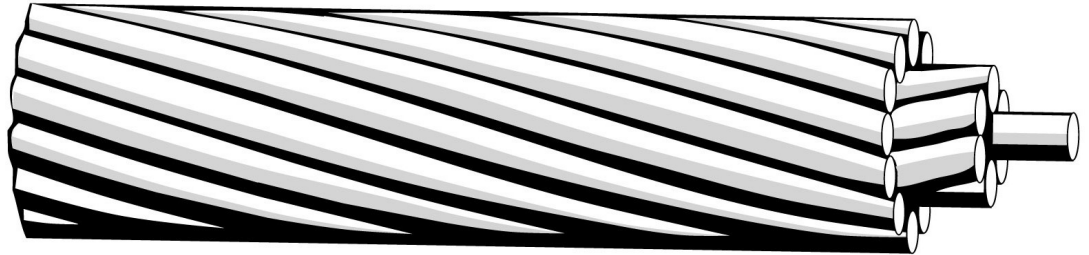


# Bare Copper Wire and Cable

Bare Copper Conductor. Solid and Stranded .



## APPLICATIONS

Solid and stranded (classes AA and A) bare copper are suitable for overhead transmission and distribution applications. Stranded conductor of greater flexibility (classes B and C) are suitable for uninsulated hook up, jumpers, and grounds in electrical construction. Soft Drawn copper is unilay construction.

## SPECIFICATIONS

Southwire's bare copper wire and cable meets or exceeds the following ASTM specifications:

- B-1 Hard-Drawn Copper Wire.
- B-2 Medium-Hard Copper Wire.
- B-3 Soft or Annealed Copper Wire.
- B-8 Concentric-Lay-Stranded Hard, Medium-Hard or Soft Copper Conductor.
- B-33 Tinned Conductors
- B-787 19 Wire Combination Unilay-Stranded Soft copper wire.

## CONSTRUCTION

Bare copper, solid or stranded. Available in tempers hard, medium-hard, or soft. Stranded conductors are concentrically stranded in hard and medium-hard tempers and are Combination Unilay stranded in the soft-drawn temper.

# Bare Copper

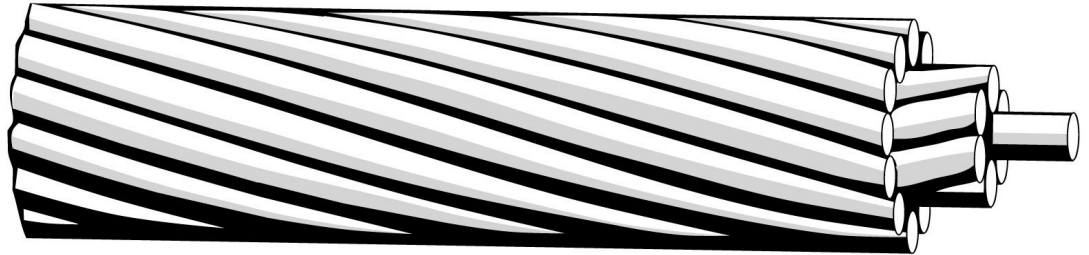
| Size<br>(AWG)  | Weight<br>(lbs/1000 ft) | Diameter<br>(mils) | Circular Mil<br>Area (mils) | Hard Drawn                  |   | Medium-Hard Drawn          |   | Soft-Drawn (Annealed)      |   | Allowable<br>Ampacity+ |
|--|-------------------------|--------------------|-----------------------------|-----------------------------|---|----------------------------|---|----------------------------|---|------------------------|
|  |                         |                    |                             | Rated<br>Strength><br>(lbs) | DC<br>Resistance<br>(ohms/1000<br>ft)<br>@ 20°C | Rated<br>Strength<br>(lbs) | DC<br>Resistance<br>(ohms/1000<br>ft)<br>@ 20°C | Rated<br>Strength<br>(lbs) | DC<br>Resistance<br>(ohms/1000<br>ft)<br>@ 20°C |                        |
| SOLID  |                         |                    |                             |                             |   |                            |   |                            |   |                        |
| 14   | 12.4                    | 64.1               | 4110                        | 213.5                       | 2.626   | 166.6                      | 2.613   | 124.2                      | 2.525   | --                     |
| 13   | 15.7                    | 72                 | 5180                        | 268.0                       | 2.083   | 208.8                      | 2.072   | 156.6                      | 2.003   | --                     |
| 12   | 19.8                    | 80.8               | 6530                        | 336.9                       | 1.652   | 261.2                      | 1.643   | 197.5                      | 1.588   | --                     |
