Heat Resistant Supermalloy Rod ASTM B166 Nickel Alloy 600 Round Bar 75mm 80mm 90mm

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: ISO9001 ROHS
- Model Number: Inconel 600
- Minimum Order Quantity: 30 Kg
- Price: Negotiable
- Packaging Details: Inconel 600 rod packed in Spool Carton box, Coil package with polybag,then in woodencase
- Delivery Time: 20~40 Days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month

Product Specification

- Name: Heat-resistant Supermalloy Rod ASTM B166 Nickel Alloy 600 Round Bar
- Material: Nickel Chromium Iron
- Ni (Min): 72%
- Density: 8.47 G/cm3
- Melting Point: 1,370-1,425°C
- Elongation (≥ %): 30 %
- Thermal Conductivity: 15.9 W/m·K
- Finishing: Bright,Oxided
- Application: Construction, Industry Oil, Piping Systems
- Yield Strength: 240 MPa
- Tensile Strength: 550 MPa
- Hardness: ≤ 160 HB
- Standard: ASTM, ASME
- Size: 6~500mm

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Product Description

Inconel series include codes?

Inconel 600
Chemical composition: Ni 72%, Cr 14-17%, Fe 6-10%
Widely used in high-temperature corrosive environments such as chemical industry and power generation
Inconel 601

Chemical composition: Ni 60-63%, Cr 23-25%, Al 1.0-1.7%
Has excellent high temperature strength and corrosion resistance
Inconel 617
Chemical composition: Ni 44-46%, Cr 20-24%, Co 10-15%, Mo 8-10%
High temperature strength, still good strength above 1100°C
Inconel 625
Chemical composition: Ni 58%, Cr 20-23%, Mo 8-10%, Nb 3.15-4.15%
Excellent corrosion resistance and high temperature mechanical properties
Inconel 718
Chemical composition: Ni 50-55%, Cr 17-21%, Fe bal., Nb+Ta 4.75-5.5%
High temperature resistance and strength, widely used in aerospace engines, etc.
Inconel 725
Chemical composition: Ni 58%, Cr 20-23%, Mo 8-10%, Nb 3.15-4.15%
Similar to Inconel 625, but slightly less strong

Difference from Inconel 625 and Inconel 600?

Chemical composition:
Inconel 625 contains higher niobium (Nb) and molybdenum (Mo) contents, 3.15-4.15% and 8-10% respectively. Inconel 600, on the other hand, contains only very small amounts of Nb and Mo.
Inconel 625 contains a lower chromium (Cr) content of 20-23%, while Inconel 600 has 14-17%.
Performance features:
Inconel 625 has better corrosion resistance, especially in seawater, acidic and oxidizing environments.
Inconel 625 has higher strength and hardness and can maintain good strength at high temperatures.
Inconel 625 has better resistance to stress corrosion cracking.
Application areas:
Inconel 625 is widely used in marine, chemical, military and other applications requiring high corrosion resistance.
Inconel 600 is more used in conventional high-temperature environments, such as power plants, petrochemical equipment, etc.

what's the production process of inconel 600 round bar?

Smelting:
An electric arc furnace or induction furnace is used to smelt nickel, chromium, iron and other raw materials to produce Inconel 600 alloy melt.
Casting:
Inject the molten Inconel 600 alloy into a water-cooled metal mold for continuous casting or sand casting to obtain a rough casting.
forging:
The rough casting is heated to the plastic temperature and then forged or extruded to obtain a prefabricated billet.
Hot rolled:
The prefabricated billet is heated to a specified temperature and then rolled repeatedly through a hot rolling mill until a round steel bar of the required diameter is obtained.
annealing:
The rolled round steel bars are annealed to improve their plasticity and corrosion resistance.
Inspection and surface treatment:
The rolled and annealed Inconel 600 round steel bars were tested for size, chemical composition, mechanical properties, etc. Surfaces are polished, pickled or otherwise treated as required to meet the end product's usage requirements.

what's the main application of Inconel 600 round bar?

