



Elgiloy Specialty Metals Hampshire Mill

Alloy 304 Stainless Steel

UNS: S30400
EN-DIN: 1.4301

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.

Nominal Composition

	C	Mn	P	S	Si	Cr	Ni	N	Fe		
min	-	-	-	-	-	17.5	8.0	-	-		
max	.07	2.0	0.045	0.030	0.75	19.5	10.5	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

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)	42 ksi (290 MPa)	55	84 HRBW

Typical mechanical properties are based on ASTM A240

Tempered Properties available upon request

For further information email:
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