| 11   | 24.9                    | 90.7               | 8230                        | 422.9                       | 1.310   | 327.6                      | 1.303   | 249.0                      | 1.260   | --                     |
| 10   | 31.4                    | 101.9              | 10380                       | 529.2                       | 1.039   | 410.4                      | 1.033   | 314.0                      | .999  | --                     |
| 9  | 39.6                    | 114.4              | 13090                       | 661.2                       | .824  | 514.2                      | .820  | 380.5                      | .792  | --                     |
| 8  | 50                      | 128.5              | 16510                       | 826.0                       | .653  | 643.9                      | .650  | 479.8                      | .628  | 95                     |
| 7  | 63                      | 144.3              | 20820                       | 1030.0                      | .518  | 806.6                      | .515  | 605.0                      | .498  | 105                    |
| 6  | 79.4                    | 162                | 26240                       | 1280.0                      | .411  | 1010.0                     | .409  | 762.9                      | .395  | 125                    |
| 5  | 100.2                   | 181.9              | 33090                       | 1591.0                      | .326  | 1265.0                     | .324  | 961.9                      | .313  | 145                    |
| 4  | 126.3                   | 204.3              | 41740                       | 1970.0                      | .258  | 1584.0                     | .257  | 1213.0                     | .249  | 170                    |
| 3  | 159.3                   | 229.4              | 52620                       | 2439.0                      | .205  | 1984.0                     | .204  | 1530.0                     | .197  | 195                    |
| 2  | 200.9                   | 257.6              | 66360                       | 3003.0                      | .163  | 2450.0                     | .162  | 1929.0                     | .156  | 225                    |
| 1  | 253.3                   | 289.3              | 83690                       | 3688.0                      | .129  | 3024.0                     | .128  | 2432.0                     | .124  | 260                    |
| +Ampacity based on 75°C conductor temperature; 25°C ambient temperature; 2 ft./sec. wind in sun. |                         |                    |                             |                             |   |                            |   |                            |   |                        |

