Aerospace Industry Astm B444 Nickel Alloy Nconel X750 Bar With High Temperature Performance

Our Product Introduction

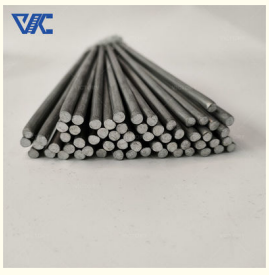
Basic Information

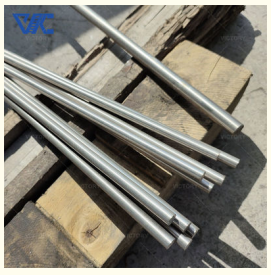
- Place of Origin: China
- Brand Name: Victory
- Certification: ISO9001
- Model Number: Inconel X750
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Inconel X750 bar packed in Spool Carton box, Coil package with polybag,then in woodencase
- Delivery Time: 7-20 Days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month

Product Specification

- Name: Inconel X750 Bar
- Material: Ni Cr Fe
- Ni (Min): 70-75%
- Density: 8.28g/cm3
- Application: Construction, IndustryTurbine Discs, Connections, Various Components
- Sureface: Bright,Oxided
- Melting Point: 1393-1427°C
- Tensile Strength: 1034 MPa
- Yield Strength: 827 MPa
- Thermal Expansion Coefficient: 12.6 μm/m·°C
- Highlight: **corrosion resistant inconel alloy**, **high temperature resistant inconel alloy**

More Images





Product Description

Our Product Introduction

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Introduction:

Inconel X750 rod is a commonly used high temperature alloy material in the aerospace industry. It is a nickel-based alloy with excellent high-temperature strength, corrosion resistance and oxidation resistance, making it suitable for high temperatures and extreme environments found in aerospace.
In the aerospace industry, Inconel X750 rods are widely used in key components of aerospace engines and aerospace propulsion systems. It is commonly used in the manufacture of high-temperature components such as turbine blades, combustion chambers, nozzles, burners and exhaust systems. Due to its excellent high-temperature strength and oxidation resistance, Inconel X750 rod is able to withstand the requirements of high temperature, high pressure and corrosive media in aerospace engines and aerospace propulsion systems.
Overall, Inconel X750 rod plays an important role in the aerospace industry due to its excellent high-temperature strength, corrosion resistance and oxidation resistance. It is widely used in key components such as aerospace engines, aerospace propulsion systems, structural parts and thermal protection systems to ensure the high-temperature performance, reliability and safety of aerospace vehicles. The wide range of applications and excellent performance of Inconel X750 rods make it one of the indispensable materials in the aerospace industry.

Characteristic:

High Temperature Strength: Inconel X750 rod has excellent high temperature strength, maintaining its structural integrity and mechanical properties in high temperature environments.
Corrosion resistance: The alloy has good corrosion resistance and can resist oxidation, corrosion and erosion from high-temperature gas environments.
Fatigue resistance: Inconel X750 rods have good fatigue resistance and can be used for a long time under cyclic stress without being prone to fatigue damage.
Good processability: The alloy can be hot and cold processed, making it easy to manufacture parts of various complex shapes.

Advantage:

High-temperature performance: Inconel X750 rod maintains its strength and stability in high-temperature environments and is suitable for the manufacture of high-temperature components such as aerospace engines, jet propellers, and gas turbines.
Corrosion resistance: The alloy has excellent corrosion resistance and can resist the erosion of high-temperature gases, chemicals and oxidizing environments in spacecraft and their engines.
Fatigue resistance: The fatigue resistance of Inconel X750 bar makes it suitable for parts in the aerospace industry that need to withstand cyclic stress, such as springs, connectors and blades.
Reliability: The alloy has good mechanical properties and stability, providing the high reliability and safety required by the aerospace industry.

Application:

Engine components: Inconel X750 rods can be used to manufacture various key components of aerospace engines, such as turbine disks, blades, nozzles, combustion chamber components, etc. Its high temperature strength and corrosion resistance make it an ideal material for engine construction.
Structural components: The alloy is also widely used in the manufacturing of aerospace structural components, such as connectors, springs, supports, etc. Its fatigue resistance and workability make it play an important role in complex structures.
Spacecraft components: Inconel X750 rods can be used to manufacture various components of spacecraft, such as propulsion systems, navigation systems, and thermal control systems.

