High Temperature Resistance Alloy Wire Fe-25Ni-15Cr GH2132 Nimonic 80A Wire

Our Product Introduction

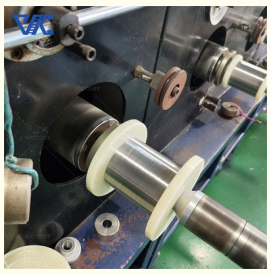
Basic Information

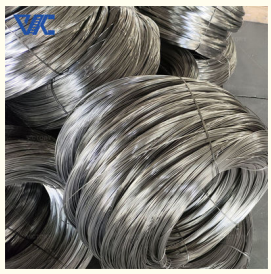
- Place of Origin: China
- Brand Name: Victory
- Certification: CE,ROHS,ISO 9001
- Model Number: GH2132
- Minimum Order Quantity: 5 Kg
- Price: Negotiable
- Packaging Details: Spool package with Carton box, Coil package with polybag
- Delivery Time: 5-21 days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month

Product Specification

- Product Name: GH2132(Nimonic 80A)
- Material: Nickel Chromium
- Nickel(Min): 70%
- Density: 8.19g/cm³
- Melting Point: 1320-1370°C
- Tensile Strength: 690 MPa
- Yield Strength: 270 MPa
- Application: Aerospace, Petrochemical, Heat Treatment Industry
- Highlight: **GH2132 Nimonic 80A Wire**, **High Temperature GH2132 Nimonic 80A Wire**, **Fe-25Ni-15Cr GH2132 Nimonic 80A Wire**

More Images





Product Description

Introduction:

GH2132 is a high temperature alloy also known as Nimonic 80A. It is a type of nickel-based alloy, mainly composed of elements such as nickel, chromium, iron and aluminum. The material is known for its excellent high temperature stability and corrosion resistance. GH2132 wire has excellent antioxidant properties and can resist oxidation and thermal corrosion in high temperature environments. It also exhibits good mechanical properties, including high strength, ductility and fatigue resistance.

The manufacturing process of GH2132 wire is relatively simple, easy to process and shape, and is suitable for a variety of processing methods. Its high temperature stability and corrosion resistance make it ideal for many high temperature applications. Whether in the fields of aerospace, petrochemicals or gas turbines, GH2132 wire has demonstrated excellent performance and reliability.

Parameter:

Chemical composition:
Nickel (Ni): Approximately 70%
Chromium (Cr): 19-21%
Density: Approximately 8.19 grams per cubic centimeter
Melting point: Approximately 1320-1370 degrees Celsius
Tensile strength:
At room temperature: Approximately 690 megapascals (MPa)
At high temperature (700 degrees Celsius): Approximately 290 megapascals (MPa)
Yield strength:
At room temperature: Approximately 270 megapascals (MPa)
At high temperature (700 degrees Celsius): Approximately 105 megapascals (MPa)
Thermal expansion coefficient: 12.4 x 10^-6 per degree Celsius (20-100 degrees Celsius range)
Thermal conductivity: Approximately 11.2 watts per meter-kelvin (at room temperature)

chemical composition (%)														
Brand	C	Si	Mn	S	P	Cr	Co	W	Mo	Ti	Al	Fe	Ni	other
	Less than													
GH2132	0.08	1	1 2	0.02	0.03	13.5~16		—	1 1.5	1.75~2.35	≤0.40	rest	24~27	B:0.001-0.01 V:0.1-05

The minimum mechanical properties of the alloy at room temperature						
Brand	heat treatment	tensile strength RmN/mm²	Yield strength Rp0.2N/mm2	Elongation As%	Brinell hardness HB	Rockwell hardness HRC
GH2132	solid solution + aging	895	585	15	248-341	24-37