# Bare Copper

| Size (AWG)   | Stranding | Stranding Class | Weight (lbs/1000 ft) | Diameter (mils)  |                    | Hard Drawn           |                                     | Medium-Hard Drawn    |                                     | Soft-Drawn (Annealed) |                                     | Allowable Ampacity+ |
|--|-----------|-----------------|----------------------|------------------|--------------------|----------------------|-------------------------------------|----------------------|-------------------------------------|-----------------------|-------------------------------------|---------------------|
|  |           |                 |                      | Individual Wires | Complete Conductor | Rated Strength (lbs) | DC Resistance (ohms/1000 ft) @ 20°C | Rated Strength (lbs) | DC Resistance (ohms/1000 ft) @ 20°C | Rated Strength (lbs)  | DC Resistance (ohms/1000 ft) @ 20°C |                     |
| STRAINED   |           |                 |                      |                  |                    |                      |                                     |                      |                                     |                       |                                     |                     |
| 8  | 7         | B               | 51                   | 49               | 146                | 777                  | .6663                               | 610                  | .6629                               | 499                   | .6408                               | 95                  |
| 6  | 7         | B               | 81                   | 61               | 184                | 1228                 | .4191                               | 959                  | .4169                               | 794                   | .4030                               | 130                 |
| 4  | 7         | A, B            | 128.9                | 77               | 232                | 1938                 | .2636                               | 1505                 | .2622                               | 1320                  | .2534                               | 170                 |
| 3  | 7         | A, B            | 162.5                | 87               | 260                | 2433                 | .2090                               | 1885                 | .2079                               | 1670                  | .2010                               | 200                 |
| 2  | 7         | A, B            | 204.9                | 97               | 292                | 3050                 | .1660                               | 2360                 | .1650                               | 2110                  | .1578                               | 230                 |
| 1  | 7         | A               | 258.4                | 109              | 328                | 3801                 | .1316                               | 2955                 | .1309                               | 2552                  | .1252                               | 265                 |
| 1/0  | 7         | A, AA           | 326.1                | 123              | 368                | 4752                 | .1042                               | 3705                 | .1037                               | 3221                  | .1002                               | 310                 |
| 2/0  | 7         | A, AA           | 410.9                | 138              | 414                | 5926                 | .08267                              | 4640                 | .08224                              | 4062                  | .07949                              | 355                 |
| 2/0  | 19        | B               | 410.9                | 84               | 418                | 6690                 | .08267                              | 4765                 | .08224                              | 4024                  | .07949                              | 355                 |
| 3/0  | 7         | A, AA           | 518.1                | 155              | 464                | 7366                 | .06556                              | 5812                 | .06522                              | 5118                  | .06304                              | 410                 |
| 4/0  | 7         | A, AA           | 653.3                | 174              | 522                | 9154                 | .05199                              | 7278                 | .05172                              | 6459                  | .04999                              | 480                 |
| 4/0  | 19        | B               | 653.3                | 106              | 528                | 9617                 | .05199                              | 7479                 | .05172                              | 6453                  | .04999                              | 480                 |
| 250  | 19        | A               | 771.9                | 115              | 574                | 11360                | .04400                              | 8836                 | .04378                              | 7627                  | .04231                              | 530                 |
| 250  | 37        | B               | 771.9                | 82               | 575                | 11600                | .04400                              | 8952                 | .04378                              | 7940                  | .04231                              | 530                 |
| 300  | 19        | A               | 926.2                | 126              | 628                | 13510                | .03667                              | 10530                | .03648                              | 9160                  | .03526                              | 590                 |
| 350  | 19        | A               | 1080.6               | 136              | 679                | 15590                | .03143                              | 12200                | .03127                              | 10680                 | .03022                              | 650                 |
| 500  | 37        | A, B            | 1543.8               | 116              | 814                | 22510                | .02200                              | 17550                | .02189                              | 15240                 | .02116                              | 810                 |
| 600  | 37        | A, AA           | 1852.5               | 127              | 891                | 27020                | .01834                              | 21060                | .01825                              | 18300                 | .01763                              | 910                 |
| 750  | 61        | A, B            | 2315.6               | 111              | 998                | 34090                | .01467                              | 26510                | .01459                              | 22890                 | .01410                              | 1040                |
| 1000   | 61        | A, B            | 3087.5               | 128              | 1152               | 45030                | .01100                              | 35100                | .01094                              | 30500                 | .01058                              | 1240                |
| +Ampacity based on 75°C conductor temperature; 25°C ambient temperature; 2 ft./sec. wind in sun. |           |                 |                      |                  |                    |                      |                                     |                      |                                     |                       |                                     |                     |

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# Bare Copper

| Size<br>(AWG)  | Weight<br>(lbs/1000 ft) | Diameter<br>(mils) | Circular Mil<br>Area (mils) | Hard Drawn                  |   | Medium-Hard Drawn          |   | Soft-Drawn (Annealed)      |   | Allowable<br>Ampacity+ |
|--|-------------------------|--------------------|-----------------------------|-----------------------------|---|----------------------------|---|----------------------------|---|------------------------|
|  |                         |                    |                             | Rated<br>Strength><br>(lbs) | DC<br>Resistance<br>(ohms/1000<br>ft)<br>@ 20°C | Rated<br>Strength<br>(lbs) | DC<br>Resistance<br>(ohms/1000<br>ft)<br>@ 20°C | Rated<br>Strength<br>(lbs) | DC<br>Resistance<br>(ohms/1000<br>ft)<br>@ 20°C |                        |
| SOLID  |                         |                    |                             |                             |   |                            |   |                            |   |                        |
| 14   | 12.4                    | 64.1               | 4110                        | 213.5                       | 2.626   | 166.6                      | 2.613   | 124.2                      | 2.525   | --                     |
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# Bare Copper

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|--|-----------|-----------------|----------------------|------------------|--------------------|----------------------|-------------------------------------|----------------------|-------------------------------------|-----------------------|-------------------------------------|---------------------|
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| STRAINED   |           |                 |                      |                  |                    |                      |                                     |                      |                                     |                       |                                     |                     |
| 8  | 7         | B               | 51                   | 49               | 146                | 777                  | .6663                               | 610                  | .6629                               | 499                   | .6408                               | 95                  |
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| +Ampacity based on 75°C conductor temperature; 25°C ambient temperature; 2 ft./sec. wind in sun. |           |                 |                      |                  |                    |                      |                                     |                      |                                     |                       |                                     |                     |