Other relevant knowledge points:

Inconel X750 is a nickel-based high-temperature alloy containing alloying elements such as chromium, iron, aluminum and titanium. It has good high temperature strength, corrosion resistance and fatigue resistance.
The aerospace industry has strict requirements on high-temperature performance, corrosion resistance and mechanical properties of materials. Proper material selection can improve aerospace vehicle performance, reliability and safety.
Material selection in the aerospace industry requires consideration of many factors, such as temperature, pressure, chemical environment, etc. Inconel X750 rod is widely used in the aerospace industry due to its special properties and advantages.

Physical property:

Main ingredients: Nickel (Ni), Chromium (Cr), Titanium (Ti)
Chemical composition: Nickel (70-75%), Chromium (14-17%), Titanium (2.25-2.75%), Iron (5-9%), Aluminum (0.7-1.2%)
Density: 8.28 g/cm³
Melting point: 1393-1427°C
Tensile strength: about 1034 MPa
Yield strength: about 827 MPa
Thermal expansion coefficient: 12.6 μm/m·°C (20-100°C)

Parameter:

Item	C	Mn	Fe	P	S	Si	Cu	Ni	Co	Al	Ti	Cr	Nb+Ta	Mo	B
Inconel X750	≤0.08	≤1	5-9	--	≤0.01	≤0.5	≤0.5	≥70	≤1	0.4-1	2.25-2.75	14-17	0.7-1.2	--	--

AMS Number	Alloy	Type	UNS	Cross Ref. Spec	Misc./Shape
AMS 5699 wire	Inconel X750	Nickel	N07750	Wire	
AMS 5542 Custom Tube	Inconel X750	Nickel	N07750	-	Custom Tube
AMS 5542 Plate	Inconel X750	Nickel	N07750	-	Plate
AMS 5542 Sheet	Inconel X750	Nickel	N07750	-	Sheet
AMS 5542 Strip	Inconel X750	Nickel	N07750	-	Strip

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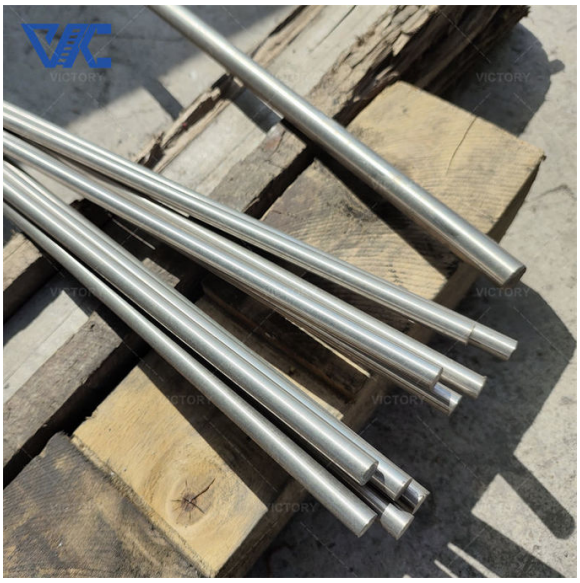
email:victory@dlx-alloy.com
Oem service:
Welcome customized size
We are experience factory for OEM&ODM service



Q & A:

Q1: What types of non-destructive testing methods are commonly used to inspect Inconel X750 bars for quality assurance?
A1: Common non-destructive testing methods used for inspecting Inconel X750 bars include ultrasonic testing (UT) and magnetic particle inspection (MPI). These methods allow for the detection of flaws, such as cracks or inclusions, ensuring the integrity and quality of the bars.

Q2: Is material testing performed on Inconel X750 bars to verify their mechanical properties?
A2: Yes, material testing is performed on Inconel X750 bars to verify their mechanical properties. This includes tests such as tensile testing, hardness testing, and impact testing, which provide crucial information about the strength, ductility, and toughness of the bars to ensure they meet the required specifications and standards.

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