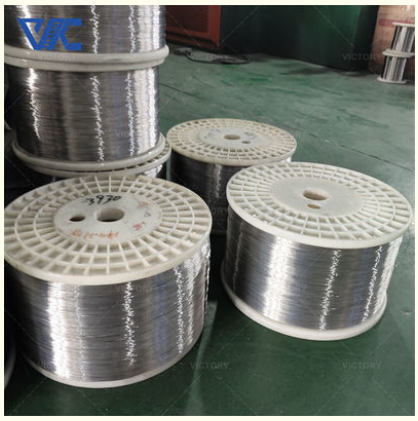
Corrosion-resistant nickel chromium alloy UNS N07718/W.Nr. 2.4668 inconel 718 wire for spring

Our Product Introduction

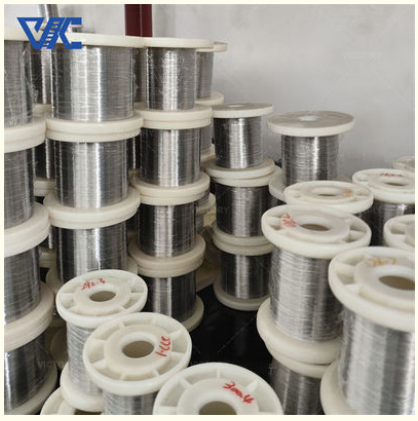
Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: ISO9001 ROHS
- Model Number: Inconel 718
- Minimum Order Quantity: 10 Kg
- Price: Negotiable
- Packaging Details: Spool Carton box, Coil package with polybag,then in woodencase
- Delivery Time: 20~40 Days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month

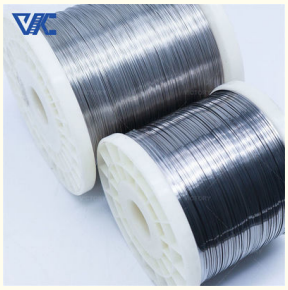


Product Specification

- Name: Corrosion-resistant Nickel Chromium Alloy UNS N07718/W.Nr. 2.4668 Inconel 718 Wire For Spring
- Material: Nickel Chromium Iron
- Ni (Min): 50~55%
- Density: 8.24 G/cm3
- Melting Point: 1260-1320°C
- Elongation (≥ %): 25 %
- Thermal Conductivity: 15.9 W/m·K
- Finishing: Bright,Oxided, Acid White
- Application: Construction, Industry Oil, Piping Systems
- Yield Strength: 550MPa
- Tensile Strength: 910 MPa
- Hardness: ≤ 363 HB
- Standard: ASTM, ASME
- Size: 0.200mm



More Images



Product Description

Inconel 718 alloy

Inconel 718 is a high-strength, corrosion-resistant nickel-chromium alloy known for its excellent mechanical properties at elevated temperatures. It is commonly used in aerospace, oil and gas, and other high-stress applications.

How does the performance of Inconel 718 spring wire compare to other commonly used spring materials?

1. Strength and Fatigue Resistance:
Inconel 718: High yield and tensile strength, excellent fatigue resistance, especially at elevated temperatures.
Stainless Steel: Good strength but generally lower than Inconel 718 at high temperatures.
Carbon Steel: High strength but can lose properties at elevated temperatures and is more susceptible to fatigue.
2. Corrosion Resistance:
Inconel 718: Superior resistance to oxidation and corrosion, particularly in extreme environments (e.g., high temperatures, acidic conditions).
Stainless Steel: Good corrosion resistance but may not withstand extreme conditions as well as Inconel 718.
Carbon Steel: Poor corrosion resistance; typically requires coatings or treatments.
3. Temperature Performance:
Inconel 718: Maintains mechanical properties at high temperatures, making it suitable for high-temperature applications.
Stainless Steel: Performs well at moderate temperatures but can lose strength at very high temperatures.
Carbon Steel: Generally not suitable for high-temperature applications due to loss of strength.
4. Fabricability:
Inconel 718: Can be challenging to machine and form due to its hardness, but can be welded and heat-treated effectively.
Stainless Steel: Generally easier to work with compared to Inconel 718.
Carbon Steel: Very easy to fabricate and form, widely used in various applications.
5. Cost:
Inconel 718: More expensive due to the cost of raw materials and processing.
Stainless Steel: Generally more affordable than Inconel 718.
Carbon Steel: Typically the least expensive option.

