



Water Treatment Equipment Copper Alloy N05500 Wire Monel K500 Wire With Good Wear Resistance

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: Monel K500
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Special packaging requirements can also be accommodated. OEM is also acceptable.
- Delivery Time: 5-21 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month

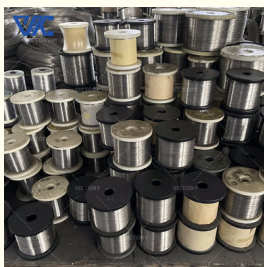


Product Specification

- Product Name: Monel K500 Wire
- Material: Nickel Base Alloy
- Nickel(Min): 63%
- Application: Water Treatment Equipment
- Melting Point: 1288-1343 °C
- Density: 8.05 G/cm³
- Thermal Conductivity: 17.2 Watts/meter-Kelvin
- Linear Expansion Coefficient: 13.9 X 10⁻⁶ Degrees
- Yield Strength: 790 MPa
- Tensile Strength: 1100 MPa
- Elongation (≥ %): 20%
- Sureface: Bright,Oxided
- Highlight: **Monel Nickel Alloy Wire,
Nickel Based Monel Wire,
Corrosion Resistant Monel Wire**



More Images



Product Description

Introduction:

Monel K500 wire is an alloy material widely used in the field of water treatment equipment manufacturing. As a nickel-copper alloy, Monel K500 wire has excellent performance and characteristics, so it has been widely used in the manufacture and application of water treatment equipment.

First, Monel K500 wire has excellent corrosion resistance. In water treatment equipment, we are often exposed to various corrosive media, such as acids, alkalis, chlorides, etc. Monel K500 wire can resist the erosion of these corrosive media and is not prone to corrosion, oxidation or sulfurization reactions, maintaining its stable performance and extending its service life. It has high corrosion resistance to seawater, chemical solutions, chlorine-containing water and other corrosive media, making it an ideal choice in the manufacture of water treatment equipment.

Secondly, Monel K500 wire has excellent mechanical properties. Water treatment equipment often needs to withstand working conditions of high pressure, high temperature and high speed flow. Monel K500 wire has high strength and excellent plasticity, and is able to withstand the stress and pressure under these working conditions while maintaining its stable performance, ensuring the reliability and safety of the equipment.

In addition, Monel K500 wire also has good wear resistance and corrosion resistance. During the water treatment process, equipment often faces wear and tear from particulate matter and erosion from corrosive substances. Monel K500 wire has high wear resistance and can resist wear by particulate matter, extending the service life of the equipment. At the same time, it has good corrosion resistance against corrosive substances in water, reducing corrosion damage of equipment and improving equipment reliability.

Parameter:

Chemical composition:

Nickel (Ni): about 63%
Copper (Cu): about 29.5%
Aluminum (Al): about 2.7%
Titanium (Ti): about 0.6%
Iron (Fe): about 2%
Manganese (Mn): about 1.5%
Silicon (Si): about 0.5%
Carbon (C): up to 0.25%

Physical properties:

Density: about 8.05g/cubic centimeter
Melting point: about 1288-1343 degrees Celsius
Thermal Conductivity: Approximately 17.2 Watts/meter-Kelvin
Linear expansion coefficient: approximately 13.9×10^{-6} degrees Celsius⁻¹ (room temperature to 100 degrees Celsius)

Mechanical behavior:

Yield Strength (Tensile Strength): Minimum approximately 790 MPa (80,000 psi)
Tensile Strength: Minimum approximately 1100 MPa (110,000 psi)
Elongation: minimum value is about 20%

Item	Ni	Cu	Al	Ti	Fe	Mn	S	C	Si
Monel K500	≥63	27-33	2.3-3.15	0.35-0.85	≤2	≤1.5	≤0.01	≤0.25	≤0.5

Item	Density	Melting point	Tensile Strength	Yield Strength	Elongation
Monel K500	8.05 g/cm ³	1288-1343°C	1100	790	20%