Material variety	Heat treatment system
Bars, round cakes	980~1000℃, 1~2h, oil cooling +700~720℃, 12~16h, air cooling
Hot rolled plate, cold rolled plate	980~1000℃, air cooling +700~720℃, 16h, air cooling
cold drawn rod	980~1000℃, 1~2h, oil cooling +700~720℃, 16h, air cooling
Ring blank	980~990℃, 1~2h, oil cooling +700~720℃, 15h, air cooling
Cold heading and cold drawing	980~1000℃, 1~2h, water cooling or oil cooling +700~720℃, 16h, air cooling

Characteristic:

High temperature strength: GH2132 wire has excellent high temperature strength and can maintain high mechanical properties in high temperature environments.
Antioxidant properties: It exhibits good antioxidant properties and can resist oxidation and corrosion at high temperatures.
Creep resistance: GH2132 wire has good creep resistance and can withstand long-term continuous loading at high temperatures without deformation.
Anti-corrosion properties: It has good anti-corrosion properties in many corrosive media, including acidic, alkaline and chloride environments.

Advantage:

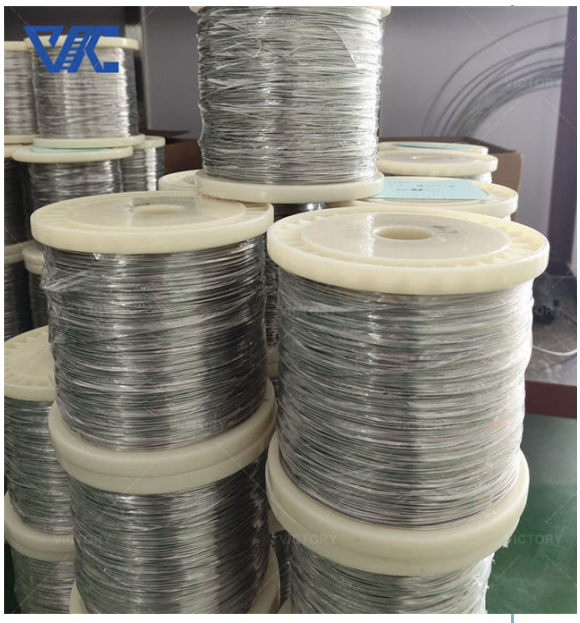
High temperature adaptability: GH2132 wire can work stably for a long time in extreme high temperature environments and has good high temperature resistance.
Balance of strength and toughness: It can maintain high strength and toughness under high temperature conditions and has good resistance to deformation.
Long life and reliability: Due to its excellent high temperature performance and oxidation resistance, GH2132 wire can extend the service life of equipment and improve system reliability.

Process performance requirements:

1. This alloy has good forgeability, with a forging heating temperature of 1140°C and a final forging temperature of 900°C.
2. The average grain size of the alloy is closely related to the deformation degree and final forging temperature of the forging.
3. The alloy has satisfactory welding performance. The alloy is welded in a solid solution state and subjected to aging treatment after welding.

Specific application areas:

Aerospace field: used to manufacture high-temperature components of aerospace engines, such as combustion chambers, turbine blades, turbine disks, etc.
Petrochemical industry: used in high-temperature furnace tubes, reactors, catalyst supports, steam converters and other equipment.
Nuclear industry: fuel elements, control rods, fuel pipelines and other components used in nuclear equipment.
Heat treatment industry: used to manufacture high-temperature stoves, furnace radiant tubes, heating elements and other equipment.



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

Q&A:

Q: What are the advantages of GH2132 wire compared with other common alloy materials?
A: GH2132 wire has better high-temperature strength, oxidation resistance and corrosion resistance than other common alloy materials.

Q: What are the specific applications of GH2132 wire in the aerospace field?
A: GH2132 wire is commonly used in high-temperature components such as combustion chambers, turbine blades, and turbine disks of aeroengines.

Q: What are the applications of GH2132 wire in the petrochemical industry?
A: GH2132 wire is often used to manufacture high-temperature furnace tubes, reactors, catalyst supports, steam converters and other petrochemical equipment.

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