

# Wire - Type THHN

## Applications

Type THHN building wire is intended for general purpose applications as defined by the National Electrical Code (NEC). Type THHN is permitted for new construction or rewiring for 600-volt applications. For applications requiring Type THHN, 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 wire 6AWG and larger Sunlight Resistant in all colors.

THHN wire is sold in 500 foot spools; certain sizes are also available in 2500 foot reels.



## 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

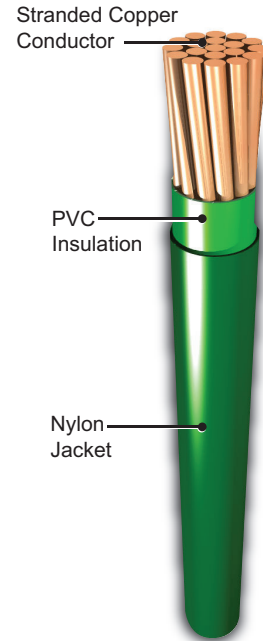
### Jacket

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

## Standards

- UL Standards UL-83, UL-1063, UL-758
- AWM Spec 1316, 1317, 1318, 1319, 1320, 1321
- ASTM Stranding Class B3, B8, B787
- Federal Specification A-A-59544
- Canadian Standards Association C22.2 No. 75
- NEMA WC70/ICEA S-95-658
- ICEA T-29-520 (210,000 Btu/hr) Flame Test
- ARRA 2009; Section 1605 "Buy American" Compliant
- RoHS

## Type THHN Wire



| Type THHN Wire Specifications |                   |   |                               |       |                          |      |                       |      |      |                                     |   |
|-------------------------------|-------------------|---|-------------------------------|-------|--------------------------|------|-----------------------|------|------|-------------------------------------|---|
| Size (AWG or kcmil)           | Number of Strands | Cross-sectional Area (mm <sup>2</sup> ) | Insulation Thickness (inches) |       | Overall Outside Diameter |      | Allowable Ampacities* |      |      | Approximate Weight (lbs) 500'/2500' | Standard Packaging spool/reel                         |
|                               |                   |   | PVC                           | Nylon | (inches)                 | (mm) | 60°C                  | 75°C | 90°C |                                     |   |
| 14                            | 19                | 6.258                                   | 0.015                         | 0.004 | 0.109                    | 2.77 | 15                    | 20   | 25   | 7.8 / 42.2                          | 500' or 2500'. Some colors not offered in 2500' reel. |
| 12                            | 19                | 8.581                                   | 0.015                         | 0.004 | 0.127                    | 3.23 | 20                    | 25   | 30   | 11.7 / 61.4                         |   |
| 10                            | 19                | 13.61                                   | 0.015                         | 0.004 | 0.160                    | 4.07 | 30                    | 35   | 40   | 18.7                                | 500'  |
| 8                             | 19                | 23.61                                   | 0.030                         | 0.005 | 0.212                    | 5.39 | 40                    | 50   | 55   | 31.4                                |   |
| 6                             | 19                | 32.71                                   | 0.030                         | 0.005 | 0.248                    | 6.30 | 55                    | 65   | 75   | 48.5                                |   |
| 4                             | 19                | 53.16                                   | 0.040                         | 0.006 | 0.317                    | 8.06 | 70                    | 85   | 95   | 75.4                                |   |

