Oil And Gas Industry Nickel Based Alloy Wire Inconel 825 Wire With High Temperature Resistance

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: Inconel 825
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Inconel 825 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 825 Wire
- Material: Ni Cr Fe
- Nickel(Min): 38-46%
- Density: 8.14 G/cm3
- Melting Point: 1370-1400°C
- Modulus Of Elasticity: 196 GPa
- Thermal Conductivity: 10.3 W/(m·K)
- Elongation (≥ %): 45%
- Application: Oil And Gas Industry
- Sureface: Bright,Oxided
- Size: Customized
- Linear Expansion Coefficient: 13.2 μm/m·K
- Yield Strength: 345 MPa
- Tensile Strength: 690 MPa

More Images

Product Description

Our Product Introduction

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

Introduction:

1. Inconel 825 wire is a nickel-iron-chromium alloy wire renowned for its remarkable corrosion resistance in diverse aggressive environments.
2. It finds extensive use in chemical processing, oil and gas, and marine industries due to its ability to resist oxidizing and reducing acids, including sulfuric, phosphoric, and nitric acids.
3. With its excellent corrosion resistance, Inconel 825 wire is commonly employed in heat exchangers, chemical processing equipment, and seawater handling systems.
4. It offers reliable performance and durability, as it can maintain its mechanical strength even in high-temperature environments.

Parameter:

Chemical composition:
Nickel (Ni): 38-46%
Chromium (Cr): 19.5-23.5%
Molybdenum (Mo): 2.5-3.5%
Copper (Cu): 1.5-3.0%
Physical properties:
Density: 8.14 g/cm³
Melting point: 1370-1400°C
Modulus of elasticity: 196 GPa
Thermal conductivity: 10.3 W/(m·K) (room temperature)
Linear expansion coefficient: 13.2 μm/m·K (room temperature)
Mechanical behavior:
Yield strength: 345 MPa (room temperature)
Tensile strength: 690 MPa (room temperature)
Elongation: 45% (room temperature)

Chemical Composition (%)										
C	Si	Mn	S	Mo	Ti	Cr	Ni	Al	Fe	Cu
≤0.05	≤0.50	≤1.00	≤0.03	≤2.5~3.5	≤0.6~1.2	19.5~23.5	38.0~46.0	≤0.2	≥22.0	1.5~3.0

Standard			
Sheet/Plate	Round bar/Wire	Pipe	Tube
ASME SB-424 ASME SB-906	ASME SB-425	ASME SB-423 ASME SB-829 ASME SB-163 ASME SB-751 ASME SB-775	ASME SB-704 ASME SB-705 ASME SB-751 ASME SB-775

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

Specification	Title
B163	Seamless Nickel and Nickel Alloy Condenser and Heat-Exchanger Tubes
B423	Nickel-Iron-Chromium-Molybdenum-Copper Alloy (UNS N08825 and N08221)* Seamless Pipe and Tube
B424	Ni-Fe-Cr-Mo-Cu Alloy (UNS N08825 and UNS N08221)* Plate, Sheet, and Strip
B425	Ni-Fe-Cr-Mo-Cu Alloy (UNS N08825)
B704	Welded UNS N06625 and UNS N08825 Alloy Tubes
B705	Nickel-Alloy (UNS N06625 and N08825) Welded Pipe

B751	General Requirements for Nickel and Nickel Alloy Welded Tube

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

Characteristic:

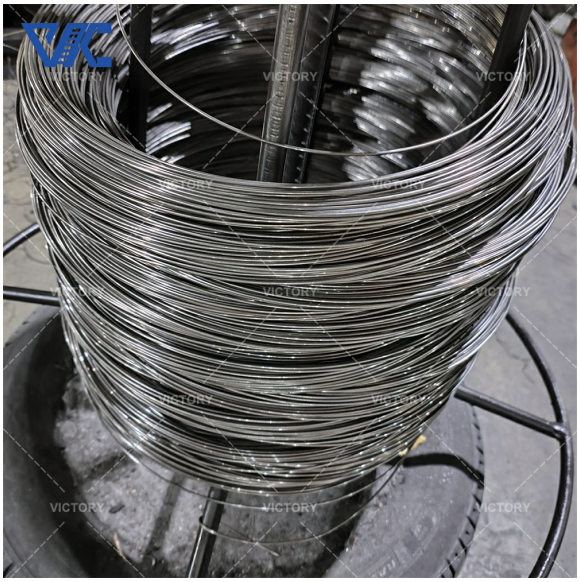
Corrosion resistance: Inconel 825 alloy wire has excellent corrosion resistance and can resist the erosion of corrosive media such as sulfuric acid, hydrochloric acid, chloride, and oxidizing acids.
Antioxidation: It can be used stably for a long time in high temperature oxidizing environment and has good antioxidant properties.
Resistance to stress corrosion cracking: Inconel 825 alloy wire has good resistance to stress corrosion cracking and can maintain stability under high stress and corrosive media.
Excellent processability: It has good processability and is convenient for various processing and forming operations.

Advantage:

Corrosion resistance: Inconel 825 alloy wire shows excellent corrosion resistance in corrosive media, which can extend the service life of equipment.
High temperature stability: It can maintain good stable performance in high temperature environments and is suitable for high temperature processes and equipment.
Creep resistance: It has good creep resistance and can maintain shape stability under high temperature and high stress conditions.
Resistance to stress corrosion cracking: It has good resistance to stress corrosion cracking and is suitable for applications in high stress environments.

Application:

Oil and natural gas extraction: used in oil well casing, tubing, valves and production equipment, resistant to acid, chloride and high temperature environments.
Petroleum Refining: Used to manufacture equipment such as furnaces, pipes, heat exchangers and heating elements to cope with corrosive media and high temperature conditions.
Chemical processing: suitable for chemical reactors, distillation equipment and storage tanks, etc., providing stable performance in corrosive media and high temperatures.
Marine environment: used in offshore oil platforms and seawater treatment equipment, with good resistance to seawater corrosion.
Overall, Inconel 825 alloy wire is an ideal material choice in the oil and gas industry to meet the challenges of corrosive media, high temperature and high pressure environments. Its corrosion resistance, high temperature stability and resistance to stress corrosion cracking make it a reliable material for critical components and equipment.



Q & A:

Q1: What are the main advantages of Inconel 825 wire?
A1: Inconel 825 wire offers exceptional corrosion resistance in a wide range of aggressive environments and is particularly well-suited for applications involving acids, such as sulfuric acid and phosphoric acid.

Q2: What industries commonly utilize Inconel 825 wire?
A2: Inconel 825 wire is commonly used in industries such as chemical processing, oil and gas, and marine, where corrosion resistance is crucial, and it finds applications in equipment such as heat exchangers, chemical processing equipment, and seawater handling systems.

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