



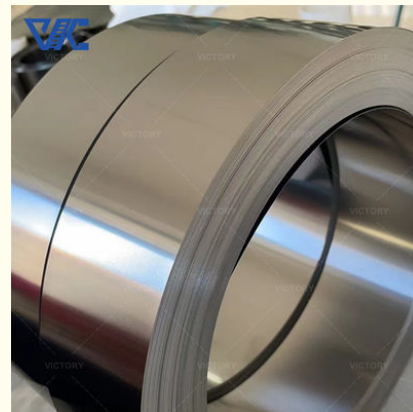
## High Corrosion Resistant Nichrome 70 Alloy Cr30Ni70 Flat Strip Tapes For Industry Furnace Heating

Our Product Introduction

for more products please visit us on [victory-alloy.com](http://victory-alloy.com)

### 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
- Melting Point: 1380
- Thermal Conductivity KJ/m.h : 60.3
- Magnetic Properties: Nonmagnetic
- MOQ: 2-5KGS
- Lead Time: 15-35 Days After Order Confirm
- Highlight: Industry Furnace Heating Nichrome 70 Alloy, Cr30Ni70 Nichrome 70 Alloy, High Corrosion Resistant Nichrome 70 Alloy



### More Images



## Product Description

### High Corrosion Resistant Nichrome 70 Alloy Cr30Ni70 Flat Strip Tapes For Industry Furnace Heating

The Cr30Ni70 Nichrome alloy strip is a specialized nickel-chromium-based resistance material that offers exceptional performance in high-temperature and high-resistance applications. Compared to other Nichrome alloy strips, the Cr30Ni70 composition sets it apart with its unique blend of properties.

#### Composition and Key Characteristics:

Chromium (Cr) content: Approximately 30%

Nickel (Ni) content: Approximately 70%

The remaining balance is primarily composed of iron (Fe) and minor alloying elements.

#### Unparalleled Electrical Resistivity:

The Cr30Ni70 Nichrome strip has the highest electrical resistivity among Nichrome alloys, typically ranging from 1.10 to 1.20 ohm-mm<sup>2</sup>/m.

This exceptionally high resistivity makes the Cr30Ni70 strip the preferred choice for applications that require extremely high-resistance heating or sensing elements, where a smaller cross-sectional area is needed to achieve the desired resistance.

#### Exceptional High-Temperature Strength and Oxidation Resistance:

The increased chromium content (30%) in the Cr30Ni70 alloy provides unmatched high-temperature strength and oxidation resistance compared to other Nichrome alloys.

This allows the Cr30Ni70 strip to operate reliably at temperatures exceeding 1300°C without significant degradation or failure due to oxidation.

The superior high-temperature performance makes the Cr30Ni70 strip ideal for use in the most demanding heating element applications, such as industrial furnaces, kilns, and specialized high-temperature equipment.

#### Superior Corrosion Resistance:

The high nickel content (70%) in the Cr30Ni70 alloy delivers excellent corrosion resistance, surpassing the performance of other Nichrome alloys.

This corrosion resistance is crucial in applications where the heating element may be exposed to harsh, corrosive environments, such as in chemical processing equipment or exhaust systems.

#### Ductility and Formability:

Despite its high chromium and nickel contents, the Cr30Ni70 Nichrome strip maintains a good balance of ductility and strength. This allows the strip to be readily formed, bent, or shaped into various heating element configurations, enabling versatile design and integration options.

