



Inconel® 702 (Alloy 702), UNS N07702

Shaped, Flat, Square, Round, Fine Wire, Plated and Bare Wire
AMS 5550

Inconel® 702 or Alloy 702 Wire Description

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Alloy 702 is a nickel-chromium alloy with an aluminum addition. This alloy is resistant to oxidation at temperatures up to 2400°F (1316°C). The alloy has good strength at high temperatures. Age hardening improves the strength up to 1500°F (816°C)

Applications

Furnace components

Chemistry Typical

Nickel + Cobalt: Balance

Chromium: 14.00-17.00

Aluminum: 2.75-3.75

Titanium: 0.25-1.00

Iron: 2.00 max

Cobalt: 1.00 max

Manganese: 1.00 max

Carbon: 0.10 max

Silicon: 0.70 max

Sulfur: 0.010 max

Copper: 0.50 max

Physical Properties

Density: 0.304 lb/in³, 8.43 g/cm³

Modulus of Elasticity: KSI (MPa)

31.5 x 10³ (215 x 10³) in tension

Melting Point: 2540°F (1394°C):

Mechanical Properties at Room Temperature

Properties: Annealed Typical

Ultimate Tensile Strength: 130 KSI (893 MPa)

Yield Strength: 95 KSI (655 MPa)

Elongation: 35%

Hardness: Rc 25

Properties: Heat Treated

Alloy 702 can be cold rolled to achieve the temper properties required by specific customers and/or manufacturing requirements. Contact Ulbrich Wire for details.

Additional Properties

Corrosion Resistance

Refer to NACE (National Association of Corrosion Engineers) for recommendations.

Standard Wire Finishes

Extra Clean: (XC) Extra clean is also referred to as “bright annealed” or “bright annealed and cold rolled”

Grease (round wire only): Drawn in a heavy grease produces an “Ultra bright” finish for decorative applications

Soap (round wire only): Soap is used as a lubricant in the drawing process and is not removed. It acts as a lubricant during customer part forming operation. A soap finish is available in tempered products.

Plated: Many plating options are available.

*Special finishes are available: Contact Ulbrich Wire Sales with special finish and plating

requests.

Forms

Continuous Coils

Cut to lengths

Precision cutting

Heat Treatment

Alloy 702 is can be hardened by cold working and by heat treatment.

Welding

For best results refer to: SSINA's "Welding of Stainless Steels and Other Joining Methods".

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