



Elgiloy Specialty Metals Hampshire Mill

Alloy 304L Stainless Steel

UNS: S30403
EN-DIN: 1.4306

Industries supplied include: Process equipment in mining, chemical, cryogenic, food, dairy, and pharmaceutical industries. 304 grade stainless has excellent welding and formability characteristics and is one of the most utilized stainless steels. 304L is an extra low carbon grade with a 0.03% max carbon content that eliminates carbide precipitation due to welding.

Nominal Composition

	C	Mn	P	S	Si	Cr	Ni	N	Fe		
min	-	-	-	-	-	17.5	8.0	-	-		
max	.030	2.0	0.045	0.030	0.75	19.5	12.0	0.10	BAL		

Physical Properties

	At 70°F	At 20°C
Density	0.29 lb./in ³	8.03 g/cm ³
Modulus of Elasticity (E)	28.0 x 10 ³ ksi	193 x 10 ³ MPa
Coefficient of Expansion	9.4 x 10 ⁻⁶ microinches/in.-°F (70-600°F)	16.9 μm/m-°C (20-300°C)
Electrical Resistivity	28.4 μ ohm.in	72 μ ohm.cm
Thermal Conductivity	9.4 Btu-in./ft. ² hr.-°F	16.2 W/m-K

Applicable Specifications

AMS 5513, ASTM A313, ASTM A240, ASTM A580, ASTM A 666, AMS 5511

Typical Mechanical Properties – Typical Room Temperature Mechanical Properties

Condition	Tensile Strength (UTS)	0.2% YS	Elongation% in 2" (50.8 mm)	Hardness Rockwell
Annealed	95 ksi (655 MPa)	40 ksi (276 MPa)	55	82 HRBW

Typical mechanical properties are based on AK source, ASTM A240

Tempered Properties available upon request

For further information email:
hampinfo@elgiloy.com or
call: (847) 453-0500

Elgiloy Specialty Metals
Hampshire Mill
One Hawk Road
Hampshire, IL 60140 USA

www.esmhampshire.com

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