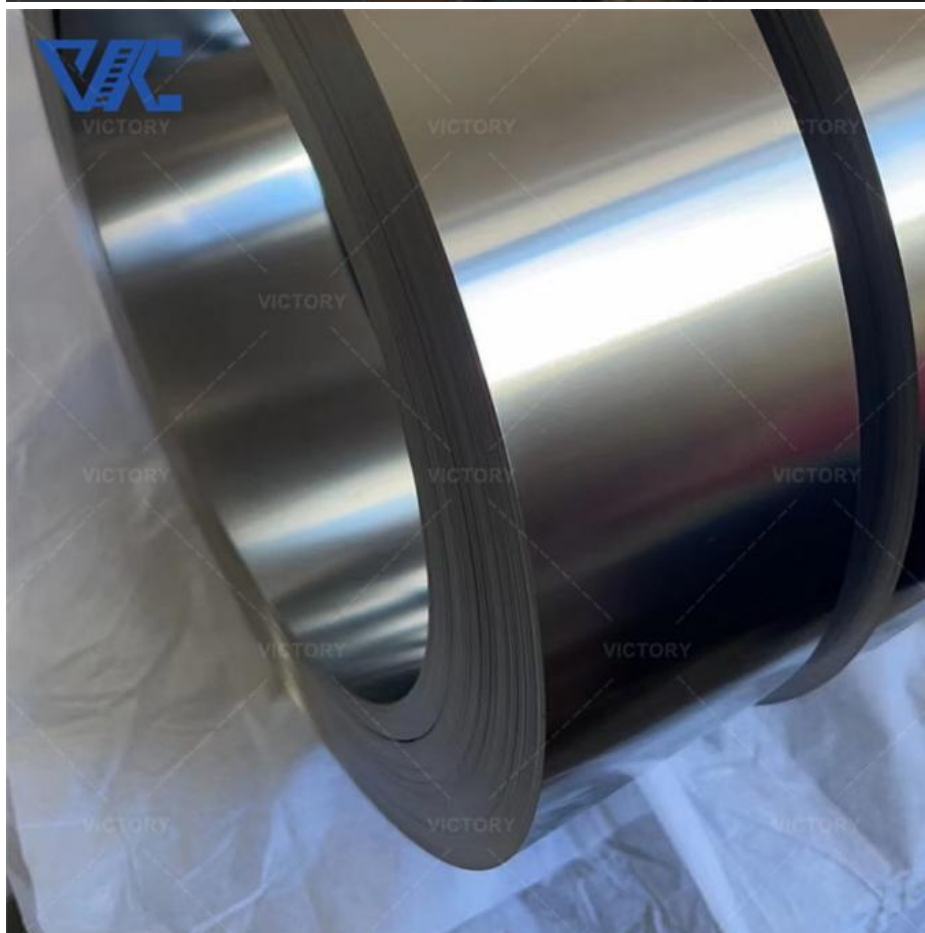
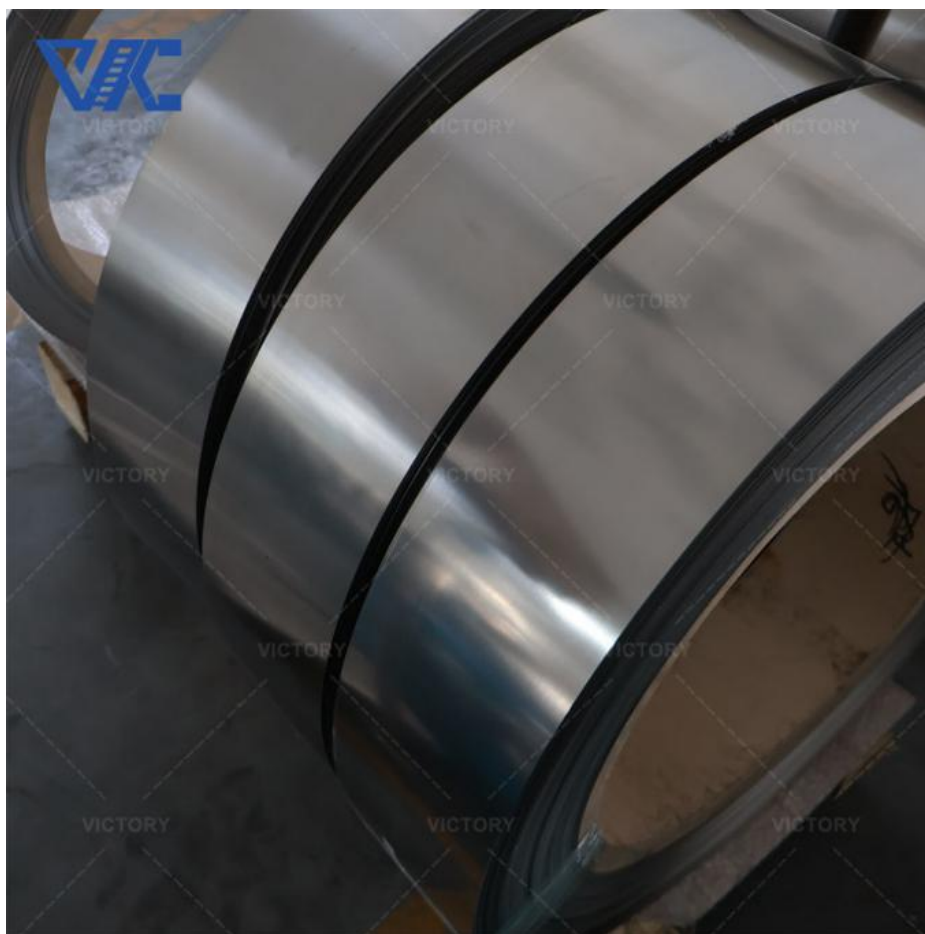
#### Applications:

1. The Cr30Ni70 Nichrome alloy strip is primarily used in the following high-performance applications:
2. Heating elements for industrial furnaces, kilns, and other high-temperature equipment
3. Sensing elements for temperature measurement in critical, high-temperature environments
4. Resistor components in specialized industrial and electronic systems
5. Catalytic converters in automotive exhaust systems exposed to extreme temperatures

In summary, the Cr30Ni70 Nichrome alloy strip stands out from other Nichrome alloy strips due to its unparalleled electrical resistivity, exceptional high-temperature strength and oxidation resistance, superior corrosion resistance, and good ductility. These unique properties make it the preferred choice for the most demanding high-temperature, high-resistance, and corrosive heating and sensing applications.

Performance material		Cr10Ni90	Cr20Ni80	Cr30Ni70	Cr15Ni60	Cr20Ni35	Cr20Ni30
Composic 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. temperature( °C )		1300	1200	1250	1150	1100	1100
Melting Point		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.			0.44	0.461	0.494	0.5	0.5
Thermal conductivity KJ/m.h			60.3	45.2	45.2	43.8	43.8

Coefficient of lines expansion $\alpha \times 10^{-6}/(20\ 1000)$		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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