



# HSM Wire International, Inc

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## Copper Clad Aluminum AWG 14- 30

Size AWG	Diameter (inches) Nominal	Area (sq inches) Nominal	Feet per Pound		Pounds per 1000 ft		Resistance (ohms per 1000 feet @ 20°C)	
			Copper	10% Cu/AL	Copper	10% Cu/AL	Copper	10% Cu/AL
14	0.0641	0.00323	80.4	215	12.4	4.64	2.52	3.91
15	0.0571	0.00256	101	270	9.87	3.69	3.18	4.93
16	0.0508	0.00203	128	342	7.81	2.92	4.02	6.23
17	0.0453	0.00161	161	430	6.21	2.32	5.05	7.83
18	0.0403	0.00128	203	542	4.92	1.84	6.39	9.9
19	0.0359	0.00100	256	684	3.90	1.46	8.05	12.5
20	0.0320	0.000804	323	862	3.10	1.16	10.1	15.7
21	0.0285	0.000636	407	1087	2.46	0.920	12.3	19.8
22	0.0253	0.000503	516	1378	1.94	0.726	16.2	25.1
23	0.0226	0.000401	647	1728	1.55	0.580	20.3	31.5
24	0.0201	0.000317	818	2184	1.22	0.456	25.7	39.8
25	0.0179	0.000252	1030	2750	0.970	0.363	32.4	50.2
26	0.0159	0.000199	1310	3498	0.765	0.286	41.0	63.6
27	0.0142	0.000158	1640	4378	0.610	0.228	51.4	79.7
28	0.0126	0.000125	2080	5554	0.481	0.180	65.3	101
29	0.0113	0.000100	2590	6915	0.387	0.145	81.2	126
30	0.0100	0.0000785	3300	8811	0.303	0.113	104	161

To be used as a guide only.

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Rev 1.06.01.13

Copper Clad Aluminum is a composite wire consisting of an aluminum core clad with ETP Copper.

### Typical Physical Properties

A.C. conductivity ≥ 5 MHz --- Equal to Solid Copper

D.C. conductivity = 65% IACS

Density = 1199 lbs / cubic inch

% Copper by volume = 10% ± 2%

% Copper by weight = 26.8% ± 2%

Coefficient of thermal expansion = 22.9 ppm / C°

Tensile Strength - Annealed = 16,500 psi

Tensile Strength - Hard = 23,5000 psi

Yield Strength - Annealed = 12,000 psi

Yield Strength - Hard = 21,6000 psi

% Elongation - Annealed = 15%

% Elongation - Hard = 2.5%

