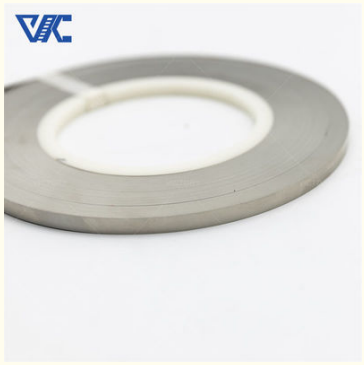
Hot / Cold Rolled Annealed Nickel Chrome Iron Alloy Inconel 600 Strip Used In Heat Treating Industry

Our Product Introduction

Basic Information

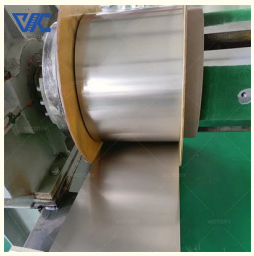
- Place of Origin: China
- Brand Name: Victory
- Certification: ISO9001 ROHS
- Model Number: Inconel 600
- Minimum Order Quantity: 30 Kg
- Price: Negotiable
- Packaging Details: Inconel 600 rod packed in Spool Carton box, Coil package with polybag,then in woodencase
- Delivery Time: 20~40 Days
- Payment Terms: L/C, T/T, Western Union, MoneyGram
- Supply Ability: 300 tons per month



Product Specification

- Name: Hot / Cold Rolled Annealed Nickel Chrome Iron Alloy Inconel 600 Strip Used In Heat Treating Industry
- 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: 0~500mm

More Images



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Product Description

Inconel 600 sheet has the following key characteristics?

Thermal Stability:
Inconel 600 exhibits excellent thermal stability, with minimal microstructural changes or recrystallization at high temperatures. This ensures consistent performance and reliability of Inconel 600 components over long periods of high-temperature service.
Thermal Expansion:

Inconel 600 has a relatively low coefficient of thermal expansion, which helps minimize issues like thermal stresses and distortion during high-temperature operation.
Weldability:
Inconel 600 has good weldability, allowing for convenient fabrication and joining of components through welding processes.
Machinability:
Inconel 600 has moderately good machinability, although it may require the use of carbide tools and careful machining techniques.

Inconel 600 sheet components are typically fabricated using the following manufacturing processes:?

Cutting and Shearing:
Inconel 600 sheets are cut to the desired size and shape using processes like waterjet cutting, laser cutting, or mechanical shearing.
These techniques allow for precise and efficient cutting of the material.
Forming:
Inconel 600 sheets can be formed into various shapes and geometries using processes like press braking, stamping, and deep drawing.
The high strength and formability of Inconel 600 enable the creation of complex component shapes.
Welding:
Inconel 600 sheet components are often joined using welding techniques, such as gas tungsten arc welding (GTAW), gas metal arc welding (GMAW), or laser welding.
Careful control of welding parameters is essential to maintain the material's corrosion resistance and high-temperature properties.
Machining:
Some Inconel 600 sheet components may require additional machining operations, such as drilling, milling, or turning, to achieve the desired final dimensions and features.
Inconel 600's moderate machinability requires the use of carbide tooling and specialized machining techniques to ensure a good surface finish and dimensional accuracy.
Heat Treatment:
Depending on the application, Inconel 600 sheet components may undergo heat treatment processes, such as annealing or solution annealing, to optimize their mechanical properties and microstructure.
These heat treatments help maintain the material's high-temperature strength and corrosion resistance.
Finishing:
After fabrication, Inconel 600 sheet components may undergo surface finishing operations, such as pickling, passivation, or polishing, to remove any surface defects or contaminants and improve the appearance and corrosion resistance.

Advantages of using Inconel 600 for sheet components?

High-Temperature Strength and Stability:
Inconel 600 maintains excellent mechanical properties, including tensile strength, creep resistance, and fatigue life, at high temperatures up to around 1100°C.
This makes it suitable for applications that involve exposure to elevated temperatures.
Corrosion Resistance:
Inconel 600 exhibits superior resistance to a wide range of corrosive media, including acids, alkalis, and salts, even at high temperatures.
This corrosion resistance helps maintain the integrity of Inconel 600 components in harsh environments.
Oxidation Resistance:
The chromium in Inconel 600 forms a protective oxide layer that resists high-temperature oxidation, preventing further degradation of the material.
This oxidation resistance is crucial in applications with exposure to oxidizing atmospheres.
Thermal Expansion Compatibility:
Inconel 600 has a relatively low coefficient of thermal expansion, which helps minimize issues like thermal stresses and distortion during high-temperature operation.
This compatibility with thermal expansion can be beneficial in applications with significant temperature fluctuations.
Weldability:
Inconel 600 has good weldability, allowing for convenient fabrication and joining of components through welding processes.

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/°C	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
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Oem service:

Welcome customized size
We are experience factory for OEM&ODM service

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