



Nickel-Chromium-Columbium (Niobium)-Molybdenum nickel alloy inconel 718 wire rod bar for aerospace

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: ISO9001 ROHS
- Model Number: Inconel 718
- Minimum Order Quantity: 30 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: Nickel-Chromium-Columbium (Niobium)-Molybdenum Nickel Alloy Inconel 718 Wire Rod Bar For Aerospace
- 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: 0.25-100mm



More Images



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Product Description

Inconel 718 alloy

Inconel 718 is an age-hardenable Nickel-Chromium-Columbium (Niobium)-Molybdenum alloy with high strength, corrosion-resistance, and good fabrication characteristics. Inconel 718 has high tensile, yield, and creep-rupture properties at high temperatures and can operate at cryogenic temperatures up to 1200°F (650°C).

Inconel 718 rod character:

Mechanical Properties:

High Strength: Retains strength at elevated temperatures, making it suitable for high-stress applications.

Fatigue Resistance: Excellent fatigue properties, which is crucial for components subjected to cyclic loading.

Corrosion Resistance:

Exceptional resistance to oxidation and corrosion, particularly in harsh environments like those found in aerospace and chemical processing.

Fabricability:

Can be easily machined, welded, and formed, allowing for the production of complex shapes and components.

Heat Treatment:

Can be heat-treated to enhance its mechanical properties, particularly yield strength and hardness.

Common Applications:

Aerospace: Used in aircraft engine components, structural parts, and landing gear.

Oil and Gas: Employed in downhole tools, valves, and tubing that require high strength and corrosion resistance.

Nuclear: Utilized in components that must withstand radiation and extreme conditions.

Industrial Equipment: Used in various machinery and components operating under high stresses and corrosive environments.

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/cm ³	0.296 lb/in ³
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:≤1.0Al:≤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:≤1.0Al: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
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Oem service:

Welcome customized size

We are experience factory for OEM&ODM service





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