

Inconel 600 Sheet and Plate — Technical Data Sheet

UNS N06600 hot-rolled and cold-rolled plate, sheet, and strip to ASTM B168 — minimum room-temperature values per the governing standard.

Chemical Composition (ASTM B168)

Element	Content
Nickel (Ni)	72.0% min.
Chromium (Cr)	14.0–17.0%
Iron (Fe)	6.0–10.0%
Carbon (C)	0.15% max.
Manganese (Mn)	1.00% max.
Silicon (Si)	0.50% max.
Sulfur (S)	0.015% max.
Copper (Cu)	0.50% max.

Minimum Room-Temperature Mechanical Properties

Product Form	Standard	Condition	Tensile Strength	Yield Strength, 0.2% Offset	Elongation
Hot-rolled plate	ASTM B168	Annealed	≥ 550 MPa (80 ksi)	≥ 240 MPa (35 ksi)	≥ 30%
Hot-rolled plate	ASTM B168	As-rolled	≥ 585 MPa (85 ksi)	≥ 240 MPa (35 ksi)	≥ 30%
Sheet and strip	ASTM B168	Annealed	≥ 550 MPa (80 ksi)	≥ 240 MPa (35 ksi)	≥ 30%

Physical Properties (Approx.)

Property	Value
Density	8.47 g/cm³ (0.306 lb/in³)
Melting Range	1370–1413 °C (2500–2575 °F)
Elastic Modulus	214 GPa (31.0 × 10³ ksi)
Thermal Conductivity	14.8 W/m·°C at 20 °C
Expansion Coefficient	13.3 µm/m·°C (20–100 °C)
Alloy Type	Nickel-chromium-iron, solid-solution strengthened

Standards and Designations

Standard / Designation	Product / Application
ASTM B168 / ASME SB168	Plate, sheet, and strip
ASTM B906	General requirements for nickel alloy flat-rolled product
SAE AMS 5540	Sheet, strip, and plate
DIN 17750	Nickel alloy plate, sheet, and strip, W.Nr. 2.4816
ISO 6208	Nickel and nickel alloy plate, sheet, and strip
UNS N06600 · W.Nr. 2.4816 · NiCr15Fe	Designations

Typical Supply Dimensions

Product Form	Typical Supply Range	Length
Hot-rolled plate	4.8–100 mm thick, widths to 2500 mm	Cut to length and width
Cold-rolled sheet	0.46–6.35 mm thick, widths to 1500 mm	Cut to length and width
Strip and coil	0.13–6.35 mm thick, slit to width	Coil or custom lengths
Cut blanks	Any stocked gauge	To customer drawing

Supply Conditions and Finishes

Surface Condition	Typical Use
Annealed & Pickled	Standard delivered condition for forming and fabrication
Bright Annealed	Smooth, scale-free surface for visible and clean service
Mill Finish	As-rolled surface for machining and further processing

Values are for reference; the mill test certificate prevails for final acceptance. Dimensions, conditions, and surface finishes are confirmed at quotation.

Southerly Alloy — nickel alloy bar, rod, pipe, tube, plate and fittings · www.southerly-alloy.com · Values are for reference; the mill test certificate prevails for final acceptance.

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