



Tensile 1300~1500 Mpa Nickel Based Alloy ASTM B166 Inconel 600 Spring Wire

Our Product Introduction

for more products please visit us on victory-alloy.com

Basic Information

- Place of Origin: China
- Brand Name: Victory
- Certification: ISO9001 ROHS
- Model Number: Inconel 600
- Minimum Order Quantity: 10 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: Tensile 1300~1500 Mpa Nickel Based Alloy ASTM B166 Inconel 600 Spring Wire
- 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: 6~500mm



More Images



Product Description

Inconel 600 wire for spring

Properties of Inconel 600 Relevant for Spring Applications:

High Strength-to-Weight Ratio:

Inconel 600 has a tensile strength of 585-745 MPa, allowing for compact, lightweight spring designs. The relatively low density of 8.47 g/cm³ helps minimize the weight of Inconel 600 springs.

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Excellent Fatigue Resistance:

The microstructural stability of Inconel 600 gives it outstanding fatigue life, withstanding millions of cycles. This is crucial for springs that undergo repeated flexing and loading.

Corrosion Resistance:

Inconel 600's high chromium content (14-17%) provides excellent resistance to corrosion and oxidation. This makes Inconel 600 springs suitable for harsh, corrosive environments.

High-Temperature Capability:

Inconel 600 retains its strength and elasticity at temperatures up to 1100°C. This allows its use in high-heat applications like engine valves and furnace components.

Recommend other nickel-based alloys that are commonly used for spring manufacturing**Inconel 718:**

Another nickel-chromium superalloy, similar to Inconel 600 but with higher strength. Commonly used for aerospace engine springs, fasteners, and other high-strength applications.

Hastelloy C-276:

A nickel-molybdenum-chromium alloy with excellent corrosion resistance. Often used for chemical processing equipment springs and other corrosive environment applications.

Nimonic 90:

A nickel-chromium-cobalt-titanium alloy with high-temperature strength and creep resistance. Ideal for valve springs and other engine components operating at elevated temperatures.

MP35N:

A nickel-cobalt-chromium-molybdenum alloy with extremely high strength and fatigue life. Commonly used for medical device springs, aerospace, and other highly demanding applications.

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	TENSILE STRENGTH				HBS
		σ _b /MPa	σ _{P0.2} /MPa	δ ₅ /%	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)
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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