Up To 1100°C High Temperature Industrial Alloy Material Nickel Alloy 600 Inconel 600 Pipe

Our Product Introduction

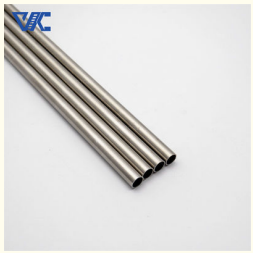
Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: ISO9001 ROHS
- Model Number: Inconel 600
- Minimum Order Quantity: 30 Kg
- Price: Negotiable
- Packaging Details: Inconel 600 rod packed in 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: Up To 1100°C High Temperature Industrial Alloy Material Nickel Alloy 600 Inconel 600 Pipe
- Material: Nickel Chromium Iron
- Ni (Min): 72%
- Density: 8.47 G/cm3
- Melting Point: 1,370-1,425°C
- Elongation (≥ %): 30 %
- Thermal Conductivity: 15.9 W/m·K
- Finishing: Bright,Oxided
- Application: Construction, Industry Oil, Piping Systems
- Yield Strength: 240 MPa
- Tensile Strength: 550 MPa
- Hardness: ≤ 160 HB
- Standard: ASTM, ASME
- Size: 6~508mm

More Images



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Product Description

The standard of inconel 600 tube

Chemical Composition:

ASTM B166 - Standard Specification for Nickel-Chromium-Iron Alloys (UNS N06600, NiCr15Fe, Alloy 600) and Nickel-Chromium-Cobalt-Molybdenum Alloy (UNS N06617, NiCr22Co12Mo) Seamless Pipe and Tube

Mechanical Properties:

ASTM B163 - Standard Specification for Seamless Nickel and Nickel Alloy Condenser and Heat-Exchanger Tubes
Mechanical Properties:
Tensile Strength: 585 MPa min
Yield Strength: 275 MPa min
Elongation: 30% min

Additionally, Inconel 600 tubing may also be manufactured and supplied according to other industry specifications, such as:
ASME SB-163 - Seamless Nickel and Nickel Alloy Condenser and Heat Exchanger Tubes
NACE MR0175 / ISO 15156 - Materials for use in H2S-containing environments in oil and gas production

Is Inconel stronger than stainless steel?

in general, Inconel alloys tend to be stronger than stainless steel alloys.

Tensile Strength:
Inconel alloys like Inconel 600 and Inconel 718 have higher ultimate tensile strengths compared to common stainless steel grades like 304 or 316.
For example, Inconel 718 can have an ultimate tensile strength of around 1,500 MPa, while 304 stainless steel is around 505 MPa.

Yield Strength:
Inconel alloys also exhibit higher yield strengths than many stainless steels.
Inconel 718 has a yield strength of around 1,035 MPa, while 304 stainless steel is around 215 MPa.

High Temperature Strength:
Inconel alloys maintain their strength better than stainless steels at elevated temperatures, making them suitable for high-temperature applications.

Corrosion Resistance:
While stainless steels have good corrosion resistance, Inconel alloys can offer even better resistance to corrosion in harsh environments.

The production process of inconel 600 tube

Melting and Casting:
Inconel 600 is produced by melting the raw materials, which include nickel, chromium, iron, and small amounts of other alloying elements.
The molten metal is then cast into ingots or billets.
Hot Working:
The cast ingots or billets are heated to high temperatures (typically around 1100-1200°C) and then subjected to hot forming processes, such as hot rolling or hot extrusion.
This hot working step reduces the cross-sectional area and increases the length of the material, creating a solid, seamless tube shell.
Cold Working:
The hot-worked tube shell is further processed through cold working techniques, such as cold drawing or cold pilger rolling.
This cold working step helps to further reduce the tube's diameter and wall thickness, while also improving the mechanical properties of the material.
Heat Treatment:
After the cold working, the Inconel 600 tube undergoes a specific heat treatment process, which typically involves solution annealing.
The solution annealing helps to homogenize the microstructure, relieve internal stresses, and enhance the corrosion resistance of the Inconel 600 tubing.
Inspection and Quality Control:
The final Inconel 600 tubes are inspected for dimensional accuracy, surface quality, and adherence to material specifications.
Various non-destructive testing techniques, such as ultrasonic testing or eddy current testing, may be employed to ensure the integrity of the tubing.
Surface Finishing:
Depending on the application, the Inconel 600 tubes may undergo additional surface finishing processes, such as pickling, passivation, or electropolishing, to further enhance their corrosion resistance and appearance.

