# Medical Device Field C276 Hastelloy Alloy Wire With Biocompatibility

#### **Basic Information**

Place of Origin: ChinaBrand Name: Victory

Certification: CE,ROHS,ISO 9001

Model Number: HC-276Minimum Order 5kg

Quantity:

• 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: 7 to 20 Days

• Payment Terms: L/C, T/T, Western Union, MoneyGram

• Supply Ability: 300 tons per month



#### **Product Specification**

Name: Hastelloy C276 Wire
Type: Nickel Alloy Wire
Grade: Ni Cr Mo
Elongation(%): 30%

Density: 8.89 G/cm3
Brinell Hardness HB: ≤220

• Tensile Strength Rm 760MPA

N/mm²:

• Yieldstrength R P0. 2 345MPA

N/mm²:

Melting Point: 1325-1370°CElectrical 1.30 Microhm-m

Resistivity 24°C:

Thormal 0.4 M/m I/



#### More Images



#### **Product Description:**

Hastelloy Wire Product Overview

Hastelloy C276 alloy wire plays an important role in the field of medical devices. As a high performance nickel-based alloy, Hastelloy C276 has excellent corrosion and oxidation resistance. This alloy wire is widely used in medical device manufacturing, providing reliable solutions for various critical components and equipment.

Hastelloy C276 alloy wire has excellent corrosion resistance and can resist corrosion from liquids and chemicals in the body, including body fluids, acidic media and oxides. This makes it the material of choice for manufacturing medical devices that require high corrosion resistance, such as implantable medical devices and surgical tools.

In addition, Hastelloy C276 alloy wire has good biocompatibility and will not cause allergic reactions or tissue damage, making it suitable for medical devices in contact with human tissue. It also exhibits excellent anti-wear properties and temperature stability, maintaining its stability in friction and wear environments and maintaining its performance during high-temperature disinfection and sterilization processes.

In short, Hastelloy C276 alloy wire is one of the indispensable materials in the field of medical devices. Its excellent properties such as corrosion resistance, biocompatibility, as well as wear resistance and temperature stability make it an ideal choice for manufacturing high-quality, durable and reliable medical devices.



#### **Characteristic:**

Corrosion resistance: Hastelloy C276 alloy wire has excellent corrosion resistance and can resist erosion by a variety of acids, alkalis and oxidizing media.

High temperature stability: This alloy wire can maintain stable performance in high temperature environments and is suitable for high temperature disinfection and sterilization processes.

Biocompatibility: Hastelloy C276 alloy wire has good compatibility with human tissue and will not cause allergic reactions or other adverse effects.

Strength and ductility: Alloy wire has high strength and good ductility, and is suitable for manufacturing precision parts of medical devices.

#### **Technical Parameters:**

Hastello y Alloy	Ni	Cr	Со	Мо	FE	W	Mn	С	V	Р	S	Si
C276	Balance	14.5- 16.5	2.5 Max	15.0-17.0	4.0-7.0	3.0- 4.5	1.0 Max	0.01 Max	0.35 Max	0.04 Max	0.03 Max	0.08 Max

#### Advantage:

Corrosion resistance: Hastelloy C276 alloy wire can resist erosion from a variety of corrosive media in medical devices, extending the service life of the device.

Biocompatibility: Alloy wire has good compatibility with human tissue and is suitable for direct contact parts of medical devices without causing adverse reactions.

Wear resistance: Alloy wire has good anti-wear properties and can withstand friction and wear in medical devices, improving the durability of the device

High strength: Hastelloy C276 alloy wire has high strength and can be used to manufacture lightweight, high-strength medical device parts, improving the performance and reliability of the device.

#### **Application:**

Artificial joints: Articular surface coatings and connecting brackets used in the manufacture of artificial joints to provide corrosion and wear resistance.

Cardiovascular devices: Suitable for manufacturing cardiac stents, vascular stents and vascular interventional devices, etc., with good biocompatibility and corrosion resistance.

Medical sensors: Used to manufacture electrodes and wires in medical sensors, providing stable electrical properties and corrosion resistance.

Surgical instruments: Suitable for manufacturing blades, clamps and surgical needles in surgical instruments, with good cutting performance and corrosion resistance.

#### Other relevant knowledge points:

Hastelloy C276 alloy wire can be formed through various processing techniques such as cold drawing, hot drawing, welding and 3D printing.

During the medical device manufacturing process, temperature, alloy composition, and processing techniques need to be strictly controlled to ensure the quality and performance of the final product.

In view of the high cost of Hastelloy C276 alloy wire, its application in the field of medical devices is mainly concentrated in specific fields

with high requirements for corrosion resistance and high strength.

#### Type we could offer

ASTM	Alloy	Туре	UNS	Misc./Shape
ASTM B574 Bar	Hastelloy C276	Nickel	N10276	Bar
ASTM B575 Plate	Hastelloy C276	Nickel	N10276	Plate
ASTM B575 Strip	Hastelloy C276	Nickel	N10276	Strip
ASTM B575 Sheet	Hastelloy C276	Nickel	N10276	Sheet
ASTM B619 Welded Pipe	Hastelloy C276	Nickel	N10276	Welded Pipe
ASTM B622 Seamless Tubing	Hastelloy C276	Nickel	N10276	Seamless Tubing
ASTM B366 Fittings	Hastelloy C276	Nickel	N10276	Fittings
ASTM B574 Wire	Hastelloy C276	Nickel	N10276	Wire

## contact us email:victory@dlx-alloy.com

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How much stress can Hastelloy HC276 alloy wire withstand at high temperatures? Hastelloy HC276 alloy wire can withstand high stress at high temperatures, the specific value depends on factors such as diameter and material processing conditions.

What is the thermal expansion coefficient of Hastelloy HC276 alloy wire?

Hastelloy HC276 alloy wire has a low thermal expansion coefficient and can maintain good dimensional stability when temperature

What are the main features of Hastelloy HC276 alloy wire?

Hastelloy HC276 alloy wire has excellent corrosion resistance, high temperature strength and corrosion resistance, and is suitable for harsh chemical environments.



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