Chemical industry:
Used to manufacture various chemical reactors, storage tanks, pipelines and other equipment, with excellent corrosion resistance.
It is widely used in corrosive environments in petrochemical, pharmaceutical, pulp and other industries.
Power generation industry:
As parts and materials for steam turbines, generators and heat exchange equipment, such as turbine blades, bearings, seals, etc.
It has good strength and corrosion resistance in high temperature and high pressure environments.
Aerospace field:
Special components used in the manufacture of aircraft engine parts, missiles and spacecraft.
Materials are required to have excellent corrosion resistance, high temperature resistance and other properties.

Parameter:

Chemical Properties of Inconel 600

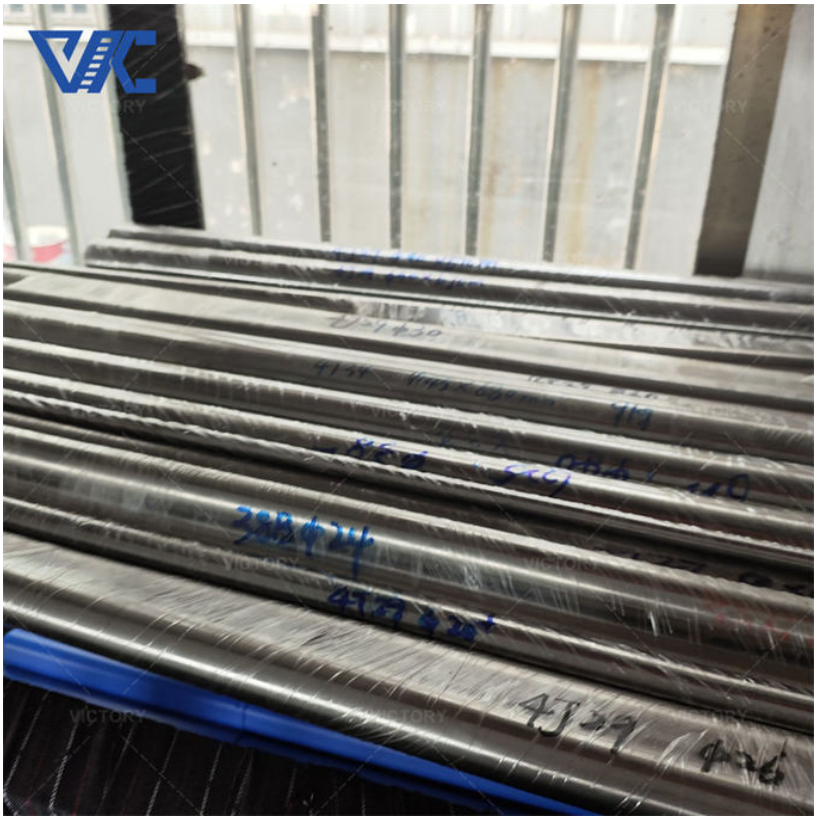
C	Cr	Ni+Co	Al	Ti	Fe	Nb+Ta	Mn	Si	P	S
≤0.15	14.0 17.0	≥72	≤0.35	≤0.50	6.0 10.0	≤1.0	≤1.0	≤0.5	≤0.04	≤0.015

