Aerospace Industry Astm B564 Inconel 601 Alloy Bar With Antioxidant

Our Product Introduction

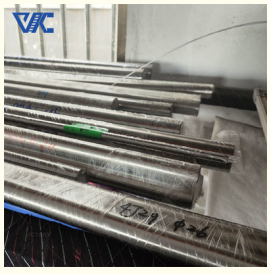
Basic Information

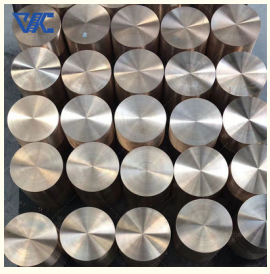
- Place of Origin: China
- Brand Name: Victory
- Certification: ISO9001
- Model Number: Inconel 601
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Inconel 601 bar packed in Spool Carton box, Coil package with polybag,then in woodencase
- Delivery Time: 7-20 Days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month

Product Specification

- Name: Inconel 601 Bar
- Material: Nickel Chromium Iron
- Ni (Min): 58%
- Density: 8.11 G/cm3
- Melting Point: 1,370°C
- Elongation (≥ %): 30 %
- Linear Expansion Coefficient: 13.2 X 10^-6/°C
- Powder Or Not: Not Powder
- Sureface: Bright,Oxided
- Application: Aeroengines, Combustors And Turbine Blades
- Yield Strength: 220 MPa
- Tensile Strength: 550 MPa
- Highlight: **corrosion resistant inconel alloy**, **high temperature resistant inconel alloy**

More Images





Product Description

Our Product Introduction

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Introduction:

Inconel 601 rod is a high temperature alloy material widely used in the aerospace industry. Composed of elements such as nickel, chromium and iron, the minimum content of nickel is 58%. Its density is 8.11 g/cm3, its melting point is as high as 1,370°C, it has an elongation of more than 30% and a linear expansion coefficient of 13.2 x 10^-6/°C.
In the aerospace industry, Inconel 601 rod exhibits excellent performance and is widely used in critical components and systems. Its high-temperature strength and corrosion resistance make it ideal for high-temperature components such as jet engines, turbine components and combustion chambers. Inconel 601 rods maintain structural integrity and provide outstanding durability under extreme heat and harsh environments.
In addition, the mechanical properties of Inconel 601 rods also provide important support to the aerospace industry. Its yield strength reaches 550 MPa and its tensile strength is 750 MPa, which can withstand the dynamic load and stress of aircraft and spacecraft during flight.
Overall, Inconel 601 rod plays a key role in the aerospace industry due to its high temperature strength, corrosion resistance and mechanical properties. Whether in jet engines, turbine components, combustors or other high-temperature components, Inconel 601 rods provide reliable solutions to ensure the safe operation of aircraft and spacecraft under extreme conditions. Its wide range of applications and excellent performance make it one of the indispensable materials in the aerospace industry.

Characteristic:

High temperature resistance: Inconel 601 rods have excellent high temperature resistance, can maintain structural stability and strength in high temperature environments, and have low creep and thermal fatigue tendencies.
Oxidation resistance: The alloy exhibits excellent oxidation resistance and can remain stable in high-temperature oxidizing environments and reduce the impact of oxidation on the material.
Corrosion resistance: Inconel 601 rod has good corrosion resistance and shows excellent resistance to many corrosive media, acidic solutions and oxidizing media.

Advantage:

High Temperature Stability: An important advantage of Inconel 601 rod in the aerospace industry is its high temperature stability. It is able to withstand extreme high temperature environments in aero engines and aircraft components, maintaining the material's strength and structural integrity.
Oxidation Resistance: Since the aerospace industry often faces high-temperature oxidizing environments, the excellent oxidation resistance of Inconel 601 rod makes it an ideal choice. It resists oxidation and corrosion at high temperatures, extending the service life of aircraft components.
Strength and plasticity: Inconel 601 rods can maintain high strength and good plasticity under high temperature conditions, which is crucial for the manufacturing of components requiring high strength and complex shapes in the aerospace industry.

Application:

Aero-engine components: Inconel 601 rods are widely used in high-temperature components in aero-engines, such as combustion chamber components, nozzles, combustors and turbine blades. Its high temperature stability and antioxidant properties allow it to withstand the high temperatures and corrosive environments found in engines.
Gas turbine generators: Inconel 601 rod stock is also used in high-temperature components in gas turbine generators, such as combustion chambers, burners and turbine blades. It is able to work under high temperature and high pressure conditions and has good anti-oxidation and corrosion resistance.
Aerospace structural parts: Inconel 601 bar can be used to manufacture aerospace structural parts, such as the thrust structure and nozzle of liquid rocket engines. Its high temperature stability and strength enable it to withstand the extreme conditions of spacecraft during launch and in the space environment.

