

Haynes® Alloy 214

UNS N07214
W.Nr 2.4646

Haynes® Alloy 214 is a nickel-chromium-aluminum-iron alloy with excellent high temperature corrosion and oxidation resistance at and above 955°C (1750°F). H214 is best suited for high temperature, low stress environments. Haynes® Alloy 214 is sold in the solution heat treated condition. At temperatures above 1750°F, an Al₂O₃ type oxide scale develops, providing excellent resistance to carburization, nitriding and corrosion in chlorine-bearing oxidizing environments. Applications include: honeycomb seals, flame hoods, burners, mesh belts, catalytic converters, Chlorine contaminated incinerator systems, and other static oxidation - limited parts
Industries supplied include: Aerospace, Automotive, Industrial Heating, Medical Waste Disposal, and Land-Based Gas Turbines.

Nominal Composition

	C	Mn	Si	S	Cr	Co	Mo	W	Ti	Al	B	Fe	Y	Ni
min					15.00					4.00		2.00	0.002	Remainder
max	0.15	1.00	0.50	0.015	17.00	2.00	1.00	1.00	0.50	5.00	0.015	6.00	0.004	

Physical Properties

	At 70°F	At 20°C
Density	0.293 lb/in ³	8.1 g/cm ³
Modulus of Elasticity (E)	31.5 x 10 ³ ksi	218 GPa
Modulus of Rigidity (G)	12 x 10 ³ ksi	84 GPa
Coefficient of Expansion	7.4 microinches/in.-°F (70-1000°F)	13 μm/m-°C (20-538°C)
Electrical Resistivity	55 μ ohm.in	140 μ ohm.cm
Thermal Conductivity	83 Btu-in./ft. ² hr.-°F	12 W/m-K

Applicable Specifications

Strip and Foil	B50A913, B50TF219, PS-6073, MTS 1379-1, MSRR7238, PWA 1130, DMD 0495
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Typical Mechanical Properties

Condition	Heat Treatment	Tensile Strength	Suggested Operating Conditions
Annealed	Per specifications	115-160 ksi (790-1100 MPa)	-330°F to 2400°F (-200°C to 1315°C)

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Elgiloy Specialty Metals - Strip
Products

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