



HSM Wire International, Inc

Ph: 330-244-8501 Fax: 330-244-8561

www.hsmwire.com



Copper Clad Aluminum (CCA) 10%

Product Summary and Specification

Attribute	ASTM B-566 (2004)
Core	Aluminum
Cladding	Copper
Density	0.120 lbs/in ³ (3.318 gm/cm ³)
AC Conductivity > 5MHz	Equal to Copper
DC Conductivity	62.9% min
% Copper by area	10% nom
% Copper by weight	27% nom
Tensile Strength Annealed	20 ksi (138 MPa)
Tensile Strength as Drawn	36 ksi (249 MPa)

Physical and Mechanical Properties of 10% CCA

Diameter			Area in ² / mm ²	Minimum Copper Thickness in/mm	CCA Weight lb / k-ft & kg / km	CCA ohms / k-ft & ohms / km	Equal Resistance Cu CCA Diameter in / mm
AWG	Inches	Mm					
1/0	0.3249	8.25	0.08291 / 53.49	0.0081 / 0.2054	119.39 / 177.60	0.156 / 0.512	0.4097 / 10.41
1	0.2893	7.35	0.06572 / 42.40	0.0072 / 0.1829	94.64 / 140.79	0.197 / 0.646	0.3647 / 9.26
2	0.2576	6.54	0.05212 / 33.63	0.0064 / 0.1629	75.06 / 111.65	0.248 / 0.815	0.3248 / 8.25
3	0.2294	5.83	0.04134 / 26.67	0.0057 / 0.1450	59.52 / 88.55	0.313 / 1.028	0.2893 / 7.35
4	0.2043	5.19	0.03278 / 21.15	0.0051 / 0.1292	47.21 / 70.22	0.395 / 1.296	0.2576 / 6.54
5	0.1819	4.62	0.02600 / 16.77	0.0045 / 0.1150	37.44 / 55.69	0.498 / 1.634	0.2294 / 5.83
6	0.162	4.12	0.02062 / 13.30	0.0040 / 0.1024	29.69 / 44.16	0.628 / 2.061	0.2043 / 5.19
7	0.1443	3.66	0.01635 / 10.55	0.0036 / 0.0912	23.54 / 35.02	0.792 / 2.598	0.1819 / 4.62
8	0.1285	3.26	0.01297 / 8.37	0.0032 / 0.0812	18.67 / 27.78	0.999 / 3.277	0.1620 / 4.12
9	0.1144	2.91	0.01028 / 6.63	0.0028 / 0.0723	14.81 / 22.03	1.259 / 4.132	0.1443 / 3.66
10	0.1019	2.59	0.00816 / 5.26	0.0025 / 0.0644	11.74 / 17.47	1.588 / 5.210	0.1285 / 3.26
11	0.0907	2.30	0.00647 / 4.17	0.0023 / 0.0574	9.31 / 13.85	2.002 / 6.569	0.1144 / 2.91
12	0.0808	2.05	0.00513 / 3.31	0.0020 / 0.0511	7.39 / 10.99	2.525 / 8.284	0.1019 / 2.59
13	0.0720	1.83	0.00407 / 2.62	0.0018 / 0.0455	5.86 / 8.71	3.184 / 10.445	0.0907 / 2.30
14	0.0641	1.63	0.00323 / 2.08	0.0016 / 0.0405	4.65 / 6.91	4.014 / 13.171	0.0808 / 2.05
15	0.0571	1.45	0.00256 / 1.65	0.0014 / 0.0361	3.68 / 5.48	5.062 / 16.608	0.0720 / 1.83
16	0.0508	1.29	0.00203 / 1.31	0.0013 / 0.0321	2.92 / 4.35	6.383 / 20.942	0.0641 / 1.63
17	0.0453	1.15	0.00161 / 1.04	0.0011 / 0.0286	2.32 / 3.45	8.049 / 25.407	0.0571 / 1.45
18	0.0403	1.02	0.00128 / 0.82	0.0010 / 0.0255	1.84 / 2.73	10.149 / 32.298	0.0508 / 1.29
19	0.0359	0.91	0.00101 / 0.65	0.0009 / 0.0227	1.46 / 2.17	12.798 / 41.987	0.0453 / 1.15
20	0.0320	0.81	0.00080 / 0.52	0.0008 / 0.0202	1.16 / 1.72	16.137 / 52.944	0.0403 / 1.02

*To be used as a guideline only.

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R1.06.09.2013