Combined Metals Company, LLC
Data Sheet

Alloy 347 Stainless Steel

UNS: S34700
EN-DIN: 1.4550

347 alloys are stabilized stainless steels which offer as their main advantage an excellent resistance to intergranular corrosion following exposure to temperatures in the chromium carbide precipitation range from 800 to 1500°F (427 to 816°C). 347 alloys are stabilized by the addition of columbium.

Nominal Composition

	C	Mn	P	S	Si	Cr	Ni	Nb (Cb)	N	Fe	
min	-	-	-	-	-	17.0	9.0	10xC	-	-	
max	.08	2.0	0.045	0.030	1.00	19.0	12.0	1.00	0.10	BAL	

Physical Properties

	At 70°F	At 20°C
Density	0.288 lb./in^3	7.96 g/cm^3
Modulus of Elasticity (E)	28.0 x 10^3 ksi	193 x 10^{3}MPa
Coefficient of Expansion	9.2 x 10^{-6} microinches/in.-°F (70-600°F)	16.6 µm/m-°C (20-300°C)
Electrical Resistivity	28.4 µ ohm.in	72 µ ohm.cm
Thermal Conductivity	9.5 Btu-in./ft.^{2}hr.-°F	16.3 W/m-K

Applicable Specifications

AMS 5512, ASTM A269, ASTM A240, ASTM A479, AMS 5680

Typical Mechanical Properties – Typical Room Temperature Mechanical Properties

Condition	Tensile Strength (UTS)	0.2% YS	Elongation% in 2” (50.8 mm)	Hardness Rockwell
Annealed	93 ksi (640 MPa)	37 ksi (250 MPa)	45	84 HRBW

Typical mechanical properties are based on ATI source, ASTM A240

For further information:
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