaces

Chemical processing equipment, including reactors and distillation columns

Aerospace and automotive applications, where high-performance heating is required

6. Specialty applications:

Nichrome wire can also be found in:

Resistors and rheostats for electronic circuits

Heating elements in cigarette lighters and other ignition devices Heating components in medical and scientific instrumentation

The versatility and reliable performance of Cr10Ni90 (Nichrome) wire make it a widely used material in a diverse range of heating and resistance-related applications across various industries.

| Performar                             | ice material   | Cr10Ni90  | Cr20Ni80      | Cr30Ni70      | Cr15Ni60  | Cr20Ni35  | Cr20Ni30  |
|---------------------------------------|----------------|-----------|---------------|---------------|-----------|-----------|-----------|
| Composic<br>ión                       | 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. temp                             | perature( °C ) | 1300      | 1200          | 1250          | 1150      | 1100      | 1100      |
| Melting Po                            | oint °C        | 1400      | 1400          | 1380          | 1390      | 1390      | 1390      |
| Density(g/                            | cm3)           | 8.7       | 8.4           | 8.1           | 8.2       | 7.9       | 7.9       |
| Resistivity<br>20ºC(μΩ@               |                | 0.76±0.05 | 1.09±0.0<br>5 | 1.18±0.0<br>5 | 1.12±0.05 | 1.00±0.05 | 1.04±0.05 |
| Elongatior                            | at rupture(%)  | ≥20       | ≥20           | ≥20           | ≥20       | ≥20       | ≥20       |
| Specific H                            | eat J/g.°C     |           | 0.44          | 0.461         | 0.494     | 0.5       | 0.5       |
| Thermal conductivity<br>KJ/m.h°C      |                |           | 60.3          | 45.2          | 45.2      | 43.8      | 43.8      |
| Coefficien<br>expansion<br>6/(20 1000 | a×10-          |           | 18            | 17            | 17        | 19        | 19        |
| Micrograp                             | hic structure  |           | Austenite     | Austenite     | Austenite | Austenite | Austenite |



