

Resistencia eléctrica de hilos de cobre esmaltados

| Diametro Nom. [mm] | AWG | Min [Ω/m] | Nominal [Ω/m] | Max [Ω/m] |
|-----------------------|------|--------------|------------------|--------------|
| 0.0098 | 58 | 204.0 | 226.6 | 249.3 |
| 0.0101 | | 192.0 | 213.4 | 234.7 |
| 0.0109 | 57 | 164.9 | 183.2 | 201.5 |
| 0.0113 | | 153.4 | 170.5 | 187.5 |
| 0.0120 | | 136.0 | 151.1 | 166.3 |
| 0.0125 | 56 | 125.4 | 139.3 | 153.2 |
| 0.0130 | 55.5 | 115.9 | 128.8 | 141.7 |
| 0.0135 | 55 | 107.5 | 119.4 | 131.4 |
| 0.0140 | | 99.94 | 111.0 | 122.1 |
| 0.0145 | 54.5 | 93.17 | 103.5 | 113.9 |
| 0.0155 | 54 | 81.53 | 90.59 | 99.65 |
| 0.0160 | | 76.52 | 85.02 | 93.52 |
| 0.0165 | 53.5 | 71.95 | 79.94 | 87.94 |
| 0.0170 | | 67.78 | 75.31 | 82.84 |
| 0.0175 | 53 | 63.96 | 71.07 | 78.18 |
| 0.0180 | | 60.46 | 67.18 | 73.89 |
| 0.0185 | 52.5 | 57.23 | 63.59 | 69.95 |
| 0.0190 | | 54.26 | 60.29 | 66.32 |
| 0.0195 | 52 | 51.51 | 57.24 | 62.96 |
| 0.0200 | | 48.97 | 54.41 | 59.85 |
| 0.0210 | 51.5 | 44.42 | 49.35 | 54.29 |
| 0.0215 | | 42.38 | 47.08 | 51.79 |
| 0.0220 | 51 | 40.47 | 44.97 | 49.47 |
| 0.0230 | 50.5 | 37.03 | 41.14 | 45.26 |
| 0.0240 | | 34.01 | 37.79 | 41.56 |
| 0.0245 | 50 | 32.63 | 36.26 | 39.89 |
| 0.0250 | | 31.34 | 34.82 | 38.31 |
| 0.0260 | 49.5 | 28.98 | 32.20 | 35.42 |
| 0.0270 | | 26.87 | 29.86 | 32.84 |
| 0.0275 | 49 | 25.90 | 28.78 | 31.66 |
| 0.0280 | | 24.99 | 27.76 | 30.54 |
| 0.0290 | 48.5 | 23.29 | 25.88 | 28.47 |
| 0.0300 | | 21.76 | 24.18 | 26.60 |
| 0.0310 | 48 | 20.38 | 22.65 | 24.91 |
| 0.0320 | | 19.13 | 21.25 | 23.38 |
| 0.0330 | 47.5 | 18.05 | 19.99 | 21.92 |
| 0.0340 | | 17.00 | 18.83 | 20.65 |
| 0.0350 | 47 | 16.04 | 17.77 | 19.49 |
| 0.0360 | | 15.16 | 16.79 | 18.42 |
| 0.0370 | 46.5 | 14.36 | 15.90 | 17.44 |
| 0.0380 | | 13.61 | 15.07 | 16.53 |
| 0.0381 | 46.1 | 13.54 | 14.99 | 16.45 |
| 0.0390 | 46.0 | 12.92 | 14.31 | 15.70 |
| 0.0400 | | 12.28 | 13.60 | 14.92 |
| 0.0410 | 45.5 | 11.69 | 12.95 | 14.20 |
| 0.0420 | | 11.14 | 12.34 | 13.54 |

