High Temperature Gas Turbine Incoloy 800HT Alloy Nickel Alloy With Excellent Mechanical Properties

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: Incoloy 800HT
- 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 800HT Wire
- Material: Ni Cr Fe
- Nickel(Min): 30%
- Application: Gas Turbine Blades, Gas Turbine Combustor Components, Gas Turbine Heat Exchangers
- Density (g/m3): 7.94 G/cm³
- Melting Point: 1350-1400°C
- Thermal Conductivity: 11.5 W/(m·K)
- Linear Expansion Coefficient: 14.4 μm/m·°C
- Elongation (≥ %): 30%
- Yield Strength: 485 MPa
- Tensile Strength: 590 MPa
- Surface: Bright Color, Acid White, Oxidized Color
- Highlight: **High Temperature Incoloy 800HT Alloy**,

More Images

Our Product Introduction

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Product Description

Introduction:

Incoloy 800HT Wire is a nickel-chromium-iron alloy wire with outstanding performance characteristics. Its nickel content is as low as 30%, its density is 7.94 g/cm3, and it has a higher melting point range between 1350-1400 degrees Celsius.
Incoloy 800HT Wire has excellent elongation of over 30%, yield strength of 485 MPa and tensile strength of 590 MPa. This allows it to withstand high stresses and pressures while possessing a certain capacity for plastic deformation. The alloy wire also has good corrosion resistance and can resist erosion by corrosive media such as oxidation, sulfidation and carbonization. This allows it to maintain its material integrity and reliability in harsh working environments.
Incoloy 800HT Wire is a high performance alloy wire suitable for applications such as gas turbine blades, gas turbine combustor components and gas turbine heat exchangers. It has excellent mechanical properties, corrosion resistance and high temperature stability, making it an ideal choice in many industrial fields.

Parameter:

Chemical composition:
Nickel (Ni): 30-35%
Iron (Fe): 39.5% (minimum content)
Chromium (Cr): 19-23%
Copper (Cu): 0.75% (maximum content)
Aluminum (Al): 0.15-0.60%
Carbon (C): 0.06-0.10%
Physical properties:
Density: 7.94 g/cm³
Melting point: 1350-1400°C
Thermal conductivity: 11.5 W/(m·K) (room temperature)
Linear expansion coefficient: 14.4 μm/m·°C (room temperature -100°C)
Mechanical behavior:
Yield strength: ≥485 MPa (room temperature)
Tensile strength: ≥590 MPa (room temperature)
Elongation: ≥30% (room temperature)

Incoloy	Ni	Cr	Fe	C	Mn	S	Si	Cu	Al	Ti	p
800HT	30.0-35.0	19.0-23.0	39.5min	0.06-0.1	1.50max.	0.015max.	1.0max.	0.75max.	0.15-0.60	0.15-0.60	0.045max

AMS Number	Alloy	Type	UNS	Cross Ref. Spec	Misc./Shape
AMS 5766 Bar	Incoloy 800HT	Nickel	N08811	-	Bar
AMS 5766 Custom Tube	Incoloy 800HT	Nickel	N08811	-	Custom Tube
AMS 5871 Plate	Incoloy 800HT	Nickel	N08811	-	Plate
AMS 5871 Sheet	Incoloy 800HT	Nickel	N08811	-	Sheet
AMS 5871 Strip	Incoloy 800HT	Nickel	N08811	-	Strip

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:

Incoloy 800HT alloy wire has the following characteristics in the field of high temperature gas turbines:
High temperature resistance: Incoloy 800HT alloy wire can operate stably for a long time in high temperature environments and has excellent high temperature resistance.
Oxidation resistance: This alloy wire exhibits excellent antioxidant properties and can resist oxidative damage caused by high-temperature oxidation and thermal cycles.
Corrosion resistance: Incoloy 800HT alloy wire shows good corrosion resistance in corrosive environments and can resist the erosion of acidic and alkaline media.

