

COPPER CLAD STEEL 30% CONDUCTIVITY

Torpedo Specialty Wire produces copper clad steel by high temperature roll forming and metallurgically bonding copper strips onto a steel core rod.

Copper clad steel combines the corrosion resistance of a copper surface and the strength and toughness of a steel core. The conductivity of the composite can be controlled from 24% to 80% IACS (International Annealed Copper Standard). AISI steel cores from 1006 to 1022 are standard. Other steels are available by quote.

30% copper clad steels have a nominal copper thickness of 10% of the composite diameter and are used in applications for CATV, telephones, telecommunications, electronics, utility ground wires, and light bulbs.

Size	Diameter	Cross Section		Weight	Copper Thickness	Resistance	Breaking Load Pounds		Size
AWG	Inches	Square Inches	Circular Mils	Pounds Per 1000 Feet	Inches (Nom.)	Ohms Per 1000 Feet	Type 1 Hard	Type 2 Hard	AWG
0	0.3249	0.08291	105560	292.51	0.015920	0.334			0
1	0.2893	0.06573	83694	231.90	0.014176	0.421			1
2	0.2576	0.05212	66358	183.88	0.012622	0.531			2
3	0.2294	0.04133	52624	145.81	0.011241	0.670			3
4	0.2043	0.03278	41738	115.65	0.010011	0.845	2950	3934	4
5	0.1819	0.02599	33088	91.69	0.008913	1.066	2420	3250	5
6	0.1620	0.02061	26244	72.71	0.007938	1.344	2033	2680	6
7	0.1443	0.01635	20822	57.68	0.007071	1.693	1630	2207	7
8	0.1285	0.01297	16512	45.76	0.006297	2.136	1350	1815	8
9	0.1144	0.01028	13087	36.27	0.005606	2.694	1110	1491	9
10	0.1019	0.00816	10384	28.79	0.004993	3.396	925	1231	10
11	0.0907	0.00646	8226	22.79	0.004444	4.286	765	972	11
12	0.0808	0.00513	6529	18.10	0.003959	5.401	625	707	12
13	0.0720	0.00407	5184	14.36	0.003528	6.802	488	530	13
14	0.0641	0.00323	4109	11.40	0.003141	8.582	388	422	14
15	0.0571	0.00256	3260	9.03	0.002798	10.815	291	336	15
16	0.0508	0.00203	2581	7.16	0.002489	13.664	231	270	16
17	0.0453	0.00161	2052	5.68	0.002220	17.183	186	219	17
18	0.0403	0.00128	1624	4.52	0.001975	21.712	148	176	18
19	0.0359	0.00101	1289	3.56	0.001759	27.360	119	140	19
20	0.0320	0.0008	1024	2.82	0.001568	34.435	95	112	20
21	0.0285	0.00064	812	2.26	0.001397	43.412	75	89	21
22	0.0253	0.0005	640	1.76	0.001240	55.089	60	70	22
23	0.0226	0.0004	511	1.41	0.001107	69.038	48	57	23
24	0.0201	0.00032	404	1.13	0.000985	87.279	38	45	24
25	0.0179	0.000252	320	0.89	0.00088	110.040	30	35	25
26	0.0159	0.000199	254	0.70	0.00078	138.760	24	28	26

Specifications:

ASTM B 227
 ASTM B 452
 ASTM B 910

Standard Tolerances:

Diameter + 1% , -1%

Soft Annealed Tempers

Nominal 55,000 psi tensile strength
 10% minimum elongation