Parameter:

Chemical Properties of Inconel 718

Nickel (plus Cobalt) 50.00-55.00
Chromium.....17.00-21.00
Iron .....Balance
Niobium (plus Tantalum).....4.75-5.50
Molybdenum 2.80-3.30
Titanium.....0.65-1.15
Aluminum 0.20-0.80
Cobalt .....1.00 max.
Carbon.....0.08 max.
Manganese .....0.35 max.
Silicon .....0.35 max.
Phosphorus.....0.015 max.
Sulfur.....0.015 max.
Boron .....0.006 max.
Copper.....0.30 max

Density	8.19g/cm³	0.296 lb/in³
Melting point	1260-1336	2437°F

SPECIFICATIONS	
Form	ASTM
Rod,bar and wire	B 166
Plate,sheet and strip	B 168, B 906
Seamless pipe and tube	B 167, B 829
Welded pipe	B 517, B775
Fitting	B 366
Billet and bar for reforging	B 472
Forging	B 564

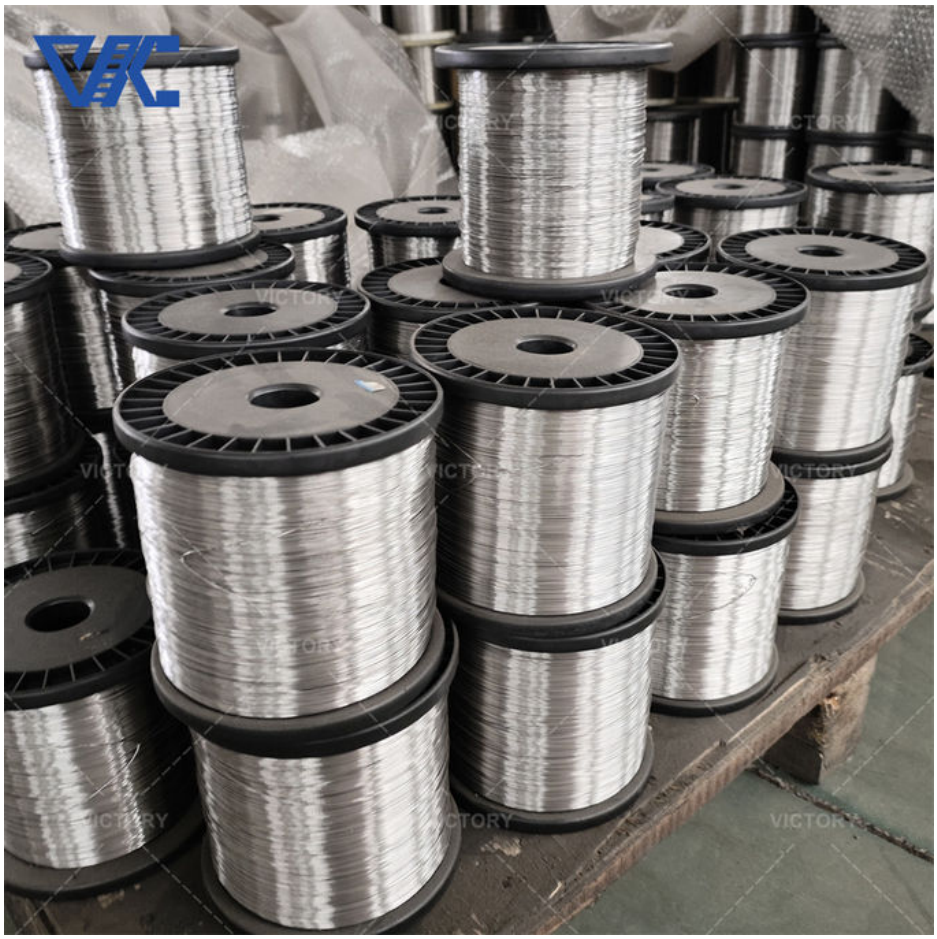
Inconel series

Steel grade	Inconel 600	Inconel 601	Inconel 625	Inconel 718	Inconel 725	Inconel X-750
Corresponding brand	N06600/2.4816/1Cr15Ni75Fe8/NS312/CY40	N06601/2.4851/1Cr23Ni60Fe13Al/NS313	N06625/2.4856/0Cr20Ni65Mo10bN4/NS336	N07718/2.4668/GH4169	N07725	N07750/2.4669/GH4145
Chemical composition%						
C≤	0.150	0.100	0.100	0.080	0.030	0.080
Mn≤	1.00	1.00	0.50	0.35	0.35	1.00
P≤	/	/	0.015	0.015	0.015	/
S≤	0.015	0.015	0.015	0.015	0.010	0.010
Si≤	0.50	0.50	0.50	0.35	0.20	0.50
Cr≤	14.0-17.0	21.0-25.0	20.0-23.0	17.0-21.0	19.0-22.5	14.0-17.0
Ni≤	≥72.0	58.0-63.0	≥58.0	55.0-59.0	55.0-59.0	≥70
Mo	/	/	8.0-10.0	2.8-3.3	7.0-9.5	/
Cu	≤0.50	≤1.50	/	≤0.30	/	≤0.50
N	/	/	/		/	/
Nb	/	/	3.15-4.15	4.75-5.50	2.75-4.00	0.70-1.20
other	Fe:6.0-10.0	Al:1.0-1.7	Co:≤1.0Ai:≤0.40Tr:0.40Fe:≤5.0	Al:0.20-0.80Ti:0.65-1.15B≤0.006	Tr:1.0-1.7Al≤0.35	Co:≤1.0 Al:0.4-1.0Tr:0.25-2.75Fe:5.0-9.0

Customize size as below

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



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