



Bright Annealed Soft Nichrome Alloy Cr30Ni70 Tophet 30 Heating Resistance Flat Wire

Our Product Introduction

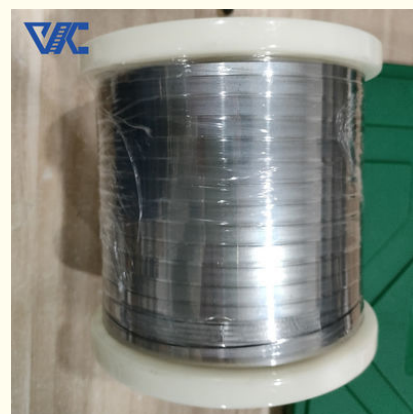
Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: ISO
- Model Number: Ni70Cr30
- Minimum Order Quantity: 3 KGS
- Price: 3 - 500 kgs \$32-\$38
- Packaging Details: Wooden Case
- Delivery Time: 21-36 working days
- Payment Terms: L/C, T/T, D/A
- Supply Ability: 10 Tons Per Month

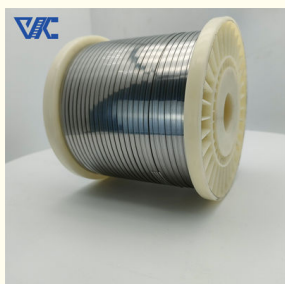


Product Specification

- Material: Nickel, Chromium
- Surface: Bright/Acid White/Oxidized
- Density: 8.10 G/cm3
- Resistivity: 1.18±0.05
- Elongation At Rupture: ≥20%
- Max Working Temperature: 1250°C
- Melting Point: 1380°C
- Thermal Conductivity KJ/m.h °C: 60.3
- Magnetic Properties: Nonmagnetic
- MOQ: 2-5KGS
- Lead Time: 15-35 Days After Order Confirm
- Highlight: Tophet 30 Nichrome Alloy,
Cr30Ni70 Nichrome Alloy,
Bright Annealed Soft Nichrome Alloy



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Product Description

Factory Price Bright Annealed Soft Nichrome Alloy Cr30Ni70 Tophet 30 Heating Resistance Flat Wire

Cr30Ni70 is a nickel-chromium-based alloy ribbon that is commonly used in various heating and sensing applications. The alloy composition consists of approximately 30% chromium and 70% nickel, with the remaining percentage being iron and other minor alloying elements.

The key properties of Cr30Ni70 ribbon include::

1. Extremely High Electrical Resistivity:

The alloy has an exceptionally high electrical resistivity, typically in the range of 1.10-1.20 ohm-mm²/m, making it suitable for use in high-resistance heating and sensing applications.

2. Excellent Oxidation Resistance:

The high chromium content provides outstanding oxidation resistance, allowing the ribbon to operate at extremely high temperatures without significant degradation.

3. Exceptional High-Temperature Strength:

The combination of chromium and nickel gives the alloy excellent high-temperature strength and creep resistance, enabling its use in applications with sustained exposure to extreme heat.

4. Excellent Corrosion Resistance:

The high nickel content contributes to the alloy's superior corrosion resistance, making it suitable for use in highly corrosive environments.

5. Good Ductility:

The nickel-rich composition of the alloy provides a good balance of ductility and strength, allowing the ribbon to be formed and shaped as needed.

Common applications of Cr20Ni80 flat wire include:

