

L-605 / Haynes 25®

UNS R30605
W.Nr 2.4964 / 2.4967

Haynes® 25/L605 is a nonmagnetic, Cobalt-Nickel-Chromium-Tungsten alloy that combines excellent high temperature strength with good resistance to oxidization and carburization in environments up to 980°C (1795°F) for long exposures. It also has excellent resistance to sulphidation. Haynes® 25/L605 responds very well to cold working.

Applications include: Combustor liners, furnace liners, gas turbine rotors, nozzle diaphragm valves, springs, heart valves
Industries supplied include: Aerospace, Land-Based Turbines, Power Generation, Electronics, and Medical.

Nominal Composition

	C	Mn	Si	P	S	Cr	Ni	W	Fe	Co			
min	0.05	1.00				19.00	9.00	14.00					
max	0.15	2.00	0.40	0.040	0.030	21.00	11.00	16.00	3.00	Balance			

Physical Properties

	At 70°F	At 20°C
Density	0.33 lb/in ³	9.1 g/cm ³
Modulus of Elasticity (E)	32.6 x 10 ³ ksi	225 GPa
Modulus of Rigidity (G)	14.2 x 10 ³ ksi	98 GPa
Coefficient of Expansion	6.8 microinches/in.-°F (70-600°F)	12 µm/m-°C (20-538°C)
Electrical Resistivity	34.9 µ ohm.in	89 µ ohm.cm
Thermal Conductivity	65 Btu-in./ft. ² hr.-°F	9.4 W/m-K

Applicable Specifications

Strip and Foil	AMS 5537, Rolls Royce MSRR 7053, NACE MR0175/ISO 15156
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Typical Mechanical Properties

Condition	Heat Treatment	Tensile Strength	Suggested Operating Conditions
Annealed		130 ksi (896 MPa) Min.	

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