

Industrial Heating Equipment Cr20Ni30 NiCr Alloy Wire With High Temperature Stability

Basic Information

| Place of Origin: | China |
|--|--|
| Brand Name: | Victory |
| Certification: | CE,ROHS,ISO 9001 |
| Model Number: | Cr20Ni30 |
| Minimum Order Quantity: | 5 Kg |
| Price: | Negotiable |
| Packaging Details: | Plastic film or waterproof woven bag inside, wire packed in spool put into carton,coil wire or strip wire put into wooden case |
| Delivery Time: | 7 to 20 Days |
| Payment Terms: | L/C, T/T, Western Union, MoneyGram |
| Supply Ability: | 300 tons per month |
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Product Specification

Product Name:

Material:

- Nickel(Min):
- Resistivity:
- Tensile Strength:
- Elongtation:
- Condition:
- Surface:
- ounace.
- Application:
- Highlight:

| | NiCr Alloy Wire |
|---|---|
| | Nickel, Chromium |
| | 30% |
| | 1.08 ± 0.05 μΩ·m |
| : | 590 MPa |
| | ≥20% |
| | Hard / Soft |
| | Bright, Oxided, Acide |
| | Electric Furnace Heating Element, Industrial Oven, High-temperature Hot Air Fan |

Industrial Heating Equipment NiCr Alloy Wire, Cr20Ni30 NiCr Alloy Wire, High Temperature Stability NiCr Alloy Wire



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Product Description:

Cr20Ni30 nichrome alloy wire, as a high-performance heating material, is composed of nickel and chromium, with a nickel content of no less than 30%. Its stable resistivity is about 1.08 ± 0.05 $\mu \Omega$ · m, combined with excellent mechanical properties, including a tensile strength of 590 MPa and a elongation rate of no less than 20%, making it the preferred material for electric furnace heating elements, industrial ovens, and high-temperature hot air fans. It can be provided in hard or soft state, and surface treatment can be carried out as needed, such as bright, oxidized or acidic treatment, to meet various application needs.

In the field of industrial heating equipment, Cr20Ni30 heating resistance wire exhibits its outstanding characteristics. Not only can it quickly and uniformly convert electrical energy into thermal energy, providing reliable heating support for electric furnace heating elements, but it can also withstand the test of high-temperature environments, suitable for industrial ovens and high-temperature hot air fans and other equipment. Its reliable performance and diverse application scenarios make it an indispensable material in the field of industrial heating equipment.

Basic performance:

Composition: The alloy is composed of nickel (Ni) and chromium (Cr), with a chromium content of about 20% and a nickel content of about 80%.

Resistivity: Typically, at a specific temperature, the resistivity is approximately 1.08 \pm 0.05 μ $\Omega \cdot$ m.

Tensile strength: The typical tensile strength is about 590 MPa.

Elongation rate: A typical elongation rate of over 20% indicates that the material has a certain degree of ductility and can be stretched to a certain extent without fracture.

Technical Parameters:

| Performance material | Cr20Ni30 | |
|----------------------------------|---------------|-----------|
| | Ni | 30.0 34.0 |
| Composición | Cr | 18.0 21.0 |
| | Fe | Rest |
| Temperatura máxima°C | 1100 | |
| Punto de fusion °C | 1390 | |
| Densidad g/cm3 | 7.9 | |
| Resistividad μΩ⋅m,20°C | 1.04±0.05 | |
| Alargamiento a la ruptura | ≥20 | |
| Calor especifico J/g.°C | 0.5 | |
| Conductividad térmica KJ/m.h° | 43.8 | |
| Coeficiente de expansión de líne | 19 | |
| Estructura micrográfica | Austenite | |
| Propiedades magnéticas | 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 |

Main feature:

High temperature resistance: Cr20Ni30 alloy wire can work stably for a long time at temperatures up to 1200 ° C, suitable for various high-temperature heating applications.

Corrosion resistance: The addition of nickel improves the corrosion resistance of the alloy wire, enabling it to work in acidic, alkaline, and some gas environments.

Good plasticity: Cr20Ni30 alloy wire is easy to process, weld, and form, and can be customized for production according to different industrial needs.

High temperature stability: Adopting high-temperature vacuum heat treatment process to ensure that the alloy wire has excellent high-temperature stability and oxidation resistance.

Customized service: Provide personalized customization services, and develop different specifications and sizes of Cr20Ni30 electric heating alloy wires according to customer needs.

Application:

Heating element for heat treatment furnace: Cr20Ni30 alloy wire is often used as a heating element for industrial heat treatment furnaces. These furnaces are used for heat treatment processes such as quenching, tempering, and aging of metal parts. Cr20Ni30 alloy wire has good heat resistance and resistance characteristics, which can quickly and uniformly convert electrical energy into thermal energy, ensuring that metal parts reach the required heating temperature.

Industrial smelting equipment: In the process of metal smelting and smelting, Cr20Ni30 alloy wire is widely used in industrial smelting equipment, such as aluminum smelting furnaces, copper smelting furnaces, etc. It can withstand high temperature and heat environments, quickly converting electrical energy into thermal energy, thereby melting or heating metal materials to the desired temperature.

Heating element for chemical equipment: Cr20Ni30 alloy wire is also commonly used as a heating element for chemical equipment, such as chemical reaction kettles, heating tanks, etc. Its corrosion resistance and high temperature resistance enable it to operate stably in challenging chemical environments, providing necessary heating support for chemical reactions.

Industrial drying equipment: Cr20Ni30 alloy wire is also commonly used in industrial drying equipment, such as drying ovens, drying rooms, etc. Its excellent resistance characteristics and high temperature resistance can quickly convert electrical energy into thermal energy, providing an efficient and stable heating solution for the drying process in industrial production.

Q&A:

Q1: What are the main advantages of Cr20Ni30 nickel chromium alloy wire in industrial heating equipment? The main advantage of Cr20Ni30 nickel chromium alloy wire lies in its excellent high temperature resistance and corrosion resistance, which can maintain stability at extreme temperatures while having high electrical resistivity, achieving rapid heating, and is very suitable for the harsh working environment of industrial heating equipment.

Q2: What is the corrosion resistance of Cr20Ni30 alloy wire and in which industrial environments is it particularly useful? A2: Cr20Ni30 alloy wire has high corrosion resistance, which makes it particularly useful in corrosive environments such as chemical industry and petroleum processing, ensuring the long-term stable operation of heating elements.

Q3: Do industrial heating equipment using Cr20Ni30 nickel chromium alloy wire require special maintenance? A3: Due to the high stability and corrosion resistance of Cr20Ni30 alloy wire, industrial heating equipment using it usually does not require special maintenance. However, regular inspections and cleaning are still recommended practices to ensure the best performance and longest service life of the equipment.





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