# Cold Drawn High Strength NO5500 Nickel Coil Monel K500 Strip For High Temperature Applications

## **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: Spool package with Carton box, Coil

package with polybag

• 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 Strip Material: Nickle Alloy Material

Ni (Min): 63%
 Density: 8.44 G/cm³
 Melting Point: 1315-1350°C
 Thermal Conductivity: 17.2 W/(m·K)

Elongation (≥ %): 20%
Yield Strength: 345 MPa
Tensile Strength: 760 MPa
Hardness: HB 150-250

• Application: High Temperature Stove Parts, Heat

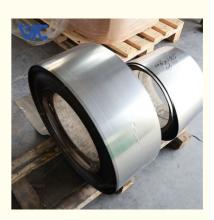
Exchangers

• Surface: Bright,Oxided

• Highlight: Cold Drawn Monel K500 Strip,

High Strength Monel K500 Strip,

NO5500 Nickel Coil



## More Images







## Introduction:

Monel K500 strip has a wide range of applications in high temperature applications. As a nickel alloy material, it has excellent performance characteristics. The material contains no less than 63% nickel, has a density of 8.44 g/cm³, and a melting point between 1315-1350°C. It has an elongation of 20% and a thermal conductivity of 17.2 W/(m·K).

Monel K500 tape exhibits excellent performance in high temperature environments. It has high yield strength (345 MPa) and tensile strength (760 MPa), as well as appropriate hardness (HB 150-250). This allows it to maintain strength and stability under high temperature conditions, making it suitable for high temperature applications.

Monel K500 strip has good corrosion resistance and can withstand corrosive media in high temperature environments, including oxides, acidic and alkaline media. Its surface treatment can be bright or oxidized, depending on specific needs.

#### 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%

#### **Chemical Properties of Monel K500**

Ni	Cu	Al	Ti	С	Mn	Fe	S	Si
63 Max	27-33	2.3-3.15	0.35-0.85	0.25 max	1.5 max	2.0 max	0.01 max	0.50 max

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

### Typical Room Temperature Tensile Properties of Annealed Material

Product Form	Condition	Tensile (ksi)	.2% Yield (ksi)	Elongation %	Hardness
Rod & Bar	Hot-Finished/Aged	140-190	100-150	30-20	27-38 HRC
Rod & Bar	Hot Finished/Annealed	90-110	40-60	45-25	75-90 HRB
Rod & Bar	Hot Finished/Annealed/Aged	130-165	85-120	35-20	24-35 HRC
Rod & Bar	Cold-Drawn/Aged	135-185	95-160	30-15	25-41 HRC
Rod & Bar	Cold-Drawn/Annealed/Aged	130-190	85-120	30-20	24-35 HRC
Plate	ot-Finished/Aged	140-180	100-135	30-20	27-37 HRC
Sheet	Cold-Rolled/Annealed	90-105	40-65	45-25	85 HRB Max

## **Advantage:**

High temperature stability: Monel K500 strip has good high temperature stability and can maintain its strength and corrosion resistance in high temperature environments.

Anti-oxidation properties: Monel K500 strip has excellent antioxidant properties and can resist oxidation and hot corrosion at high temperatures.

Low Coefficient of Thermal Expansion: Monel K500 strip has a low coefficient of thermal expansion, providing stable size and shape in high temperature applications.

## **Application:**

High-temperature furnace parts: Monel K500 strip can be used to manufacture key components of high-temperature furnaces, such as heating elements, furnace tubes and furnace structures, to provide high temperature resistance and corrosion

High temperature exhaust pipes: Monel K500 strip can be used in the manufacture of high temperature exhaust pipes, such as gas exhaust pipes, steam exhaust pipes, etc., to ensure stability and durability in high temperature and corrosive environments.

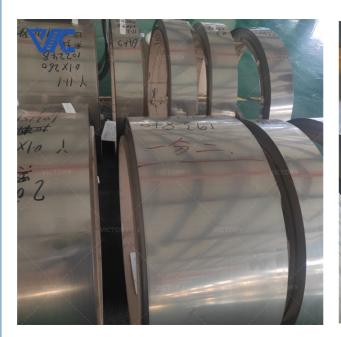
Heat exchangers: Monel K500 strip can be used to manufacture heat transfer tubes and tube bundles for heat exchangers to achieve efficient heat transfer and corrosion resistance under high temperature conditions.

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