Aerospace Inconel 617 Alloy Wire High Temperature Resistance

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: Inconel 617
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Inconel 600/601/718 wire packed in Spool Carton box, Coil package with polybag,then in woodencase
- Delivery Time: 5-21 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month

Product Specification

- Product Name: Inconel 617 Wire
- Material: Ni Cr Fe
- Nickel(Min): 44.5%
- Application: Aerospace
- Elongation (≥ %): 30%
- Density: 8.36 G/cm3
- Melting Point: 1350 °C
- Tensile Strength: 690 MPa
- Yield Strength: 310 MPa
- Thermal Expansion Coefficient: 12.7 X 10 ^ -6/°C
- Thermal Conductivity: 10.8 W/m · K
- Sureface: Bright,Oxided
- Highlight: **Inconel 617 Alloy Wire, Aerospace Inconel 617 Alloy, Aerospace Inconel 617 Alloy Wire**

More Images

Product Description

Our Product Introduction

for more products please visit us on victory-alloy.com

Introduction:

Inconel 617 alloy wire is a high-temperature alloy material widely used in the aerospace industry. The alloy has excellent thermal stability and oxidation resistance, and can maintain good mechanical properties and corrosion resistance in extreme high temperature environments. It is composed of nickel, chromium, molybdenum and other elements, and has high strength, high toughness and excellent heat resistance.

Inconel 617 alloy wire is widely used in the aerospace field. It is commonly used to manufacture key components such as high-temperature blades, combustor components and nozzles in gas turbine engines. Due to its excellent antioxidant properties, it can effectively prevent oxidative corrosion in high-temperature gases and liquids, allowing the engine to operate stably under extreme working conditions.

In addition, Inconel 617 alloy wire can also be used to manufacture components such as combustion chamber walls, combustion chamber liners and nozzles of aero engines. These components need to withstand high temperatures and corrosive gases, and the corrosion resistance of Inconel 617 alloy wire can effectively extend their service life and improve system reliability.

Parameter:

Chemical composition: The main components of Inconel 617 alloy wire are nickel (Ni), chromium (Cr), molybdenum (Mo) and aluminum (Al), of which the nickel content is approximately 44.5%.
Density: The density of Inconel 617 alloy wire is approximately 8.36 g/cm3.
Melting point: The melting point of Inconel 617 alloy wire is approximately 1,350°C.
Tensile strength (room temperature): approximately 690 MPa (100,000 psi).
Yield strength (room temperature): approximately 310 MPa (45,000 psi).
Thermal expansion coefficient: approximately 12.7 x 10^-6/°C (in the range of 20-1000°C).
Thermal conductivity: approximately 10.8 W/m·K (100°C).
Special application temperature range: Inconel 617 alloy wire usually shows good performance in high temperature environments of 800-1,200°C.

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

Size Range (mm)	
Wire	0.5-7.5
Rod/Bar	8.0-200
Strip	(0.50-2.5)*(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

Feature:

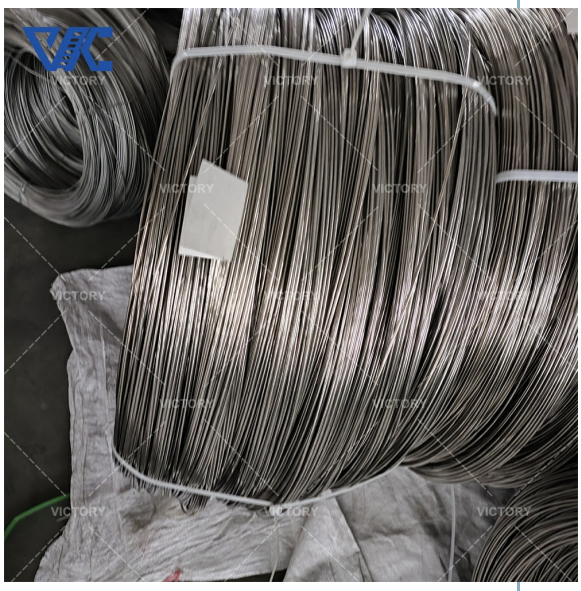
High temperature stability: Inconel 617 alloy has excellent high temperature stability and can maintain its mechanical properties and chemical stability for a long time in extreme working environments.
Anti-oxidation properties: The alloy has excellent anti-oxidation properties and can resist oxidation, corrosion and hot corrosion at high temperatures, so it can maintain good performance in high-oxygen environments.
High strength: Inconel 617 alloy has high strength and can maintain its mechanical properties even under high temperature conditions, making it suitable for aerospace applications requiring high strength.
Good workability: The alloy has good workability and can be formed and processed through various processing methods (such as forging, heat treatment, welding, etc.).

Advantage:

High-temperature applications: Inconel 617 alloy can maintain its properties in high-temperature environments, so it plays an important role in high-temperature applications in the aerospace field, such as jet engines, gas turbines, etc.
Anti-oxidation and corrosion resistance: The alloy has excellent anti-oxidation and corrosion resistance, enabling long-term use in harsh working environments and extending the service life of equipment.
High Strength and Reliability: The high strength and reliability of Inconel 617 alloy make it ideal for critical components in the aerospace industry that require high reliability and durability.
Processability and weldability: The alloy has good processability and weldability, making it easy to manufacture parts and components of various shapes and sizes.

Specific applications:

Gas turbine engines: Inconel 617 alloy wire can be used to manufacture key components such as high-temperature blades, combustor components and nozzles in gas turbine engines.
Aero-engine combustion chamber: This alloy wire is suitable for manufacturing aero-engine combustion chamber wall panels, combustion chamber linings, nozzles and other components, and can withstand high temperatures and corrosive gases.
Aerospace components: Inconel 617 alloy wire can be used to manufacture high-temperature components in the aerospace field, such as gas turbines, jet thrusters, combustors and thermal protection structures of spacecraft.
In conclusion, Inconel 617 alloy wire is widely used in the aerospace industry for its high temperature resistance, oxidation resistance, corrosion resistance and excellent mechanical properties.



Changzhou Victory Technology Co., Ltd

+8619906119641 victory@dlx-alloy.com victory-alloy.com

NO.32 West Taihu Road, Xinbei District, Changzhou, Jiangsu