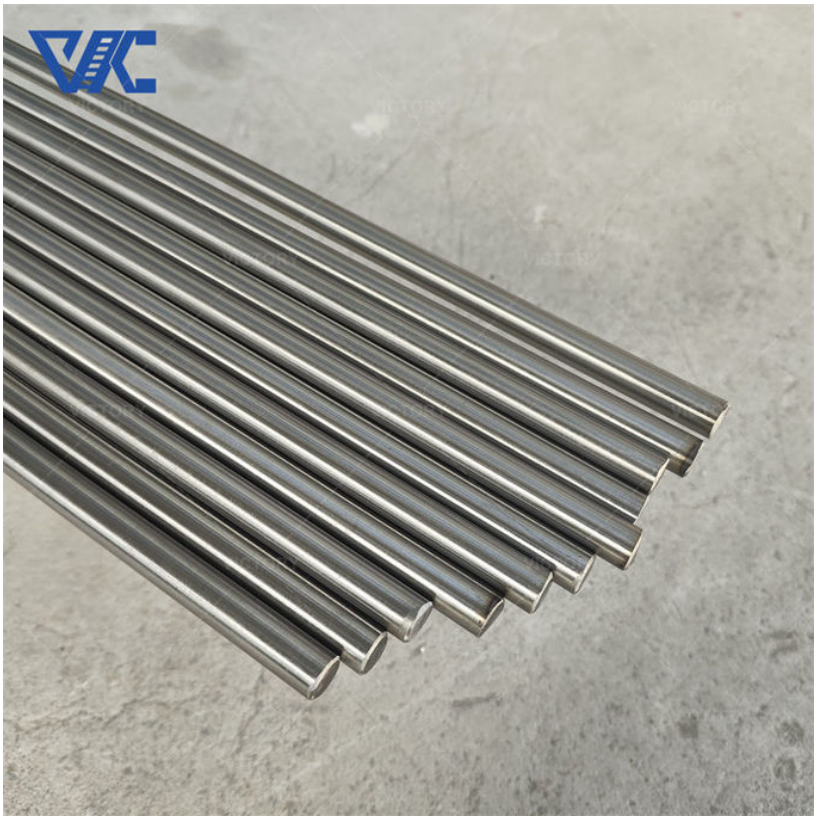
ITEM	θ/℃	TENSIE STRENGTH				HBS
		σb/MPa	σP0.2/MPa	δ5/%	φ/%	
BAR/ROD	20	≥585	≥240	≥30	-	134 217
RING	20	≥520	≥205	≥35	-	≥187
HOT ROLL PLATE	20	≥550	≥240	≥35	≥40	-
	900	≥95	≥45	≥40	≥50	-
COLD ROLLED SHEET	20	≥550	≥240	≥30	-	-
	900	≥90	≥40	≥60	-	-
COLD ROLLED SHEET	20	≥550	≥200	≥30	-	-
STRIP	20	≥550	≥240	≥30	-	-
WIRE	20				-	HV≤151

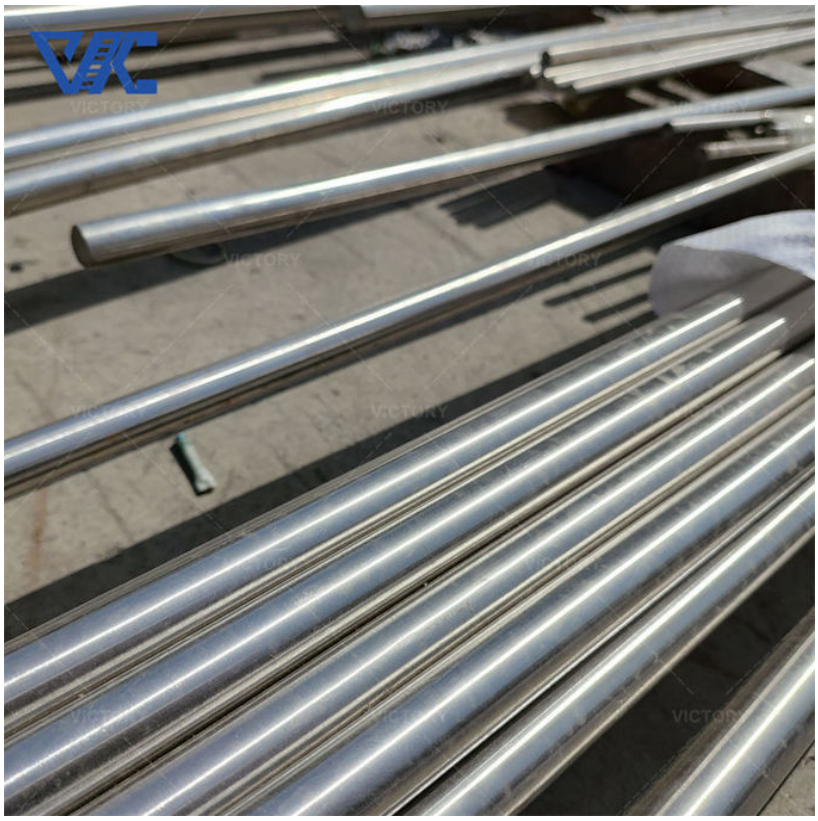
Shape	Size(mm)
WIre	0.5-7.5
Rod/Bar	8.0-200
Strip	(0.5-2.5)*(5-180)
Tube	custom made

Plate	custom made

contact us
email:victory@dlx-alloy.com
Oem service:
Welcome customized size
We are experience factory for OEM&ODM service







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