


ROME UNCOATED SOLID COPPER WIRE

| STANDARDS: | | | | | | | | | | |
|---|-------------------------|------------------------------------|------------------------------|--|---|-------------------------------|-------------------------------|---|-------------------------------|---|
| 1. Conforms to ASTM B-1 for Hard Drawn, ASTM B-2 for Medium Hard Drawn, and ASTM B-3 for Soft or Annealed Copper Wire. 2. Conforms to Federal Standard QQ-W-343. 3. Conforms to National Bureau of Standards Handbook 100. 4. Breaking strength and resistance are calculated in accordance with ASTM B-258. | | | |  | | | | | | |
| Size AWG | Nominal Diameter Inches | Cross Sectional Area Circular Mils | Approx. Net Wt. Lb./1000 Ft. | Hard Drawn | | Medium Hard Drawn | | | Annealed (Soft Drawn) | |
| | | | | Minimum Breaking Strength Lb. | Max. d-c Resistance @20 C (Ohms/1000 Ft.) | Minimum Breaking Strength Lb. | Maximum Breaking Strength Lb. | Max. d-c Resistance @20 C (Ohms/1000 Ft.) | Maximum Breaking Strength Lb. | Max. d-c Resistance @20 C (Ohms/1000 Ft.) |
| 34 | 0.0063 | 39.7 | 0.120 | - | 272 | - | - | 270 | - | 261 |
| 33 | 0.0071 | 50.4 | 0.153 | - | 214 | - | - | 213 | - | 206 |
| 32 | 0.0080 | 64.0 | 0.194 | - | 168 | - | - | 168 | - | 162 |
| 31 | 0.0089 | 79.2 | 0.240 | - | 136 | - | - | 135 | - | 131 |
| 30 | 0.0100 | 100 | 0.303 | - | 108 | - | - | 107 | - | 104 |
| 29 | 0.0113 | 128 | 0.387 | - | 84.5 | - | - | 84.0 | - | 81.2 |
| 28 | 0.0126 | 159 | 0.481 | - | 67.9 | - | - | 67.6 | - | 65.3 |
| 27 | 0.0142 | 202 | 0.610 | - | 53.5 | - | - | 53.2 | - | 51.4 |
| 26 | 0.0159 | 253 | 0.765 | - | 42.7 | - | - | 42.4 | - | 41.0 |
| 25 | 0.0179 | 320 | 0.970 | - | 33.7 | - | - | 33.5 | - | 32.4 |
| 24 | 0.0201 | 404 | 1.22 | - | 26.7 | - | - | 26.6 | - | 25.7 |
| 23 | 0.0226 | 511 | 1.55 | - | 21.1 | - | - | 21.0 | 15 | 20.3 |
| 22 | 0.0253 | 640 | 1.94 | - | 16.9 | - | - | 16.8 | 19 | 16.2 |
| 21 | 0.0285 | 812 | 2.46 | - | 13.3 | - | - | 13.2 | 24 | 12.8 |
| 20 | 0.0320 | 1,020 | 3.10 | - | 10.5 | - | - | 10.5 | 31 | 10.1 |
| 19 | 0.0359 | 1,290 | 3.90 | - | 8.37 | - | - | 8.32 | 39 | 8.05 |
| 18 | 0.0403 | 1,620 | 4.92 | 85 | 6.64 | 67 | 76 | 6.61 | 49 | 6.39 |
| 17 | 0.0453 | 2,050 | 6.21 | 108 | 5.26 | 84 | 96 | 5.23 | 62 | 5.05 |
| 16 | 0.0508 | 2,580 | 7.81 | 135 | 4.18 | 106 | 120 | 4.16 | 73 | 4.02 |
| 15 | 0.0571 | 3,260 | 9.87 | 170 | 3.31 | 133 | 151 | 3.29 | 98 | 3.18 |
| 14 | 0.0641 | 4,110 | 12.4 | 214 | 2.63 | 167 | 189 | 2.61 | 124 | 2.5 |
| 13 | 0.0720 | 5,180 | 15.7 | 268 | 2.09 | 209 | 237 | 2.07 | 157 | 2.00 |
| 12 | 0.0808 | 6,530 | 19.8 | 337 | 1.65 | 262 | 297 | 1.64 | 197 | 1.59 |
| 11 | 0.0907 | 8,230 | 24.9 | 423 | 1.31 | 327 | 372 | 1.30 | 249 | 1.26 |
| 10 | 0.1019 | 10,380 | 31.43 | 529 | 1.039 | 410 | 467 | 1.033 | 314 | .9988 |
| 9 | 0.1144 | 13,090 | 39.62 | 660 | .8241 | 513 | 585 | .8199 | 380 | .7925 |
| 8 | 0.1285 | 16,510 | 49.98 | 826 | .6532 | 644 | 734 | .6498 | 479 | .6281 |
| 7 | 0.1443 | 20,820 | 63.03 | 1030 | .5180 | 806 | 921 | .5153 | 605 | .4981 |
| 6 | 0.1620 | 26,240 | 79.44 | 1280 | .4110 | 1010 | 1154 | .4088 | 762 | .3952 |
| 5 | 0.1819 | 33,090 | 100.2 | 1590 | .3260 | 1265 | 1446 | .3243 | 961 | .3134 |
| 4 | 0.2043 | 41,740 | 126.3 | 1970 | .2584 | 1584 | 1814 | .2571 | 1213 | .2485 |
| 3 | 0.2294 | 52,620 | 159.3 | - | - | 1984 | 2273 | .2039 | 1529 | .1971 |
| 2 | 0.2576 | 66,360 | 200.9 | - | - | 2450 | 2814 | .1617 | 1928 | .1563 |

Tinned copper wire is available through and including size 2 AWG.

Information on this sheet subject to change without notice.

Specification

ROME UNCOATED SOLID COPPER WIRE

1. SCOPE

- 1.1 This specification describes solid uncoated copper wire in hard, medium hard or soft annealed tempers for all applicable uses.

2. STANDARDS

- 2.1 American Society for Testing Materials. ASTM Specifications B-1 for hard temper, B-2 for medium hard temper, and B-3 for soft or annealed temper copper wire.
- 2.2 Federal Specification QQ-W-343E or latest issue, Wire, Electrical, Uninsulated.
- 2.3 United States Department of Commerce Handbook 100, Copper Wire Tables.

3. CONDUCTOR

- 3.1 Conductors shall meet all the requirements of the ASTM standards for physical and electrical properties.

4. TESTS

- 4.1 Conductors shall be tested to insure conformance to the ASTM or federal standards. Certified test reports may be furnished if requested prior to manufacture.

5. PACKAGING

- 5.1 Conductors shall be packaged in accordance with standard commercial practice.