| Diametro Nom. [mm] | AWG | Min [Ω/m] | Nominal [Ω/m] | Max [Ω/m] |
|-----------------------|------|--------------|------------------|--------------|
| 0.0430 | | 10.63 | 11.77 | 12.91 |
| 0.0437 | | 10.29 | 11.40 | 12.50 |
| 0.0440 | 45 | 10.15 | 11.24 | 12.33 |
| 0.0450 | | 9.705 | 10.75 | 11.79 |
| 0.0460 | | 9.360 | 10.29 | 11.21 |
| 0.0470 | 44.5 | 8.966 | 9.853 | 10.74 |
| 0.0480 | | 8.596 | 9.447 | 10.30 |
| 0.0490 | | 8.249 | 9.065 | 9.881 |
| 0.0500 | 44 | 7.922 | 8.706 | 9.489 |
| 0.0520 | 43.5 | 7.325 | 8.049 | 8.774 |
| 0.0530 | | 7.051 | 7.748 | 8.446 |
| 0.0550 | 43 | 6.547 | 7.195 | 7.843 |
| 0.0560 | | 6.316 | 6.940 | 7.565 |
| 0.0580 | | 5.952 | 6.470 | 6.988 |
| 0.0600 | 42.5 | 5.562 | 6.046 | 6.529 |
| 0.0620 | | 5.209 | 5.662 | 6.115 |
| 0.0630 | 42 | 5.045 | 5.484 | 5.922 |
| 0.0650 | 41.5 | 4.667 | 5.151 | 5.711 |
| 0.0670 | | 4.404 | 4.848 | 5.359 |
| 0.0680 | | 4.281 | 4.707 | 5.196 |
| 0.0700 | 41 | 4.050 | 4.442 | 4.890 |
| 0.0710 | | 3.941 | 4.318 | 4.747 |
| 0.0740 | | 3.640 | 3.975 | 4.355 |
| 0.0750 | 40.5 | 3.547 | 3.869 | 4.235 |
| 0.0780 | 40 | 3.289 | 3.577 | 3.903 |
| 0.0800 | | 3.133 | 3.401 | 3.703 |
| 0.0830 | 39.5 | 2.918 | 3.159 | 3.430 |
| 0.0850 | | 2.787 | 3.012 | 3.265 |
| 0.0880 | 39 | 2.606 | 2.811 | 3.038 |
| 0.0900 | | 2.495 | 2.687 | 2.900 |
| 0.0930 | 38.5 | 2.342 | 2.516 | 2.710 |
| 0.0950 | | 2.247 | 2.412 | 2.594 |
| 0.1000 | | 2.034 | 2.176 | 2.333 |
| 0.101 | 38.0 | 1.995 | 2.134 | 2.286 |
| 0.106 | 37.5 | 1.816 | 1.937 | 2.069 |
| 0.110 | | 1.690 | 1.799 | 1.917 |
| 0.112 | | 1.632 | 1.735 | 1.848 |
| 0.113 | 37 | 1.604 | 1.705 | 1.814 |
| 0.115 | | 1.550 | 1.646 | 1.750 |
| 0.118 | 36.5 | 1.474 | 1.563 | 1.660 |
| 0.120 | | 1.426 | 1.511 | 1.604 |
| 0.125 | | 1.317 | 1.393 | 1.475 |
| 0.126 | 36 | 1.297 | 1.371 | 1.451 |
| 0.130 | | 1.220 | 1.288 | 1.361 |
| 0.132 | | 1.184 | 1.249 | 1.319 |
| 0.134 | 35.5 | 1.150 | 1.212 | 1.279 |

