

1350

ALUMINUM ALLOY TECHNICAL SPECIFICATION SHEET

GENERAL: Having a minimum of 99.50% aluminum, this non-heat treatable alloy is generally the alloy of choice for electrical conductors. This alloy has excellent formability and corrosion resistance. Applications are mainly electrical conductor pins, rods, and rivets. This alloy can also be found in various wire forms and clips where strength is not as important as economics.

CHEMICAL COMPOSITION¹: Compositions in % max, unless otherwise specified.

Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Others		Al (min)
									Each	Total	
0.10	0.40	0.05	0.01	-	0.01	-	0.05	-	0.03	0.10	Balance

Note: Vanadium plus titanium 0.02% max; boron 0.05% max; gallium 0.03% max.

¹ Complying with Aluminum Association, ASTM and Federal Specifications

MECHANICAL PROPERTIES AND CHARACTERISTICS

Although Beneke Wire Co makes every effort to provide you with accurate values in this section, when using for design purposes please consult with the Beneke technical staff or refer to any relevant standards and/or specifications,

Temper	Max Diameter ⁵ (inches)	Ultimate Tensile		Typical Shear ³ (ksi)	Typical % El ³ (in 10")	Resistance to Corrosion		Formability ²	Machinability ²
		Specification ¹ (ksi)	Typical ⁴ (ksi)			General ²	SCC ²		
1350-0	.715	14.0 Max	10.5	8	23	A	A	A	E
-H13	.650	-	16.0	9	-	A	A	A	D
-H14	.650	15.0 Min	19.0	10	-	A	A	A	D
-H18	.455	19.0 Min	25.5	15	1.5	A	A	B	D

¹ Complying with Aluminum Association, ASTM and Federal Specifications

² Ratings A-E are relative ratings in decreasing order of merit

³ Industry averages as published by Aluminum Association. Should not be used for design purposes

⁴ Computed Beneke averages. Should not be used for design purposes

⁵ Larger sizes may be available subject to inquiry

FINISHES: The 1350 alloy will normally be supplied in a standard finish. There will be no appreciable gain in appearance or formability with special finishes. For applications that must have clean surface, we offer the following:

- 1) **Bright Finish** - Clean, chrome-like finish comparable to stainless or chrome finish on steel; improves cosmetic appearance of aluminum wire.