

Nuclear Power Plant Incoloy 800h Wire Nickel Alloy Wire With High Temperature Resistance

Basic Information

- Place of Origin:
- Brand Name:
- Certification:
- Model Number:
- Minimum Order Quantity:
- Price:
- Packaging Details:
- Delivery Time:
- Payment Terms:
- Supply Ability:

Incoloy 800H ity: 5 Kg Negotiable Plastic film or waterproof woven bag inside, wire packed in spool put into carton,coil wire or strip wire put into wooden case 5-21 days

- L/C, T/T, Western Union, MoneyGram
- y: 300 tons per month

China

Victory

CE, ROHS, ISO 9001

VK

BLX

之信科技有限公司



Product Specification

• Name:	Incoloy 800H Wire
 Material: 	Ni Cr Fe
 Nickel(Min): 	30%
Application:	Fuel Elements Fuel Cladding Heat Exchangers And Cooling Systems
 Density (g/m3): 	7.94 G/cm3
 Melting Point: 	1350-1400 °C
 Tensile Strength: 	600 MPa
 Yield Strength: 	260 MPa
 Elongation (≥ %): 	30%
• Surface:	Bright Color, Acid White, Oxidized Color
 Highlight: 	Incoloy 800h Wire, Incoloy 800h Nickel Alloy Wire



More Images



Our Product Introduction

Product Description

Introduction:

Incoloy 800H alloy wire is a high-temperature alloy material widely used in nuclear power plants. It belongs to the nickel-ironbased alloy family and has excellent high temperature resistance and corrosion resistance. It is widely used in key components and equipment in nuclear power plants.

Incoloy 800H alloy wire exhibits excellent stability and durability in high temperature environments. It is able to withstand the challenges of high-temperature corrosion and oxidation, maintaining the strength and structural integrity of the material. This makes it ideal for use in nuclear power plants to create key components such as fuel elements, pipes, heaters and steam generators for nuclear reactors.

In addition, Incoloy 800H alloy wire also has excellent radiation resistance. It can resist damage to materials caused by the radiation environment generated in nuclear power plants, ensuring the long-term operation and safety of equipment.

In addition, Incoloy 800H alloy wire has good processing performance and weldability, making manufacturing and maintenance work more convenient. Its high strength and excellent mechanical properties enable it to withstand high pressure and stress, ensuring reliable operation of nuclear power plant equipment under harsh working conditions.

In short, Incoloy 800H alloy wire is a high-temperature alloy material widely used in nuclear power plants. Its high temperature resistance, corrosion resistance and radiation resistance, as well as good processing properties, make it the first choice material for manufacturing key components of nuclear power plants.

Parameter:

Chemical composition:

Iron (Fe): 39.5% (minimum content) Nickel (Ni): 30.0% (minimum content) Chromium (Cr): 19.0-23.0% (minimum and maximum content) Copper (Cu): $\leq 0.75\%$ (maximum content) Aluminum (Al): ≤ 0.15 -0.60% (maximum and minimum content) Carbon (C): $\leq 0.10\%$ (maximum content) Titanium (Ti): ≤ 0.60 -1.20% (maximum and minimum content) Density: 7.94 g/cm3 Melting point: about 1350-1400 degrees Celsius Tensile strength: ≥ 600 MPa (MPa) Yield strength: ≥ 260 MPa (MPa) Elongation: $\geq 30\%$

Incoloy	Ni	Cr	Fe	С	Mn	S	Si	Cu	Al	Ti
800H	30.0-35.0	19.0-23.0	39.5min	0.10max.	1.50max.	0.015max.	1.0max.	0.75max.	0.15-0.60	0.15-0.6

AMS Number	Alloy	Туре	UNS	Cross Ref. Spec	Misc./Shape
AMS 5766 Bar	Incoloy 800H	Nickel	N08810	-	Bar
AMS 5766 Custom Tube	Incoloy 800H	Nickel	N08810	-	Custom Tube
AMS 5871 Plate	Incoloy 800H	Nickel	N08810	-	Plate
AMS 5871 Sheet	Incoloy 800H	Nickel	N08810	-	Sheet
AMS 5871 Strip	Incoloy 800H	Nickel	N08810	-	Strip

Characteristic:

High temperature stability: Incoloy 800H alloy wire can operate stably for a long time in high temperature environments and has excellent oxidation resistance and corrosion resistance.

Creep resistance: The alloy wire shows good creep resistance at high temperatures and can maintain stable shape and structure.

Radiation resistance: Incoloy 800H alloy wire has good radiation resistance and is suitable for applications in radiationexposed environments in nuclear power plants.

Advantage:

Good corrosion resistance: Incoloy 800H alloy wire has excellent corrosion resistance to the corrosive media in nuclear power plants and can resist the erosion of acidic and alkaline media.

High temperature strength: This alloy wire has high tensile strength and yield strength, and can still maintain good structural stability and mechanical properties at high temperatures.

Excellent heat treatment performance: Incolog 800H allog wire can adjust its mechanical properties and corrosion resistance through heat treatment to meet different process requirements in nuclear power plants.

Specific applications:

Fuel elements: Incoloy 800H alloy wire is often used as the support structure of fuel elements in nuclear power plants and can withstand the requirements of high temperature and radiation environments.

Fuel cladding: This alloy wire can also be used in the manufacture of fuel cladding. It has good corrosion resistance and high temperature strength, ensuring the integrity and stability of the fuel cladding.

Heat exchangers and cooling systems: Incoloy 800H alloy wire is also often used in heat exchangers and cooling systems in nuclear power plants to provide corrosion-resistant, high-temperature stability and radiation-resistant material options.

Other relevant knowledge points:

The environment of nuclear power plants has extremely strict requirements on materials. Incoloy 800H alloy wire meets the multiple challenges in nuclear power plants such as high temperature, corrosion and radiation through its excellent

performance.

When using Incoloy 800H alloy wire, it is necessary to make a reasonable selection based on specific application conditions and process requirements, and conduct appropriate heat treatment and material performance evaluation to ensure its reliability and safety in nuclear power plants.

Material selection in nuclear power plants is crucial to the performance and life of the equipment. As a high-quality material, Incoloy 800H alloy wire is widely used in key components of nuclear power plants, providing reliable support for nuclear power generation.

Summary: Incoloy 800H alloy wire is a high-temperature alloy material widely used in nuclear power plants. It has excellent corrosion resistance, high temperature strength and radiation resistance, and plays an important role in fuel elements, fuel cladding, heat exchangers, cooling systems, etc. Choosing the right material is crucial for the safe operation and long-term stability of nuclear power plants. Incoloy 800H alloy wire has become an ideal choice for the nuclear power plant field through its excellent performance and adaptability.



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

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



Q & A:

Q: Does Incoloy 800H Wire meet international quality standards?

A: Yes, Incoloy 800H Wire is manufactured to meet international quality standards such as ASTM B408 and ASME SB408. These standards ensure the consistent quality and performance of the wire.

Q: Are there any quality certifications available for Incoloy 800H Wire? A: Yes, Incoloy 800H Wire can be supplied with various quality certifications such as ISO 9001, AS9100, or NACE MR0175.