| Diametro Nom. [mm] | AWG | Min [Ω/m] | Nominal [Ω/m] | Max [Ω/m] | Diametro Nom. [mm] | AWG | Min [Ω/m] | Nominal [Ω/m] | Max [Ω/m] |
|--------------------|------|-----------|---------------|-----------|--------------------|------|-----------|---------------|-----------|
| 0.138 | | 1.085 | 1.143 | 1.205 | 0.270 | | 0.2874 | 0.2986 | 0.3103 |
| 0.140 | | 1.055 | 1.110 | 1.170 | 0.280 | | 0.2676 | 0.2776 | 0.2882 |
| 0.141 | 35 | 1.041 | 1.095 | 1.153 | 0.286 | 29 | 0.2566 | 0.2661 | 0.2760 |
| 0.149 | 34.5 | 0.9341 | 0.9804 | 1.030 | 0.290 | | 0.2497 | 0.2588 | 0.2684 |
| 0.150 | | 0.9219 | 0.9673 | 1.016 | 0.295 | | 0.2414 | 0.2501 | 0.2592 |
| 0.159 | 34.0 | 0.8223 | 0.8609 | 0.9021 | 0.300 | | 0.2335 | 0.2418 | 0.2506 |
| 0.160 | | 0.8122 | 0.8502 | 0.8906 | 0.301 | 28.5 | 0.2320 | 0.2402 | 0.2489 |
| 0.169 | 33.5 | 0.7295 | 0.7620 | 0.7966 | 0.315 | | 0.2121 | 0.2193 | 0.2270 |
| 0.170 | | 0.7211 | 0.7531 | 0.7871 | 0.319 | 28 | 0.2068 | 0.2139 | 0.2212 |
| 0.179 | 33 | 0.6515 | 0.6793 | 0.7087 | 0.335 | | 0.1878 | 0.1939 | 0.2004 |
| 0.180 | | 0.6444 | 0.6718 | 0.7007 | 0.339 | 27.5 | 0.1834 | 0.1894 | 0.1956 |
| 0.189 | | 0.5854 | 0.6093 | 0.6345 | 0.345 | | 0.1772 | 0.1829 | 0.1888 |
| 0.190 | 32.5 | 0.5794 | 0.6029 | 0.6278 | 0.350 | | 0.1722 | 0.1777 | 0.1834 |
| 0.200 | | 0.5237 | 0.5441 | 0.5657 | 0.355 | | 0.1674 | 0.1727 | 0.1782 |
| 0.202 | 32 | 0.5135 | 0.5334 | 0.5543 | 0.360 | 27 | 0.1629 | 0.1679 | 0.1732 |
| 0.210 | | 0.4757 | 0.4935 | 0.5123 | 0.375 | | 0.1494 | 0.1548 | 0.1604 |
| 0.212 | 31.5 | 0.4669 | 0.4843 | 0.5026 | 0.380 | 26.5 | 0.1456 | 0.1507 | 0.1561 |
| 0.220 | | 0.4340 | 0.4497 | 0.4662 | 0.383 | | 0.1433 | 0.1484 | 0.1536 |
| 0.222 | | 0.4263 | 0.4416 | 0.4577 | 0.390 | | 0.1383 | 0.1431 | 0.1481 |
| 0.224 | | 0.4188 | 0.4338 | 0.4495 | 0.400 | | 0.1316 | 0.1360 | 0.1407 |
| 0.225 | 31 | 0.4115 | 0.4299 | 0.4495 | 0.402 | 26 | 0.1303 | 0.1347 | 0.1393 |
| 0.230 | | 0.3941 | 0.4114 | 0.4298 | 0.420 | | 0.1195 | 0.1234 | 0.1275 |
| 0.236 | | 0.3747 | 0.3908 | 0.4079 | 0.425 | | 0.1167 | 0.1205 | 0.1244 |
| 0.239 | | 0.3655 | 0.3810 | 0.3975 | 0.427 | 25.5 | 0.1156 | 0.1194 | 0.1233 |
| 0.240 | 30.5 | 0.3625 | 0.3779 | 0.3941 | 0.450 | | 0.1042 | 0.1075 | 0.1109 |
| 0.250 | | 0.3345 | 0.3482 | 0.3628 | 0.453 | 25 | 0.1029 | 0.1061 | 0.1094 |
| 0.253 | 30 | 0.3267 | 0.3400 | 0.3541 | 0.475 | | 0.09366 | 0.09646 | 0.09938 |
| 0.260 | | 0.3096 | 0.3220 | 0.3350 | 0.481 | 24.5 | 0.09137 | 0.09407 | 0.09689 |
| 0.265 | | 0.2982 | 0.3099 | 0.3223 | 0.500 | | 0.08462 | 0.08706 | 0.08959 |
| 0.268 | 29.5 | 0.2917 | 0.3030 | 0.3150 | 0.508 | 24 | 0.08168 | 0.08434 | 0.08711 |

[Fuente: www.eletrisola.com]

Límites de resistencia eléctrica calculados según la norma IEC 317-0-1 Anexo C.1

| Nom. Diameter [mm] | Nominal [Ω/m] |
|--------------------|---------------|
| 0.5 | 0,0838 |
| 0.6 | 0,0582 |
| 0.8 | 0,0328 |
| 1.0 | 0,0210 |
| 1.4 | 0,0107 |
| 1.6 | 0,00819 |
| 2.0 | 0,00524 |
| 2.5 | 0,00335 |

[Fuente: www.bnoack.com]