

Alloy 601 **High performance alloy**

Trade name
Inconel 601
Nickelvac 601
Ferrochronin 601
Nicrofer 601

UNS
N06601

DIN
W2.4851

EN
NiCr23Fe15

Chemical Composition %

Cr	Ni	Fe	Cu	C	Mn	Si	S	Al
21-25	58-63	Balance	1max	0.1max	1max	0.5max	0.015max	1-1.7

Recommended Welding Consumables

Wire ER NiCrFe-11
Rod E NiCrFe-11

Form	Smls Pipe/Tub	Weded Pipe	Welded Tube	Fittings	Plate	Bar	Forgings
Standard	ASTM B622	ASTM B 619	ASTM B 626	ASTM B 366	ASTM B333	ASTM B335	ASTM B564

Properties

Very good resistance to heat and corrosion
Good mechanical properties at elevated temperatures.

Applications

Chemical Processing
Furnace Parts
Gas turbine components

Physical Properties

Density: 0.293 lb/in³, 8.11 g/cm³
Electrical Resistivity: ohm-cir-mil/ft, (micro-ohms-m):
At 70 °F (20 °C): 710 (1.180)
Specific Heat: BTU/lb-°F (J/kg-°C):
At 70 °F (20 °C): 0.107 (448)
Thermal Conductivity: BTU-in/hr-ft²-°F (W/m•K) 70 °F (20 °C): 78 (11.2)
Modulus of Elasticity: KDSI (MPa)
29.95 x 10³ (20.65 x 10³) in tension
Melting Range: 2480 - 2571 °F (1360 - 1411 °C)
Typical Properties – annealed
Ultimate Tensile Strength: 80 KSI min (552 MPa min)
Yield Strength: 30 KSI min (207 MPa min)
Elongation: 35% min

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