

# Chemical Industry Nickel Alloy Inconel 600 Bar With High Temperature Performance

# **Basic Information**

<ul> <li>Place of Origin:</li> </ul>	China	$\nabla$
<ul> <li>Brand Name:</li> </ul>	Victory	V
Certification:	ISO9001	
<ul> <li>Model Number:</li> </ul>	Inconel 600	
Minimum Order Quantity:	5 Kg	
• Price:	Negotiable	
Packaging Details:	Inconel 600 bar packed in Spool Carton box, Coil package with polybag,then in woodencase	
<ul> <li>Delivery Time:</li> </ul>	7-20 Days	
<ul> <li>Payment Terms:</li> </ul>	L/C, T/T, Western Union, MoneyGram	
<ul> <li>Supply Ability:</li> </ul>	300 tons per month	



115 1115

- ) | | - 4 1- / d.

BLX

之信科技有限公司

# **Product Specification**

# • Name: • M

Name:	Inconel 600 Bar
Material:	Nickel Chromium Iron
• Ni (Min):	72%
• Density:	8.47 G/cm3
Melting Point:	1,370-1,410°C
<ul> <li>Elongation (≥ %):</li> </ul>	30 %
Thermal Conductivity:	15.9 W/m·K
• Sureface:	Bright,Oxided
Application:	Chemical Reactors, Distillation Towers, Separators, Chemical Pipelines
• Yield Strength:	240 MPa
Tensile Strength:	550 MPa
• Hardness:	≤ 160 HB
Highlight:	corrosion resistant inconel alloy,



# More Images



high temperature resistant inconel alloy

## Introduction:

Inconel 600 Bar is a nickel-chromium-iron alloy known for its exceptional properties and is widely used in various industries. With a minimum nickel content of 72% and a density of 8.47 g/cm3, it exhibits excellent corrosion resistance and high temperature stability. The melting point of Inconel 600 Bar ranges from 1,370 to 1,410°C.

In terms of mechanical properties, it offers a yield strength of 240 MPa, a tensile strength of 550 MPa, and an elongation of at least 30%. The hardness, measured in terms of Brinell hardness, is  $\leq$  160 HB. Furthermore, it has a thermal conductivity of 15.9 W/m K, contributing to efficient heat transfer.

Inconel 600 Bar finds extensive applications in the chemical industry, including chemical reactors, distillation towers, separators, and chemical pipelines. Its corrosion resistance makes it suitable for handling a wide range of corrosive substances. The bright or oxidized surface finish enhances its aesthetic appeal and provides added protection.

In summary, Inconel 600 Bar is a versatile material renowned for its corrosion resistance, high temperature stability, and mechanical strength. It serves as a reliable choice for demanding applications in the chemical industry, ensuring the integrity and longevity of equipment such as reactors, towers, separators, and pipelines.

#### **Characteristic:**

High Temperature Performance: Inconel 600 rod has excellent high temperature stability and corrosion resistance, allowing it to maintain strength and structural stability in high temperature environments.

Corrosion resistance: The alloy shows good corrosion resistance to a variety of corrosive media, including acids, alkalis, oxidants and salt solutions. It can withstand the erosion of corrosive media in chemical processes.

Excellent mechanical properties: Inconel 600 rod has good mechanical properties, including high strength, good toughness and plasticity, and can meet the structural requirements in the chemical industry.

#### Advantage:

Corrosion Resistance: One of the main advantages of Inconel 600 rod in the chemical industry is its excellent corrosion resistance. It can withstand the erosion of acidic and alkaline media, including sulfuric acid, hydrochloric acid, hydrofluoric acid, etc., and is suitable for corrosive environments in chemical processes.

High-temperature stability: The alloy has good high-temperature stability and can maintain strength and structural stability under high-temperature conditions, making it suitable for applications in high-temperature chemical processes.

Oxidation resistance: Inconel 600 rod has good antioxidant properties and can withstand high-temperature oxidation environments, reducing the impact of oxidation on material properties.

#### Application:

Chemical Reactors: Inconel 600 rods can be used to manufacture reactors and reactor internal components in the chemical industry, such as reactor tanks, heat exchanger tube bundles, etc. Its corrosion resistance and high temperature stability can meet the requirements of chemical reaction processes.

Distillation equipment: Alloy rods can be used to manufacture distillation columns, separators and key components in distillation equipment such as evaporators and condensers. It is able to withstand high temperatures and corrosive media, ensuring the efficiency and reliability of the distillation process.

Chemical piping and valves: Inconel 600 rod can be used in piping and valve systems in the chemical industry, including pipes transporting corrosive media and valves that control the flow of media. Its corrosion resistance and high temperature stability ensure long-term reliable operation of pipes and valves.

#### Other relevant knowledge points:

Inconel 600 is a nickel-based alloy whose main alloying elements include nickel (Ni) and chromium (Cr), and also contains small amounts of iron (Fe) and other elements. These alloying elements give the alloy excellent corrosion resistance and high temperature stability.

Inconel 600 rods can be shaped and sized through hot and cold processing to meet the needs of different applications. Inconel 600 rods are also widely used in fields other than the chemical industry, including aerospace, electric power, petrochemical and other fields, and are used to manufacture high-temperature stoves, gas turbine engine components, nuclear energy equipment, etc.

#### Parameter:

## **Chemical Properties of Inconel 600**

Element	Percent
Nickel (plus Cobalt) (Min)	72
Chromium	14-17
Iron	6-10
Carbon (Max)	.15
Manganese (Max)	1
Sulfur (Max)	.015
Silicon (Max)	.5
Copper (Max)	.5

### Type we could offer

AMS Number	Alloy	Misc./Shape
AMS 5540	Inconel 600	
AMS 5540 Plate	Inconel 600	Plate
AMS 5540 Sheet	Inconel 600	Sheet
AMS 5540 Strip	Inconel 600	Strip

AMS Number	Alloy	Misc./Shape		
AMS 5580 Custom Tube	Inconel 600	Custom Tube		
AMS 5580 Tubing	Inconel 600	Tubing		
<u>AMS 5665</u> <u>Bar</u>	Inconel 600	Bar		
AMS 5665 Custom Tube	Inconel 600	Custom Tube		
AMS 5665 Ring	Inconel 600	Ring		
AMS 5961	Inconel 600	Wire		
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





## **Q&A:**

Q: What are the key advantages of Inconel 600 bar in terms of corrosion resistance? A: Inconel 600 bar exhibits excellent corrosion resistance to a wide range of corrosive environments including acids, alkalis, and high-temperature oxidation, making it suitable for applications in chemical processing and furnace components.

Q: Why is Inconel 600 bar preferred in high-temperature applications?

A: Inconel 600 bar offers high-temperature strength and exceptional thermal stability, allowing it to maintain its mechanical properties even at elevated temperatures, making it a preferred choice for applications such as heat exchangers and furnace components in industries such as aerospace and power generation.

