

# Wire - Type THHN/THWN-2

## Applications

Type THHN/THWN-2 building wire is intended for general purpose applications as defined by the National Electrical Code (NEC). Type THHN/THWN-2 is permitted for new construction or rewiring for 600-volt applications. For applications requiring Type THHN/THWN-2, the conductor is appropriate for use in wet or dry locations at temperatures not to exceed 90°C or not to exceed 75°C in oil or coolants. Slick nylon outer jacket for easy pulling. All sizes rated gasoline and oil resistant II. THHN/THWN-2 wire 6AWG and larger Sunlight Resistant in all colors.

THHN wire is sold in 500-foot spools.



## Features

### Conductors

Stranded, uncoated copper conductors per ASTM-B3, ASTM-B787 and ASTM-B8

### Insulation

Color-coded Polyvinyl Chloride (PVC), heat and moisture-resistant, flame-retardant compound per UL-1063 and UL-83

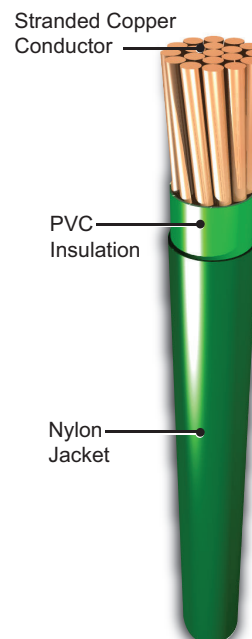
### Jacket

A tough, polyamide, Nylon outer covering per UL-1063 and UL-83

## Standards

- UL Standards UL-758, UL-1063
- AWM Spec 1316, 1318, 1219, 1408, 1410, 1411, 1452
- Canadian Standards Association C22.2 No. 210
- RoHS

## Type THHN/THWN-2 Wire



## Type THHN/THWN-2 Wire Specifications

| Size<br>(AWG or<br>kcmil) | Number of<br>Strands | mm <sup>2</sup><br>Equivalent | Insulation Thickness<br>(inches) |       | Overall<br>Outside Diameter |      | Allowable<br>Ampacities* |      |      | Approximate<br>Weight (lbs)<br>500ft | Standard<br>Packaging<br>spool/reel |
|---------------------------|----------------------|-------------------------------|----------------------------------|-------|-----------------------------|------|--------------------------|------|------|--------------------------------------|-------------------------------------|
|                           |                      |                               | PVC                              | Nylon | (inches)                    | (mm) | 60°C                     | 75°C | 90°C |                                      |                                     |
| 14                        | 19                   | 2.5                           | 0.015                            | 0.005 | 0.113                       | 2.87 | 15                       | 20   | 25   | 8.1                                  | 500'                                |
| 12                        | 19                   | 4                             | 0.016                            | 0.005 | 0.133                       | 3.38 | 20                       | 25   | 30   | 12.2                                 |                                     |
| 10                        | 19                   | 6                             | 0.020                            | 0.005 | 0.166                       | 4.22 | 30                       | 35   | 40   | 19.2                                 |                                     |
| 8                         | 19                   | 10                            | 0.031                            | 0.006 | 0.222                       | 5.64 | 40                       | 50   | 55   | 31.5                                 |                                     |
| 6                         | 19                   | 16                            | 0.031                            | 0.006 | 0.259                       | 6.58 | 55                       | 65   | 75   | 47.8                                 |                                     |
| 4                         | 19                   | 25                            | 0.040                            | 0.006 | 0.327                       | 8.31 | 70                       | 85   | 95   | 76.7                                 |                                     |

\*Note: Allowable ampacity shown above is per the National Electric Code. The above data is approximate and subject to normal manufacturing tolerances.

Please Note: Our prices on wire are closely tied to the market price for copper. This allows us to offer the best savings possible if conditions are favorable; however, it also means that our prices may increase if market conditions warrant.

