



Np1 Np2 Pure Nickel Wire Ultra Thin 0.025 Mm-10mm

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| Basic Information | |
|-------------------------------------|--|
| Place of Origin: | China |
| Brand Name: | Victory |
| Model Number: | Ni200 Ni201 |
| Minimum Order Quantity: | 5 Kg |
| • Price: | 5 - 99 kilograms US\$45.00 |
| Packaging Details: | Plastic film or waterproof woven bag inside wire packed in spool put into carton,coil wir 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

| Standard: | ASTM B164, DIN 17752, JIS NW2200 |
|--|---|
| Grade Type: | N4, N6, Ni200, Ni201 |
| Material: | Ni |
| • Ni(min): | 99% |
| Melting Point: | 1435-1446°C |
| Elongation (≥ %): | 35% |
| Shape: | Wire |
| Ultimate Strength (≥ MPa): | 462 |
| Application: | Battery Pack, Electric Apparatus, Computers |
| Size: | 0.025-10mm, Can Customized |
| Technique: | Cold Rolled, bending, cutting, decoiling |
| Density(g/cm3): | 8.9 |



More Images



Product Description

Product Description:

Pure nickel wire is a wire-shaped product made of high-purity nickel material. It has outstanding properties including excellent corrosion resistance, high temperature stability, excellent electrical conductivity and mechanical strength.

Pure nickel wire is available in a wide range of diameters and can be customized according to customer needs, and is widely used in electronics, electrical, heating, automotive, chemical and medical industries. Pure nickel wire can be used to manufacture resistors, inductors, heaters, fuel nozzles, medical equipment and other products, and can also be used in chemical equipment, catalyst supports and electrolytic cells. Manufacturers can customize the diameter of pure nickel wire according to customer needs.

Common parameters:

Density: The density of pure nickel is approximately 8.9 g/cm3. Melting point: The melting point of pure nickel is approximately 1455 degrees Celsius.

Thermal expansion coefficient: The linear expansion coefficient of pure nickel is approximately 13.3-14.3 x 10^A-6/degrees Celsius. Resistivity: The resistivity of pure nickel is approximately 7.5-8.5 microohm-cm.

Conductive properties: Pure nickel is a good conductor and has good electrical conductivity.

Tensile strength: The tensile strength of pure nickel is approximately 200-400 MPa.

Hardness: Pure nickel has a lower hardness, usually in the Rockwell B hardness range of 50-90.

Corrosion resistance: Pure nickel has good corrosion resistance and has good corrosion resistance to some acids, alkalis and salt solutions.

Tensile strength:



The tensile strength of pure nickel wire refers to the maximum tensile force it can withstand under tensile loading. The level of tensile strength has the following effects on the use of pure nickel wire in specific applications:

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1. Structural strength: In structures that need to withstand tensile forces, such as suspension systems, springs, fasteners, etc., the tensile strength of pure nickel wire is an important performance indicator. Higher tensile strength means pure nickel wire can withstand greater forces and maintain structural integrity and stability.

2. Durability and Longevity: Pure nickel wire may need to undergo repeated stretching cycles or sustained stretching for long periods of time in certain applications. The high tensile strength allows pure nickel wire to maintain its functionality and performance under these stress conditions, extending its service life.

stress conditions, extending its service life. 3. Deformation resistance: The tensile strength of pure nickel wire is also closely related to its resistance to deformation. Higher tensile strength means that pure nickel wire is more difficult to plastically deform or break under the action of external forces, and has better antideformation properties.

4. Stress distribution: The tensile strength of pure nickel wire can also affect the stress distribution. Pure nickel wire with higher tensile strength can share stress more evenly and reduce the risk of local stress concentration, thus improving the stability and reliability of the structure.

It should be noted that when selecting pure nickel wire in a specific application, in addition to tensile strength, other factors need to be considered, such as temperature environment, corrosion resistance, conductive properties, etc.

Technical Parameters:

| Specifications | Values | | | | |
|-------------------|---------------------|--|--|--|--|
| Product name | Pure Nickel Wire | | | | |
| Ni(min) | 99% | | | | |
| Grade | N4,N6,Ni200,Ni201 | | | | |
| Size | 0.025-10mm | | | | |
| Shape | Wire | | | | |
| Hardness | S,1/4H,1/2H,3/4H,H | | | | |
| Melting Point | 1435-1446°C | | | | |
| Elongation (≥ %) | 35% | | | | |
| Resistance (μΩ.m) | 15 | | | | |
| Application | Industry,Electronic | | | | |

| Grade | Ni+Co | Cu | Si | Mn | С | Mg | S | Р | Fe | |
|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|--|
| N4 | 99.8 | 0.015 | 0.03 | 0.002 | 0.01 | 0.01 | 0.001 | 0.001 | 0.04 | |
| N6 | 99.6 | 0.10 | 0.10 | 0.05 | 0.10 | 0.10 | 0.005 | 0.002 | 0.10 | |
| Ni201 | ≥99.0 | ≤0.25 | ≤0.35 | ≤0.35 | ≤0.02 | / | ≤0.01 | / | ≤0.40 | |
| Ni200 | ≥99.2 | ≤0.25 | ≤0.35 | ≤0.35 | ≤0.15 | / | ≤0.01 | / | ≤0.40 | |

For more details, pls directly contact us.

Features:

Product Name: Nickel Wire Material: Ni Standard: ASTM B164, DIN 17752, JIS NW2200 Ultimate Strength (2 MPa): 462 Product name: Pure Nickel Wire Grade: N4,N6,Ni200,Ni201 Product Features: Pure nickel wire with a material of Ni Complies with ASTM B164, DIN 17752, JIS NW2200 standards Ultimate strength of at least 462 MPa Available in various grades: N4, N6, Ni200, Ni201 Diameter options: 0.025 mm, 0.05 mm, 0.1 mm

Relationship between tensile strength and conductive properties:

There is no direct causal relationship between the tensile strength and conductive properties of pure nickel wire. Tensile strength is a measure of a material's ability to resist breaking during stretching, while electrical conductivity describes a material's ability to conduct electrical current.

Although tensile strength and electrical conductivity are two different properties of materials, they may be affected by common factors, such as the material's lattice structure, impurity content, grain boundary properties, etc. These factors can affect both tensile strength and conductive properties.

For example, the tensile strength of pure nickel wire may be affected by the lattice structure. Larger grain size may cause grain boundary

slip and dislocation movement to occur more easily, thereby reducing tensile strength. At the same time, the larger grain size may hinder the conduction of electrons, thereby affecting the conductive performance. In addition, the presence of impurity elements may also affect the tensile strength and conductive properties of pure nickel wire. Impurity elements may alter the material's lattice structure, dislocation density, and electronic structure, thereby affecting both properties.

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FAQ:

What is the melting point of pure nickel wire? The melting point of pure nickel wire is about 1453°C (2647°F) and has high high temperature resistance.

What is the difference between pure nickel wire and copper wire? Pure nickel wire has a higher melting point, better corrosion resistance and lower resistivity than copper wire.

Can pure nickel wire be used for electronic component connections? Yes, pure nickel wire can be used for the connection of electronic components, such as welding and electrical connections, and has good electrical conductivity and mechanical strength.

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