



Polished black surface OD 50mm 70mm 80mm 120mm nickel alloy bar inconel 718 round bar for aircraft engines

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

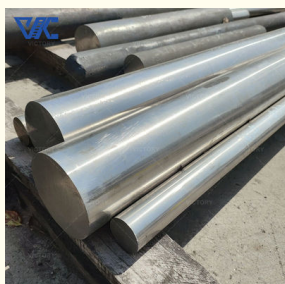


Product Specification

- Name: Polished Black Surface OD 50mm 70mm 80mm 120mm Nickel Alloy Bar Inconel 718 Round Bar For Aircraft Engines
- 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: 50mm, 70mm, 80mm, 120mm



More Images



Product Description

Inconel 718 alloy

INCONEL alloy 718 has excellent corrosion resistance to many media. This resistance, which is similar to that of other nickel-chromium alloys, is a function of its composition. Nickel contributes to corrosion resistance in many inorganic and organic, other than strongly oxidizing, compounds throughout wide ranges of acidity and alkalinity. It also is useful in combating chloride-ion stress-corrosion cracking.

The key mechanical properties and characteristics that make Inconel 718 a high-performance alloy

Inconel 718 is recognized as a high-performance alloy due to its exceptional mechanical properties and characteristics. Here are the key properties that contribute to its performance:

Key Mechanical Properties

High Yield Strength:

Retains high yield strength (up to 1,200 MPa or more) at both room and elevated temperatures, making it suitable for high-stress applications.

Tensile Strength:

Exhibits excellent tensile strength (up to 1,400 MPa) which is critical for components subjected to heavy loads.

Fatigue Resistance:

Outstanding resistance to fatigue failure, allowing it to withstand cyclic loading without significant degradation over time.

Ductility:

Good ductility ensures that the material can deform without fracturing, which is essential for applications that require resilience under stress.

Impact Toughness:

Maintains toughness even at low temperatures, making it suitable for applications where impact resistance is critical.

Creep Resistance:

Excellent resistance to creep deformation at elevated temperatures, which is crucial for components operating in high-temperature 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