Monel K500	Bar/Rod	Forging	Pipe	Sheet/Strip	Welding Wire
Standard	ASTM B864	AMS4676	ASTM B865	ASTM B564	ErNiCu-7



Shape	Size(mm)
Wire	0.15-7.5
Rod/Bar	8.0-200
Strip	(0.5-2.5)*(5-180)
Plate	custom made

Advantage:

Monel K500 alloy wire is a high-strength, corrosion-resistant alloy material composed of elements such as nickel and copper. It is widely used in the field of water treatment equipment, mainly due to the following characteristics and advantages:

Corrosion resistance: Monel K500 alloy wire shows excellent corrosion resistance and can resist corrosive media in the water treatment process, such as acidic solutions, salt water and oxidants. This makes it of great use in the manufacture of critical components in water treatment equipment, providing long-term stable performance.

Stress corrosion resistance: Monel K500 alloy wire can maintain stable performance in stress corrosion environments. Water treatment equipment is often subject to stress and pressure, and Monel K500 alloy wire is able to withstand these stresses and maintain its corrosion resistance, extending the life of the equipment.

Seawater corrosion resistance: Monel K500 alloy wire exhibits excellent corrosion resistance in seawater environments and can resist corrosion in seawater and erosion under marine climate conditions. This makes it widely used in fields such as seawater desalination, seawater treatment and marine engineering.

High strength performance: Monel K500 alloy wire has excellent high strength performance and can withstand high pressure and mechanical loads in water treatment equipment. This makes it suitable for manufacturing key components such as pipes, valves, pump bodies and filters in water treatment equipment.

Application:

In the field of water treatment equipment, the specific applications of Monel K500 alloy wire include but are not limited to the following aspects:

Desalination equipment: used to manufacture corrosion-resistant components in seawater desalination equipment, such as evaporators, condensers and membrane reactors.

Sewage treatment equipment: used to manufacture corrosion-resistant components in sewage treatment equipment, such as sewage pumps, aerators and sedimentation tanks.

Drinking water treatment equipment: Used to manufacture corrosion-resistant components in drinking water treatment equipment, such as filters, sterilizers, and water storage tanks.

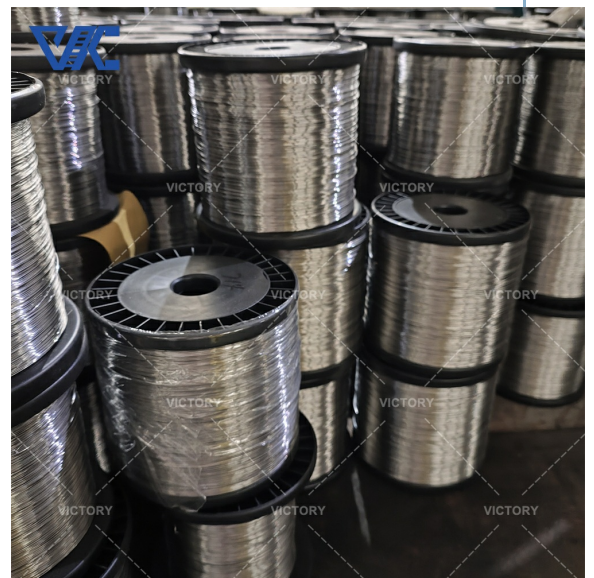
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Q&A:

Q: How is the quality of Monel K500 wire tested?

A: These tests evaluate the wire's tensile strength, hardness, corrosion resistance, and internal soundness to ensure it meets the required specifications and standards. The quality of Monel K500 wire is tested through various methods, including mechanical testing, corrosion testing, and non-destructive testing.

Q: What are the common non-destructive testing methods for Monel K500 wire?

A: These methods are used to detect any surface or internal defects, such as cracks or voids, ensuring the integrity and quality of the wire. Common non-destructive testing methods for Monel K500 wire include ultrasonic testing, magnetic particle inspection, and visual inspection.



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