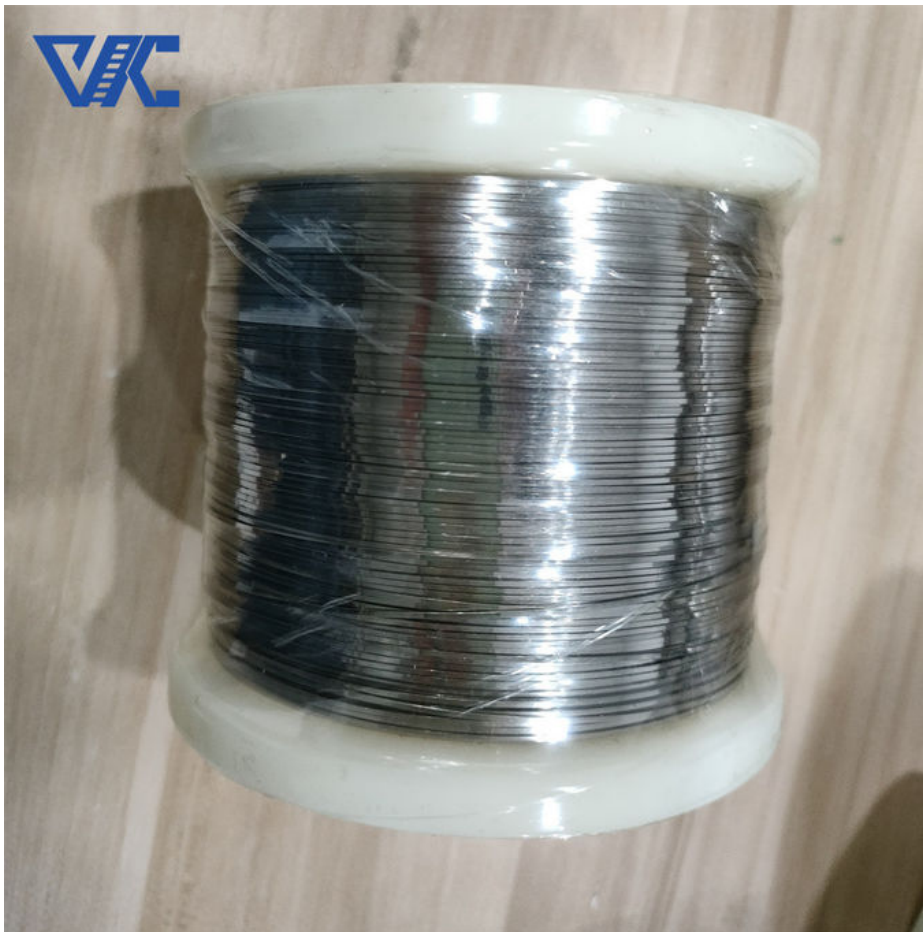
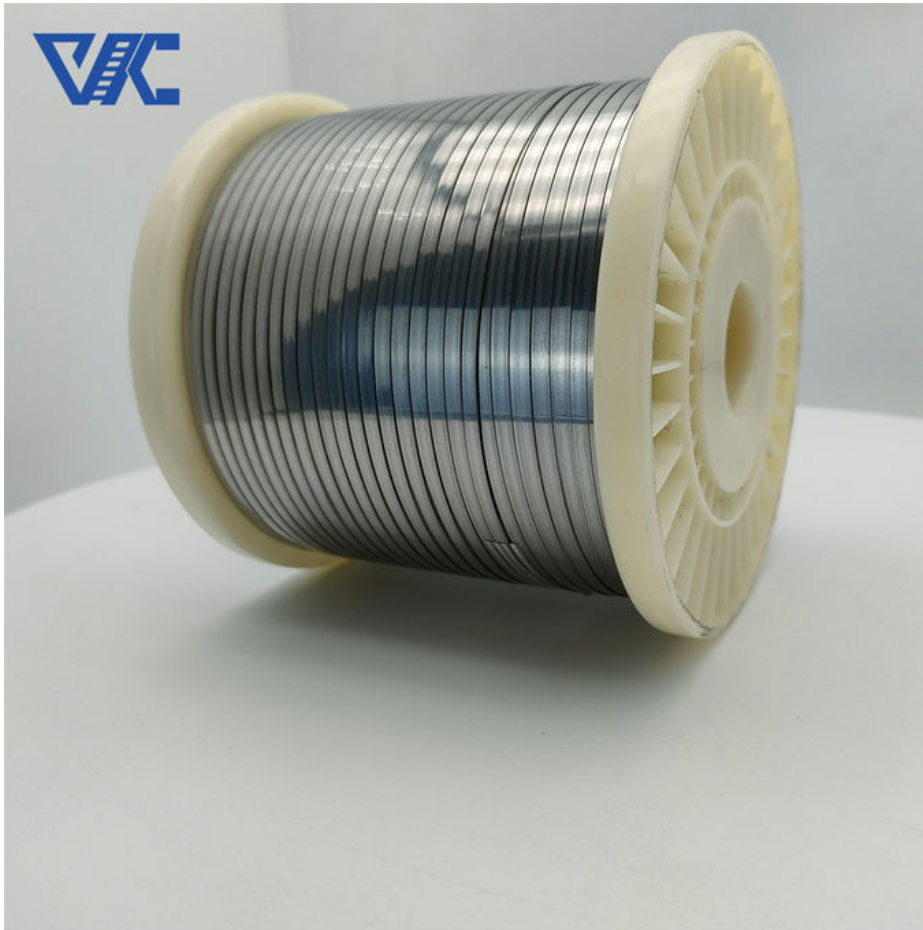
1. Heating elements for high-temperature furnaces, ovens, and kilns
2. Sensing elements for temperature measurement in critical high-temperature environments, such as in aerospace and industrial applications
3. Heating components in specialized industrial equipment and machinery
4. Resistor elements in high-power electronic circuits and devices
5. Catalytic converters in automotive exhaust systems exposed to extreme temperatures

Cr30Ni70 ribbon is typically produced by a continuous casting or strip casting process, which allows for the creation of thin, uniform ribbon material. The ribbon can then be further processed, such as by coiling, winding, or cutting, to meet specific application requirements.

When handling CR30Ni70 ribbon, it is essential to follow strict safety guidelines and wear appropriate personal protective equipment (PPE), such as high-temperature gloves, safety glasses, and protective clothing, to prevent potential injuries from sharp edges or exposure to high temperatures.

Performance material		Cr10Ni90	Cr20Ni80	Cr30Ni70	Cr15Ni60	Cr20Ni35	Cr20Ni30
Composition	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 20°C(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 α×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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