



760 MPa NO5500 Nickel Coil Monel K500 Strip In Pump And Valve Manufacturing

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: 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: Pump And Valve Manufacturing
- Surface: Bright,Oxided
- Highlight: Nickel Coil Monel K500 Strip,
Pump Monel K500 Strip,
760 MPa Monel K500 Strip



More Images



Product Description

Introduction:

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 strip is mainly used in pump and valve manufacturing and has excellent mechanical properties. Its yield strength is 345 MPa, tensile strength is 760 MPa, and hardness is HB 150-250. This enables it to withstand the requirements of pumps and valves used in high-pressure and high-temperature environments, ensuring the reliability and durability of the equipment.

Monel K500 strip has good corrosion resistance and can resist the erosion of pumps and valves by various corrosive media, including acidic, alkaline and salty 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 13.9×10^{-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	C	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/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

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:

Corrosion resistance: Monel K500 strip has excellent corrosion resistance and can resist various corrosive media, including acids, alkalis, seawater and chemicals.

High strength and hardness: Monel K500 strip has high strength and hardness, able to withstand stress and impact loads in high pressure and high temperature environments.

Wear resistance: Monel K500 tape has good wear resistance and is able to resist damage to the material from particulate matter and abrasion.

Application:

Pump Manufacturing: Monel K500 strip can be used to manufacture key components of pumps such as impellers, bearings

and seals to provide corrosion resistance, high strength and anti-wear properties.

Valve manufacturing: Monel K500 strip can be used to manufacture valve actuating parts, such as valve cores, valve seats and valve stems, to ensure corrosion resistance and reliable sealing performance.

Marine applications: Monel K500 strips are widely used in pump and valve manufacturing in marine environments, such as seawater treatment equipment, offshore platforms and ship equipment.

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