# Wire - Type THHN/THWN-2

| Type THHN/THWN-2 Wire     |                                 |          |                                                           |                   |                |          |
|---------------------------|---------------------------------|----------|-----------------------------------------------------------|-------------------|----------------|----------|
| Part Number               | Insulation Color                | Gauge    | Description                                               | Spool/Reel Length | Approx. Weight | Price    |
| <a href="#">THHN14BK</a>  | Black                           | 14AWG    | Type THHN/THWN-2 wire, bare copper, 19 strands, 600 Volts | 500'              | 8.1 lbs        | \$97.00  |
| <a href="#">THHN14WH</a>  | White                           |          |                                                           |                   |                | \$97.00  |
| <a href="#">THHN14RD</a>  | Red                             |          |                                                           |                   |                | \$97.00  |
| <a href="#">THHN14BL</a>  | Blue                            |          |                                                           |                   |                | \$97.00  |
| <a href="#">THHN14GN</a>  | Green                           |          |                                                           |                   |                | \$97.00  |
| <a href="#">THHN14YL</a>  | Yellow                          |          |                                                           |                   |                | \$84.00  |
| <a href="#">THHN14OR</a>  | Orange                          |          |                                                           |                   |                | \$97.00  |
| <a href="#">THHN14BN</a>  | Brown                           |          |                                                           |                   |                | \$97.00  |
| <a href="#">THHN14PL</a>  | Purple                          |          |                                                           |                   |                | \$84.00  |
| <a href="#">THHN14GY</a>  | Gray                            |          |                                                           |                   |                | \$97.00  |
| <a href="#">THHN14GYL</a> | Green with Yellow spiral stripe |          |                                                           |                   |                | \$104.00 |
| <a href="#">THHN14BW</a>  | Blue with White spiral stripe   |          |                                                           |                   |                | \$104.00 |
| <a href="#">THHN12BK</a>  | Black                           |          |                                                           |                   |                | 12AWG    |
| <a href="#">THHN12WH</a>  | White                           | \$145.00 |                                                           |                   |                |          |
| <a href="#">THHN12RD</a>  | Red                             | \$145.00 |                                                           |                   |                |          |
| <a href="#">THHN12BL</a>  | Blue                            | \$145.00 |                                                           |                   |                |          |
| <a href="#">THHN12GN</a>  | Green                           | \$145.00 |                                                           |                   |                |          |
| <a href="#">THHN12YL</a>  | Yellow                          | \$145.00 |                                                           |                   |                |          |
| <a href="#">THHN12OR</a>  | Orange                          | \$145.00 |                                                           |                   |                |          |
| <a href="#">THHN12BN</a>  | Brown                           | \$145.00 |                                                           |                   |                |          |
| <a href="#">THHN12GY</a>  | Gray                            | \$145.00 |                                                           |                   |                |          |
| <a href="#">THHN12GYL</a> | Green with Yellow spiral stripe | \$151.00 |                                                           |                   |                |          |
| <a href="#">THHN10BK</a>  | Black                           | 10AWG    | Type THHN/THWN-2 wire, bare copper, 19 strands, 600 Volts |                   | 19.2 lbs       |          |
| <a href="#">THHN10WH</a>  | White                           |          |                                                           |                   |                | \$232.00 |
| <a href="#">THHN10GN</a>  | Green                           |          |                                                           |                   |                | \$232.00 |
| <a href="#">THHN10YL</a>  | Yellow                          |          |                                                           |                   |                | \$232.00 |
| <a href="#">THHN10OR</a>  | Orange                          |          |                                                           |                   |                | \$232.00 |
| <a href="#">THHN10BN</a>  | Brown                           |          |                                                           |                   |                | \$232.00 |
| <a href="#">THHN10GYL</a> | Green with Yellow spiral stripe |          |                                                           |                   |                | \$238.00 |
| <a href="#">THHN8BK</a>   | Black                           | 8AWG     | Type THHN/THWN-2 wire, bare copper, 19 strands, 600 Volts |                   | 31.5 lbs       | \$380.00 |
| <a href="#">THHN8GN</a>   | Green                           |          |                                                           |                   |                | \$380.00 |
| <a href="#">THHN8GYL</a>  | Green with Yellow spiral stripe |          |                                                           |                   |                | \$386.00 |
| <a href="#">THHN6BK</a>   | Black                           | 6AWG     | Type THHN/THWN-2 wire, bare copper, 19 strands, 600 Volts |                   | 47.8 lbs       | \$583.00 |
| <a href="#">THHN4BK</a>   | Black                           | 4AWG     | Type THHN/THWN-2 wire, bare copper, 19 strands, 600 Volts |                   | 76.7 lbs       | \$981.00 |

# Wire - Type THHN

## Gauge Conversion Table

| <b>American Wire Gauge Conversion Chart*</b>                                          |      |         |     |
|---------------------------------------------------------------------------------------|------|---------|-----|
| This cross reference shows equivalent nominal values. Actual cross sections may vary. |      |         |     |
| AWG                                                                                   | mm2  | AWG     | mm2 |
| 30                                                                                    | 0.05 | 6       | 16  |
| 28                                                                                    | 0.08 | 4       | 25  |
| 26                                                                                    | 0.14 | 2       | 35  |
| 24                                                                                    | 0.25 | 1       | 50  |
| 22                                                                                    | 0.34 | 1/0     | 55  |
| 21                                                                                    | 0.38 | 2/0     | 70  |
| 20                                                                                    | 0.50 | 3/0     | 95  |
| 18                                                                                    | 0.75 | 4/0     | 120 |
| 17                                                                                    | 1.00 | 300MCM  | 150 |
| 16                                                                                    | 1.50 | 350MCM  | 185 |
| 14                                                                                    | 2.50 | 500MCM  | 240 |
| 12                                                                                    | 4    | 600MCM  | 300 |
| 10                                                                                    | 6    | 750MCM  | 400 |
| 8                                                                                     | 10   | 1000MCM | 500 |
| *Note: Table shows commercially used equivalent values.                               |      |         |     |