



Energy Field Nickel Alloy Rods Inconel 617 Bar With High Temperature Resistance

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: ISO9001
- Model Number: Inconel 617
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Inconel 617 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

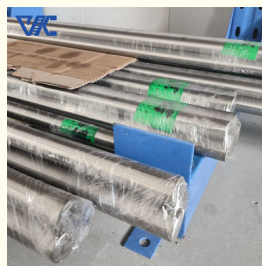
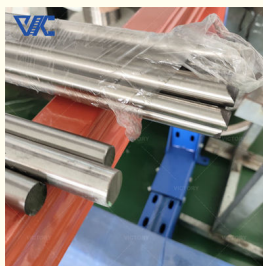
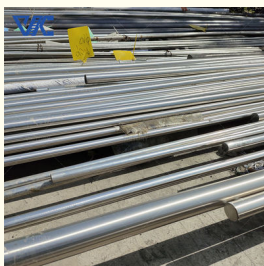


Product Specification

- Product Name: Inconel 617 Bar
- Material: Ni Cr Fe
- Ni (Min): 44.5%
- Application: Construction, IndustryFurnace Tube, Burner, Furnace
- Elongation (\geq %): 30 %
- Density: 8.36 G/cm³
- Melting Point: 1350 °C
- Tensile Strength: 690 MPa
- Sureface: Bright,Oxided
- Yield Strength: 310 MPa
- Thermal Expansion Coefficient: 12.7 X 10⁻⁶/°C
- Thermal Conductivity: 10.8 W/m · K
- Highlight: Inconel 617 Nickel Alloy Rods, Inconel 617 Bar



More Images



Product Description

Introduction:

Inconel 617 rod is a high temperature alloy material widely used in the energy field. Made of elements such as nickel, chromium and molybdenum, it has excellent resistance to high temperatures and corrosion. Key features of Inconel 617 rod include high density (8.42 grams per cubic centimeter) and high melting point (approximately 1,370°C). In addition, it has a low coefficient of linear expansion ($10.2 \times 10^{-6}/^{\circ}\text{C}$) and good mechanical properties.

In the energy sector, Inconel 617 rods are widely used in critical components and systems, especially in high temperatures and corrosive environments. Its applications are important in fields such as oil and gas extraction, refining and chemicals. The material performs well in high-temperature furnace tubes, reactors and catalyst systems, able to withstand stresses and loads under extreme temperature and pressure conditions.

Inconel 617 rod has excellent mechanical properties, with high yield strength (approximately 620 MPa) and tensile strength (approximately 950 MPa). This allows it to withstand high loads and stresses in energy equipment, maintaining structural integrity and stability.

Overall, Inconel 617 rod plays an important role in the energy field with its excellent high-temperature strength, corrosion resistance and mechanical properties. It provides reliable solutions in high-temperature equipment and systems in the oil, gas and chemical industries, ensuring efficient operation of energy production. The wide range of applications and excellent properties of Inconel 617 rods make it one of the indispensable materials in the energy sector.

Characteristic:

High temperature resistance: Inconel 617 rod has excellent high temperature resistance, can maintain structural stability and strength in extreme high temperature environments, and has 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 617 rod has good corrosion resistance and shows excellent resistance to a variety of corrosive media, acidic solutions and oxidizing media.

Advantage:

High temperature stability: An important advantage of Inconel 617 rod in the energy sector is its high temperature stability. It maintains strength and structural integrity in high-temperature environments and is suitable for high-temperature equipment and components in oil and gas extraction, refining and chemical industries.

Oxidation Resistance: Since many applications in the energy sector involve high temperature oxidizing environments, the excellent oxidation resistance of Inconel 617 rod makes it an ideal choice. It resists oxidation and corrosion at high temperatures, extending the life of equipment and components.

Strength and plasticity: Inconel 617 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 energy field.

Application:

Refining and chemical equipment: Inconel 617 rods are widely used in high-temperature components in refining and chemical equipment, such as furnace tubes, reactors, heat exchangers and catalyst supports. Its high temperature stability and corrosion resistance enable it to withstand high temperatures and corrosive media.

