Building Materials Monel K500 Wire Nickel Alloy Wire With Good Thermal Stability

Basic Information

Place of Origin: ChinaBrand 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: Building Materials
Melting Point: 1288-1343 °C
Density: 8.05 G/cm3

Thermal Conductivity: 17.2 Watts/meter-Kelvin
Linear Expansion 13.9 X 10^-6 Degrees

Coefficient:

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



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Introduction:

Monel K500 wire is an alloy material widely used in the field of construction and building materials. 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 building materials.

First, Monel K500 wire has excellent corrosion resistance. In the field of construction, building materials often need to face various harsh environmental conditions, such as acid rain, salt spray, chemical gases, 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 corrosive substances in the atmospheric environment, salt spray and chemical gases in the marine environment, making it an ideal choice for building materials.

Secondly, Monel K500 silk has excellent strength and durability. In the field of construction, building materials need to have sufficient strength and durability to withstand the load of the building structure and the impact of the external environment. Monel K500 wire has high strength and excellent plasticity, which can meet the strength requirements of building structures and maintain its stable performance during long-term use, ensuring the stability and safety of the building.

In addition, Monel K500 silk also has good thermal stability and decorative properties. In buildings, some special areas require materials that can maintain stable performance in high-temperature environments without softening, deformation or failure. At the same time, Monel K500 silk has a beautiful appearance and texture, which can give the building a unique decorative effect and enhance the visual appeal of the building.

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 x 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	С	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/cm3	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 construction and building materials, mainly due to the following characteristics and advantages: Corrosion resistance: Monel K500 alloy wire exhibits excellent corrosion resistance and can resist atmospheric corrosion, acid rain and other environmental corrosion factors. This makes it valuable for use in building structures and facades, etc., where it can provide long-term stable performance.

Wear resistance: Monel K500 alloy wire has good wear resistance and can resist wear and abrasion in the construction

environment. This makes it suitable for manufacturing construction materials that need to resist wear and tear, such as stair handrails, railings and door handles.

High temperature resistance: Monel K500 alloy wire can maintain stable performance in high temperature environments and is not easy to soften or lose strength. This makes it suitable for manufacturing building materials that require high temperature resistance, such as chimney ducts, hot air systems and gas pipes.

Good processability: Monel K500 alloy wire has good processability and can be used for bending, cutting, welding, forming and other processing operations. This makes it easier to process into various shapes and sizes during the construction and building materials manufacturing process to meet different building designs and needs.

Application:

In the field of construction and building materials, the specific applications of Monel K500 alloy wire include but are not limited to the following aspects:

Building structure: Used to manufacture corrosion-resistant and wear-resistant building structural materials, such as bridges, stairs, railings and roofs, etc.

Facades and decoration: Used to manufacture corrosion-resistant and wear-resistant facades and decorative materials, such as curtain walls, facade panels and sculptures.

Pipe system: used to manufacture corrosion-resistant and high-temperature-resistant pipe systems, such as water supply pipes, HVAC pipes, and gas pipes.

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Q & A:

Q: How is Monel K500 wire typically packaged for shipment?

A: Monel K500 wire is typically packaged in coils, spools, or reels, depending on the customer's requirements. It is carefully wrapped or secured to prevent tangling or damage during transportation. Protective measures such as plastic wrapping, wooden crates, or pallets may also be used to ensure the wire's integrity.

Q: What are the common shipping methods for Monel K500 wire?

A: Common shipping methods for Monel K500 wire include air freight, sea freight, and courier services. Air freight is often used for urgent or smaller shipments, while sea freight is suitable for larger quantities or bulk orders. Courier services offer fast and reliable delivery options. The choice of shipping method depends on factors such as delivery time, cost, and customer preferences.



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