Advantage:

Incoloy 800HT alloy wire has the following advantages in high temperature gas turbine applications:
High temperature stability: Incoloy 800HT alloy wire can maintain stable performance in high temperature environments, has excellent high temperature strength and durability, and is suitable for the requirements of high temperature gas turbines.
Anti-oxidation ability: This alloy wire has excellent antioxidant properties and can effectively resist oxidation at high temperatures and oxidative damage caused by thermal cycles, extending the service life of the gas turbine.
Corrosion resistance: Incoloy 800HT alloy wire has good corrosion resistance in corrosive environments, can resist corrosion from acidic and alkaline media, and improves the durability of gas turbines.

Specific applications:

Incoloy 800HT alloy wire has the following specific applications in the field of high temperature gas turbines:
Gas turbine blades: Incoloy 800HT alloy wire can be used to manufacture high-temperature gas turbine blades, which can withstand the impact and pressure of high-temperature environments and high-speed airflow.
Gas turbine combustor components: This alloy wire can be used to manufacture gas turbine combustor components, such as burner nozzles and combustion chamber liners, to withstand the effects of high temperatures and corrosive gases.
Gas turbine heat exchanger: Incoloy 800HT alloy wire can be used to manufacture gas turbine heat exchangers for heat exchange and energy recovery of high-temperature gas.

Other relevant knowledge points:

In high temperature gas turbine applications using Incoloy 800HT alloy wire, the following matters need to be noted:
Temperature control: Reasonably control the operating temperature of the gas turbine to ensure the performance and life of Incoloy 800HT alloy wire.
Environmental corrosion: High-temperature gas turbines may be corroded by corrosive gases, and corresponding protective measures need to be taken, such as coatings or alloy protective layers, to extend the service life of Incoloy 800HT alloy wire.
Regular maintenance: Regularly inspect and maintain the high-temperature gas turbine and its components, including Incoloy 800HT alloy wire, to ensure its normal operation and avoid potential failures.
In general, Incoloy 800HT alloy wire, as a high-temperature gas turbine material, has excellent properties such as high temperature resistance, oxidation resistance and corrosion resistance, and can be used in gas turbine blades, combustion chamber components, heat exchangers and other fields. It is necessary to pay attention to temperature control, environmental corrosion and regular maintenance when using it to ensure its performance and life.

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Oem service:
Welcome customized size
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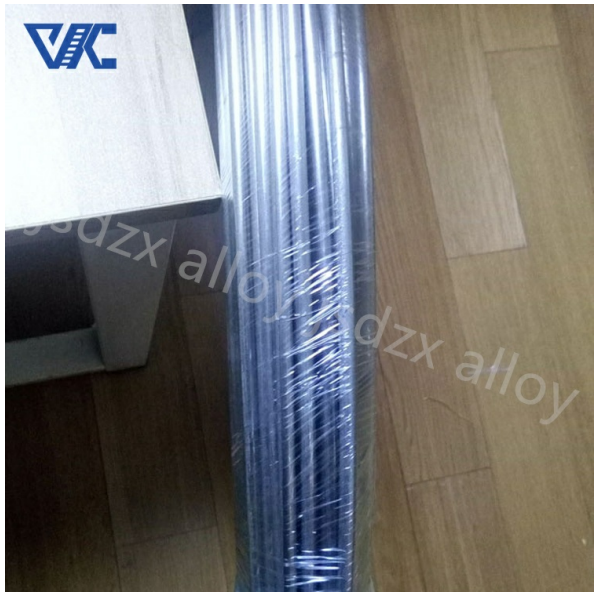

Q & A:

Q: Does Incoloy 825 Wire meet international quality standards?
A: Yes, Incoloy 825 Wire is manufactured to meet international quality standards such as ASTM B425 and ASME SB425. These standards ensure the consistent quality and performance of the wire.

Q: Are there any quality certifications available for Incoloy 825 Wire?
A: Yes, Incoloy 825 Wire can be supplied with various quality certifications such as ISO 9001, AS9100, or NACE MR0175. These certifications validate that the wire meets specific quality requirements and industry standards, providing assurance of its high-quality and reliable performance.

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