Oil and Gas Extraction: Inconel 617 rod is also used in high-temperature equipment and components in the oil and gas extraction field, such as wellheads, well casing and drilling tools. It can withstand high temperatures and corrosive environments, maintaining equipment reliability and durability.

Thermal and Nuclear Power Equipment: Inconel 617 rods are also used in thermal and nuclear power equipment, such as burners, furnaces and nuclear reactor components. Its high temperature stability and anti-oxidation properties enable it to work in high temperature and radiation environments, ensuring the safety and reliability of equipment.

Other relevant knowledge points:

Inconel 617 rods are also used in aerospace, automotive industry and gas turbine power generation.

In actual applications, it is necessary to select appropriate materials according to specific process conditions and requirements, and conduct performance testing and engineering evaluation.

Inconel 617 bar can be formed and processed through processes such as machining, forging and heat treatment to meet the needs of different applications.

In addition to Inconel 617 rods, there are other Inconel series alloys such as Inconel 625 and Inconel 718, which are also widely used in the energy field and have different properties and advantages.

Parameter:

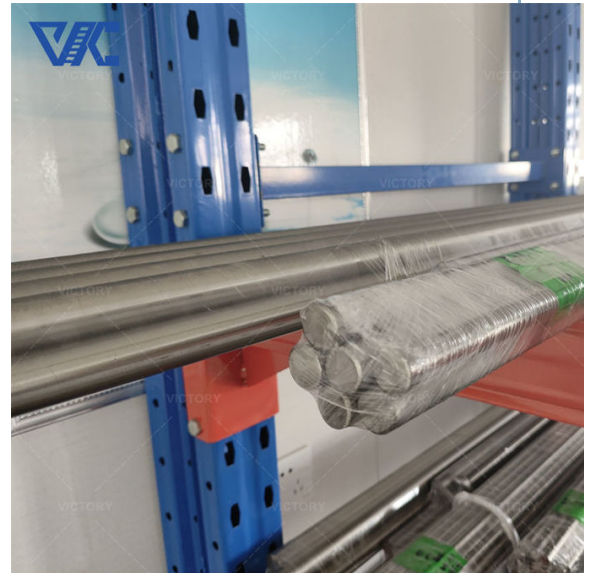
Item	C	Mn	Fe	P	S	Si	Cu	Ni	Co	Al	Ti	Cr	Nb+Ta	Mo	B
Inconel 617	0.05-0.15	≤0.5	≤3	≤0.015	≤0.015	≤0.5	--	≥44.5	10-15	0.8-1.5	≤0.6	20-24	--	8-10	≤0.006

AMS Number	Alloy	Type	UNS	Cross Ref. Spec	Misc./Shape
AMS 5887	Inconel 617	Nickel	N06617		
AMS 5887 Bar	Inconel 617	Nickel	N06617	-	Bar
AMS 5887 Custom Tube	Inconel 617	Nickel	N06617	-	Custom Tube
AMS 5887 Forging	Inconel 617	Nickel	N06617	-	Forging
AMS 5887 Ring	Inconel 617	Nickel	N06617	-	Ring
AMS 5888	Inconel 617	Nickel	N06617	-	Plate
AMS 5889	Inconel 617	Nickel	N06617		
AMS 5889 Sheet	Inconel 617	Nickel	N06617	-	Sheet
AMS 5889 Strip	Inconel 617	Nickel	N06617	-	Strip



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 using Inconel 617 bar in high-temperature applications?

A: Inconel 617 bar offers excellent high-temperature strength, exceptional resistance to oxidation and sulfidation, making it a reliable choice for demanding applications in gas turbines, petrochemical industries, and refining equipment.

Q: Can Inconel 617 bar withstand corrosive environments?

A: Yes, Inconel 617 bar exhibits excellent corrosion resistance, making it suitable for use in corrosive environments encountered in chemical processing, petroleum refining, and nuclear industries.



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