Other relevant knowledge points:

Inconel 601 rods also have applications in areas outside the aerospace industry, such as the energy, chemical and nuclear industries.
In the aerospace field, material selection and design need to consider specific process conditions, temperature ranges, mechanical stresses and other requirements, so material performance testing and engineering evaluation are required in practical applications.
Inconel 601 bar stock can be used to make parts of different shapes and sizes and can be formed and processed through processes such as machining, forging and heat treatment.
In addition to Inconel 601 rods, there are other Inconel series alloys such as Inconel 625 and Inconel 718, which are also widely used in the aerospace industry with different properties and advantages.

Parameter:

Chemical Properties of Inconel 601

Nickel	Chromium	Iron	Aluminum	Carbon	Manganese	Sulfur	Silicon	Copper
58%-63%	21%-25%	Remainder	1%-1.7%	0.10% max	1% max	0.015% max	0.50% max	1% max

Type we could offer

AMS Number	Alloy	Type	UNS	Misc./Shape
AMS 5715	Inconel 601	Nickel	N06601	

AMS Number	Alloy	Type	UNS	Misc./Shape
AMS 5715 Bar	Inconel 601	Nickel	N06601	Bar
AMS 5715 Custom Tube	Inconel 601	Nickel	N06601	Custom Tube
AMS 5715 Forging	Inconel 601	Nickel	N06601	Forging
AMS 5715 Ring	Inconel 601	Nickel	N06601	Ring
AMS 5870	Inconel 601	Nickel	N06601	
AMS 5870 Plate	Inconel 601	Nickel	N06601	Plate
AMS 5870 Sheet	Inconel 601	Nickel	N06601	Sheet
AMS 5870 Strip	Inconel 601	Nickel	N06601	Strip

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email:victory@dlx-alloy.com
Oem service:
Welcome customized size
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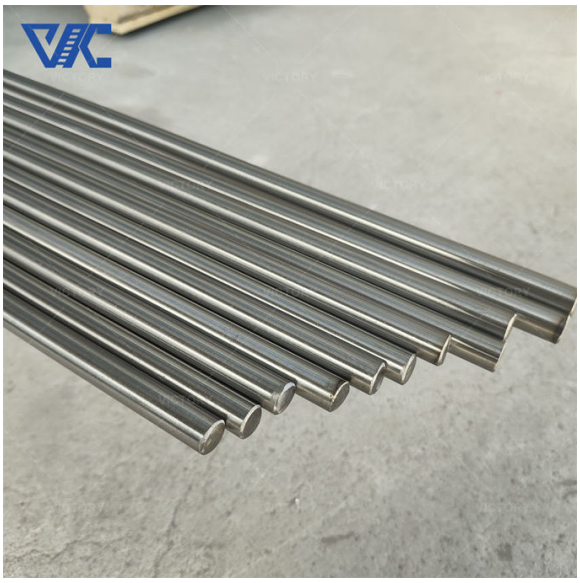

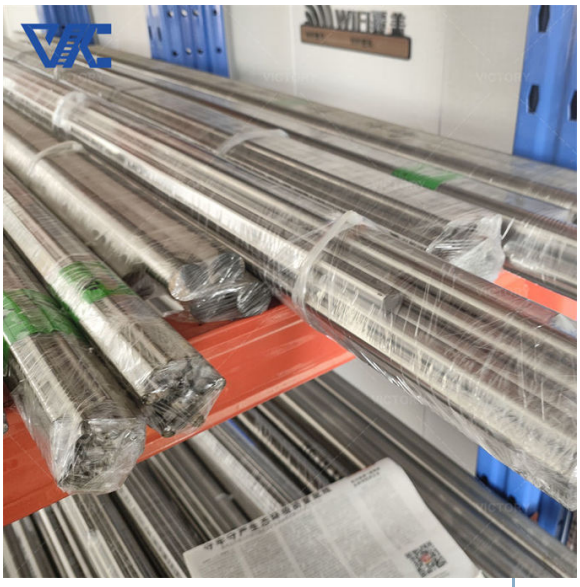

Q & A:

Q1: How do you ensure the quality of Inconel 601 bars?
A1: We maintain high-quality standards by adhering to ASTM B564 specifications, conducting rigorous material testing, and implementing dimensional inspections.

Q2: Can you provide certifications to validate the quality of your Inconel 601bars?
A2: Yes, we provide certifications, including certificates of compliance and material test reports, to validate the quality and traceability of our Inconel 601 bars.

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