



## Medical Instruments Incoloy 825 Wire Incoloy Alloy With Biocompatibility

Our Product Introduction

### Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: CE, ROHS, ISO 9001
- Model Number: Incoloy 825
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Plastic film or waterproof woven bag inside, wire packed in spool put into carton, coil wire or strip wire put into wooden case
- Delivery Time: 5-21 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month



### Product Specification

- Name: Incoloy 825 Wire
- Material: Ni Fe Cr Mo
- Nickel(Min): 38-46%
- Application: Artificial Joints, Surgical Instruments, Catheters And Stents
- Coefficient Of Expansion:  $14.0 \mu\text{m/m } ^\circ\text{C}$  (20 – 100°C)
- Modulus Of Rigidity: 75.9 KN/mm<sup>2</sup>
- Density (g/m3): 8.14 G/cm3
- Modulus Of Elasticity: 196 KN/mm<sup>2</sup>
- Elongation ( $\geq$  %): 30%
- Melting Point: 1400°C
- Tensile Strength: 550 MPa
- Yield Strength: 220 MPa
- Condition: Hard / Soft
- Surface: Bright, Oxided



### More Images



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## Product Description

### Introduction:

Incoloy 825 Wire is an alloy wire composed of elements such as nickel, iron, chromium and molybdenum. This alloy wire is suitable for medical fields such as artificial joints, surgical instruments, catheters and stents.

Key parameters include a nickel content between 38-46% and a density of 8.14 g/cm<sup>3</sup>. Its linear expansion coefficient is 14.0 μm/m·C (in the range of 20-100 °C), its stiffness modulus is 75.9 kN/mm<sup>2</sup>, and its elastic modulus is 196 kN/mm<sup>2</sup>. In addition, the alloy wire has an elongation of more than 30%, a tensile strength of 550 MPa, and a yield strength of 220 MPa.

Incoloy 825 Wire is widely used in medical applications such as artificial joints, surgical instruments, catheters and stents. It is biocompatible and corrosion-resistant, compatible with human tissue, and provides reliable support and function in the body. Its good mechanical properties and processability make it ideal for manufacturing medical devices.

To sum up, Incoloy 825 Wire is an alloy wire widely used in medical fields such as artificial joints, surgical instruments, catheters and stents. With its excellent physical and mechanical properties, as well as biocompatibility, it is able to meet the requirements of medical devices and provide reliable treatment and support to patients.

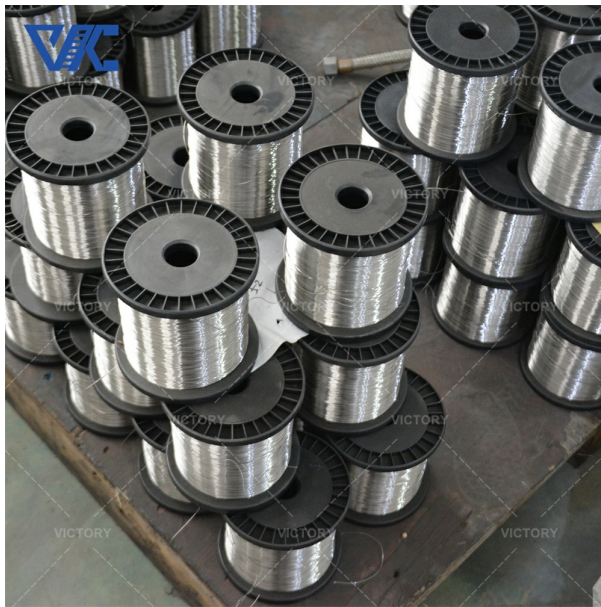
### Parameter:

Chemical Composition (%)									
C	Si	Mn	S	Mo	Ti	Cr	Ni	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	≥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

Mechanical Properties				
Status	Tensile Strength (Rm N/mm <sup>2</sup> )	Yield strength (RP0.2N/mm <sup>2</sup> )	Elongation(A5%)	HB
Solution treatment	550	220	30	≤200

Incoloy 825 (NS142) similiaer trademark			
UNS	Trademark	JIS	W.Nr
N08825	Incoloy825	NCF825	2.4858



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

### Characteristic:

**Corrosion resistance:** Incoloy 825 alloy wire exhibits excellent corrosion resistance and can resist corrosion of medical devices by biological fluids, chemicals, and oxidizing media.

**Biocompatibility:** This alloy wire has good biocompatibility, is non-toxic and non-irritating to human tissues, and will not cause allergies or rejection reactions.

**High strength:** Incoloy 825 alloy wire has high strength and hardness and is suitable for manufacturing precision medical devices.

### Advantage:

**Corrosion resistance:** Incoloy 825 alloy wire has excellent corrosion resistance in medical devices, which can extend the service life of the device and improve its stability and reliability.

**Biocompatibility:** This alloy wire has good biocompatibility, which can reduce adverse effects on the human body and make medical devices safer and more reliable.

**Processability:** Incoloy 825 alloy wire is easy to process and shape, and is suitable for manufacturing medical devices with various complex structures and precision components.

### Specific applications:

**Implantable medical devices:** Incoloy 825 alloy wire can be used to manufacture implantable medical devices, such as artificial joints, bone nails and dental implants, to provide corrosion resistance and biocompatibility.

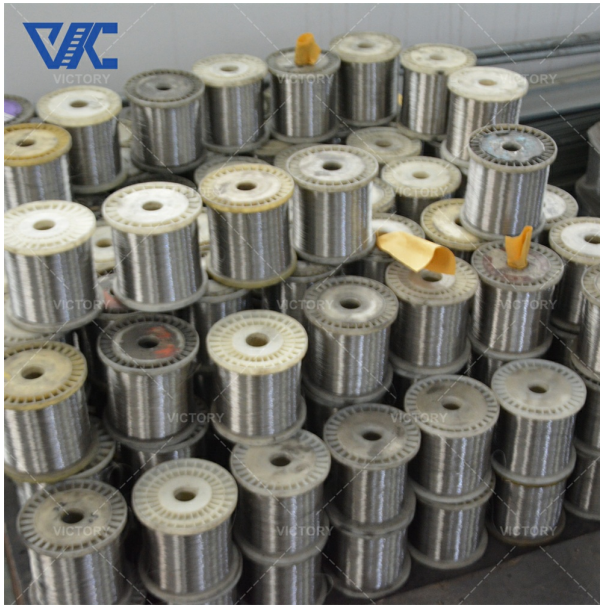
**Surgical instruments:** Suitable for manufacturing various surgical instruments, such as surgical forceps, blades and needles, etc., to meet the requirements for corrosion resistance and high strength.

**Medical device components:** Can be used to manufacture critical components of medical devices such as guidewires, catheters, and stents to provide corrosion resistance and reliability.

### Other relevant knowledge points:

**Cleaning and Disinfection:** When using medical devices made from Incoloy 825 alloy wire, proper cleaning and disinfection procedures are critical to ensuring their hygiene and safety.

**Standards and Specifications:** During the medical device manufacturing process, applicable standards and specifications, such as ISO 10993 Biological Evaluation Standard, are followed to ensure product quality and compliance.



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