Parameter:

Chemical Properties of Inconel 600

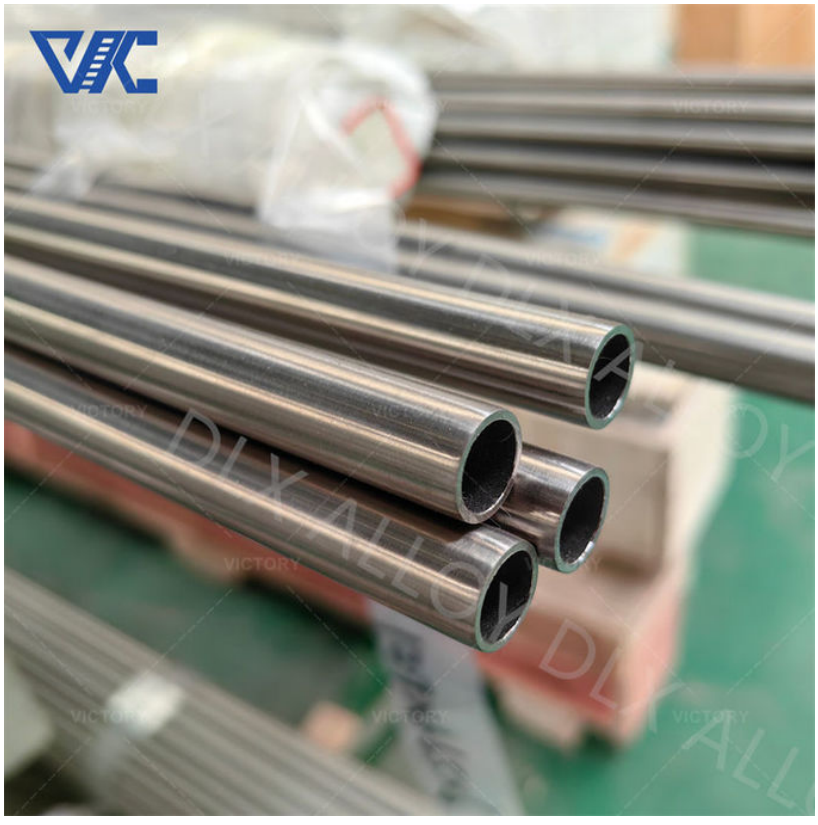
C	Cr	Ni+Co	Al	Ti	Fe	Nb+Ta	Mn	Si	P	S
≤0.15	14.0 17.0	≥72	≤0.35	≤0.50	6.0 10.0	≤1.0	≤1.0	≤0.5	≤0.04	≤0.015

ITEM	θ/℃	TENSIE STRENGTH				HBS
		σb/MPa	σP0.2/MPa	δ5/%	φ/%	
BAR/ROD	20	≥585	≥240	≥30	-	134 217
RING	20	≥520	≥205	≥35	-	≥187
HOT ROLL PLATE	20	≥550	≥240	≥35	≥40	-
	900	≥95	≥45	≥40	≥50	-
COLD ROLLED SHEET	20	≥550	≥240	≥30	-	-
	900	≥90	≥40	≥60	-	-
COLD ROLLED SHEET	20	≥550	≥200	≥30	-	-
STRIP	20	≥550	≥240	≥30	-	-
WIRE	20				-	HV≤151

Shape	Size(mm)
Wlre	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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