



Aerospace Industry Nickel Alloy Hastelloy B3 Wire With Low Density

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: B3
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Nickel wire is rolled on white spool or packed with plastic film,in cartoon boxes. Special packaging requirements can also be accommodated. OEM is also acceptable
- Delivery Time: 5-21 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month



Product Specification

- Product Name: Hastelloy B3 Wire
- Material: Ni Cr Mo
- Density: 9.2 G/cm3
- Melting Point: 1325-1370°C
- Thermal Conductivity: 10.0 W/m-K
- Yield Strength: 345 MPa
- Tensile Strength: 760 MPa
- Elongation (≥ %): 40%
- Application: Turbine Blades, Combustion Chamber, Nozzle
- Surface: Bright,Oxided
- Hardness: ≤ 100 HB
- Highlight: Nickel Alloy Hastelloy C4 Wire, Hastelloy C22 Wire



More Images



Product Description

Introduction:

Hastelloy B3 alloy wire has a wide range of applications in the aerospace industry. Hastelloy B3 alloy is a nickel-based alloy with excellent corrosion resistance and high temperature performance, especially suitable for use in extreme environments. In the aerospace industry, materials need to maintain stable performance in high temperatures, high pressures and corrosive environments. Hastelloy B3 alloy wire is favored for its excellent corrosion resistance and resistance to stress corrosion cracking. It can perform well in corrosive environments such as acidic media, chloride, sulfuric acid, and hydrochloric acid, and also has good resistance to chloride stress corrosion cracking.

The manufacturing process of Hastelloy B3 alloy wire usually includes the following steps: first, cut the wire of appropriate size from Hastelloy B3 alloy plate or rod; then, use special equipment to stretch, wind and bend the Hastelloy B3 alloy wire, etc. Processing operations to obtain the desired diameter and shape; next, the processed alloy wire may need to be heat treated to relieve stress and improve material properties; finally, surface treatment such as polishing, sandblasting, or electroplating is performed as needed, to improve appearance and corrosion resistance.

In summary, Hastelloy B3 alloy wire is widely used in the aerospace industry. It has excellent corrosion resistance and high temperature performance, providing reliable performance in extreme environments. This alloy wire can meet the high material requirements of the aerospace industry and is widely used in the manufacture of aircraft engine parts, gas turbines, combustion chambers and other key components to ensure flight safety and reliability.

Characteristic:

Corrosion resistance: Hastelloy B3 alloy wire has excellent corrosion resistance and can maintain stability in corrosive media such as strong acids, strong alkalis and oxidants. It also shows good corrosion resistance to some harmful gases such as hydrogen sulfide (H₂S).

Oxidation resistance: Alloy wire has good oxidation resistance and can maintain stability in high temperature environments to avoid material failure caused by oxidation reactions.

High strength and toughness: Hastelloy B3 alloy wire has excellent strength and toughness, able to withstand stress and deformation in the aerospace industry, maintaining structural integrity and reliability.

Advantage:

Good processability: Hastelloy B3 alloy wire has good plasticity and weldability, making it easy to process and manufacture into various shapes and structures to meet the needs of complex equipment and components in the aerospace industry.

Wide temperature range adaptability: Alloy wire can maintain stability and mechanical properties over a wide temperature range, making it suitable for aerospace industry applications at high or low temperatures.

Weight reduction: Hastelloy B3 alloy wire has a relatively low density, which can reduce the weight of structures in aerospace applications and improve aircraft fuel efficiency and performance.

Application:

Aero-engine components: Hastelloy B3 alloy wire can be used to manufacture turbine blades, combustion chambers, nozzles and other components of aero-engines. It remains stable in high temperatures and corrosive environments, providing reliable performance and durability.

Aerospace equipment: Alloy wire can be used to manufacture key components such as fuel systems, oxidizer systems, and propulsion systems in aerospace equipment. It can resist the corrosion of strong acid, strong alkali and high temperature environment, ensuring the reliability and safety of the equipment.

Aerospace structural parts: Hastelloy B3 alloy wire can be used to manufacture aerospace structural parts, such as fuselage shells, aviation parts, etc. Its high strength and good corrosion resistance can meet the requirements of the aerospace industry for structural strength and reliability.

Other relevant knowledge points:

Hastelloy B3 alloy wire is a nickel-based alloy whose main alloy elements include nickel (Ni), molybdenum (Mo), chromium (Cr) and iron (Fe). Its chemical composition provides good corrosion resistance and mechanical properties.

Hastelloy B3 alloy wire is usually formed and processed by cold working or hot working. Cold working includes cold drawing and cold rolling, and hot working includes hot forging and hot rolling.

In addition to its application in the aerospace industry, Hastelloy B3 alloy wire is also widely used in chemical industry, petroleum, medicine, food processing and other fields. It is especially suitable for occasions with high requirements for corrosive environments.

In the aerospace industry, the use of Hastelloy B3 alloy wire needs to comply with relevant standards and specifications, such as those set by the American Aerospace Industries Association (AIAA) and the International Aeronautical Standards Organization (ISO).

Parameter:

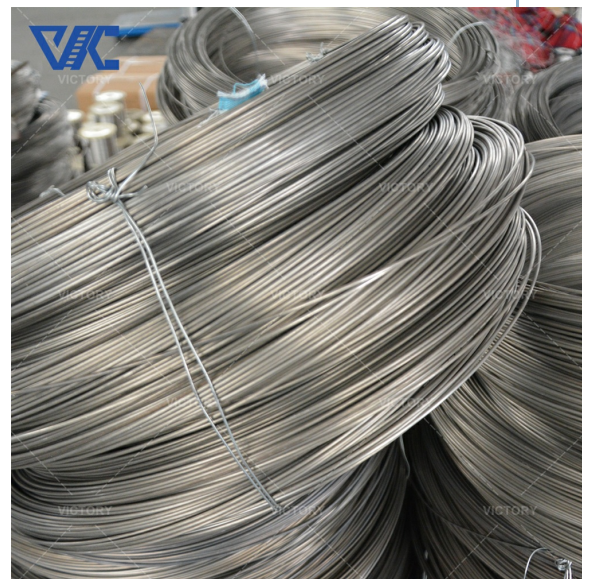
Hastelloy Alloy	Ni	Cr	Co	Mo	FE	W	Mn	C	V	P	S	Si
B-3	≥65	1Max	3Max	≤28.5	1.5 Max	≤3	1.0 Max	0.01 Max		-		0.1Max

Type we could offer

ASTM	Alloy	Type	UNS	Misc./Shape
ASTM B574 Bar	Hastelloy B-3	Nickel	N10675	Bar
ASTM B575 Plate	Hastelloy B-3	Nickel	N10675	Plate
ASTM B575 Strip	Hastelloy B-3	Nickel	N10675	Strip
ASTM B575 Sheet	Hastelloy B-3	Nickel	N10675	Sheet
ASTM B619 Welded Pipe	Hastelloy B-3	Nickel	N10675	Welded Pipe
ASTM B622 Seamless Tubing	Hastelloy B-3	Nickel	N10675	Seamless Tubing
ASTM B366 Fittings	Hastelloy B-3	Nickel	N10675	Fittings
ASTM B574 Wire	Hastelloy B-3	Nickel	N10675	Wire



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



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