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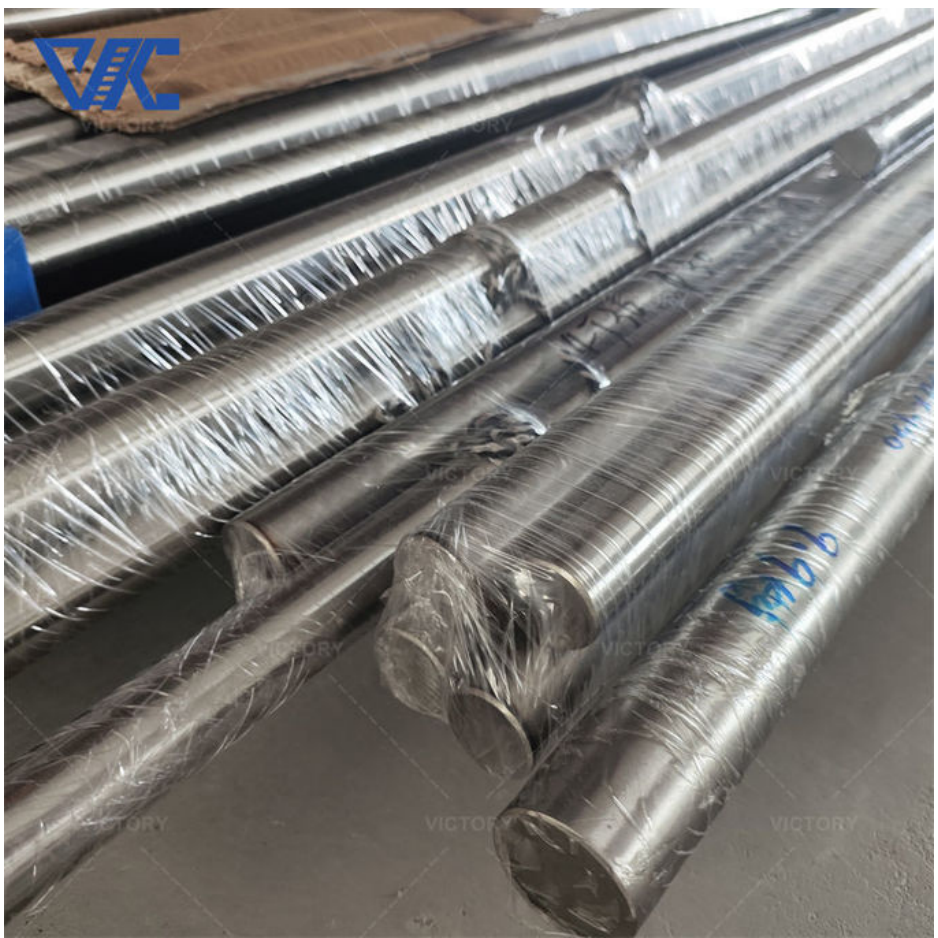
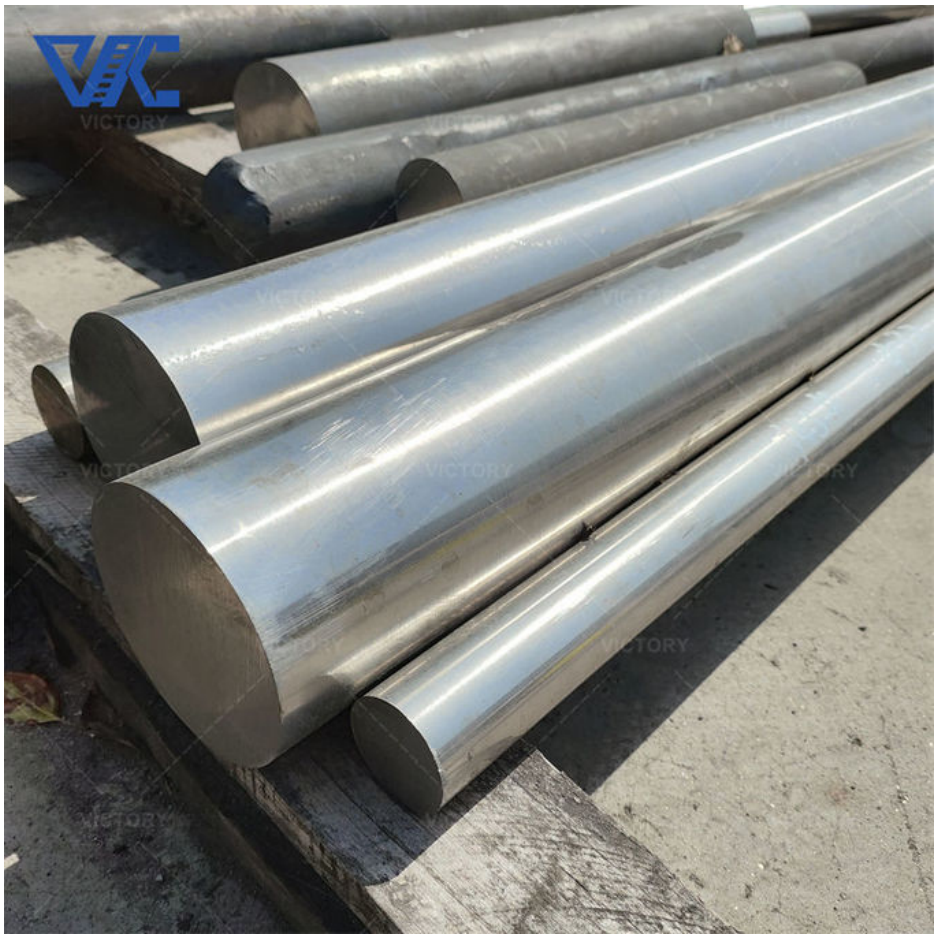
Shape	Size(mm)
Wire	0.5-7.5
Rod/Bar	8.0-200
Strip	(0.5-2.5)*(5-180)
Tube	custom made
Plate	custom made

contact us
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Oem service:

Welcome customized size

We are experience factory for OEM&ODM service





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