*\*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.*

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| Type THHN Wire   |                                 |         |  |                   |                |          |
|------------------|---------------------------------|---------|--|-------------------|----------------|----------|
| Part Number      | Insulation Color                | Gauge   | Description  | Spool/Reel Length | Approx. Weight | Price    |
| <b>THHN14BK</b>  | Black                           | 14AWG   | Type THHN wire, bare copper, 19 strands, 600 Volts | 500'              | 7.8 lbs        | \$52.00  |
| <b>THHN14WH</b>  | White                           |         |  |                   |                | \$52.00  |
| <b>THHN14RD</b>  | Red                             |         |  |                   |                | \$52.00  |
| <b>THHN14BL</b>  | Blue                            |         |  |                   |                | \$52.00  |
| <b>THHN14GN</b>  | Green                           |         |  |                   |                | \$52.00  |
| <b>THHN14YL</b>  | Yellow                          |         |  |                   |                | \$52.00  |
| <b>THHN14OR</b>  | Orange                          |         |  |                   |                | \$52.00  |
| <b>THHN14BN</b>  | Brown                           |         |  |                   |                | \$52.00  |
| <b>THHN14PL</b>  | Purple                          |         |  |                   |                | \$52.00  |
| <b>THHN14GY</b>  | Gray                            |         |  |                   |                | \$52.00  |
| <b>THHN14GYL</b> | Green with Yellow spiral stripe |         |  |                   |                | \$60.00  |
| <b>THHN14BW</b>  | Blue with White spiral stripe   |         |  |                   |                | \$60.00  |
| <b>THHN12BK</b>  | Black                           |         |  |                   |                | 12AWG    |
| <b>THHN12WH</b>  | White                           | \$80.00 |  |                   |                |          |
| <b>THHN12RD</b>  | Red                             | \$80.00 |  |                   |                |          |
| <b>THHN12BL</b>  | Blue                            | \$80.00 |  |                   |                |          |
| <b>THHN12GN</b>  | Green                           | \$80.00 |  |                   |                |          |
| <b>THHN12YL</b>  | Yellow                          | \$80.00 |  |                   |                |          |
| <b>THHN12OR</b>  | Orange                          | \$80.00 |  |                   |                |          |
| <b>THHN12BN</b>  | Brown                           | \$80.00 |  |                   |                |          |
| <b>THHN12GY</b>  | Gray                            | \$80.00 |  |                   |                |          |
| <b>THHN12GYL</b> | Green with Yellow spiral stripe | \$88.00 |  |                   |                |          |
| <b>THHN10BK</b>  | Black                           | 10AWG   | Type THHN wire, bare copper, 19 strands, 600 Volts | 500'              | 18.7 lbs       | \$124.00 |
| <b>THHN10WH</b>  | White                           |         |  |                   |                | \$124.00 |
| <b>THHN10GN</b>  | Green                           |         |  |                   |                | \$124.00 |
| <b>THHN10YL</b>  | Yellow                          |         |  |                   |                | \$124.00 |
| <b>THHN10OR</b>  | Orange                          |         |  |                   |                | \$124.00 |
| <b>THHN10BN</b>  | Brown                           |         |  |                   |                | \$124.00 |
| <b>THHN10GYL</b> | Green with Yellow spiral stripe |         |  |                   |                | \$132.00 |
| <b>THHN8BK</b>   | Black                           | 8AWG    | Type THHN wire, bare copper, 19 strands, 600 Volts | 500'              | 31.4 lbs       | \$198.00 |
| <b>THHN8GN</b>   | Green                           |         |  |                   |                | \$198.00 |
| <b>THHN8GYL</b>  | Green with Yellow spiral stripe |         |  |                   |                | \$206.00 |
| <b>THHN6BK</b>   | Black                           | 6AWG    | Type THHN wire, bare copper, 19 strands, 600 Volts | 500'              | 48.5 lbs       | \$305.00 |
| <b>THHN4BK</b>   | Black                           | 4AWG    | Type THHN wire, bare copper, 19 strands, 600 Volts | 500'              | 75.4 lbs       | \$472.00 |

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|-------------------|-------------------------------|-------|--|-------------------|----------------|----------|
| Part Number       | Color                         | Gauge | Description  | Spool/Reel Length | Approx. Weight | Price    |
| <b>THHN14BK25</b> | Black                         | 14AWG | Type THHN wire, bare copper, 19 strands, 600 Volts | 2500'             | 42.2 lbs       | \$260.00 |
| <b>THHN14WH25</b> | White                         |       |  |                   |                | \$260.00 |
| <b>THHN14RD25</b> | Red                           |       |  |                   |                | \$260.00 |
| <b>THHN14BL25</b> | Blue                          |       |  |                   |                | \$260.00 |
| <b>THHN14GN25</b> | Green                         |       |  |                   |                | \$260.00 |
| <b>THHN14YL25</b> | Yellow                        |       |  |                   |                | \$260.00 |
| <b>THHN14OR25</b> | Orange                        |       |  |                   |                | \$260.00 |
| <b>THHN14BN25</b> | Brown                         |       |  |                   |                | \$260.00 |
| <b>THHN14PL25</b> | Purple                        |       |  |                   |                | \$260.00 |
| <b>THHN14GY25</b> | Gray                          |       |  |                   |                | \$260.00 |
| <b>THHN14BW25</b> | Blue with White spiral stripe |       |  |                   |                | \$300.00 |
| <b>THHN12BK25</b> | Black                         | 12AWG | Type THHN wire, bare copper, 19 strands, 600 Volts |                   | 61.4 lbs       | \$400.00 |
| <b>THHN12WH25</b> | White                         |       |  |                   |                | \$400.00 |
| <b>THHN12RD25</b> | Red                           |       |  |                   |                | \$400.00 |
| <b>THHN12BL25</b> | Blue                          |       |  |                   |                | \$400.00 |
| <b>THHN12GN25</b> | Green                         |       |  |                   |                | \$400.00 |
| <b>THHN12YL25</b> | Yellow                        |       |  |                   |                | \$400.00 |
| <b>THHN12OR25</b> | Orange                        |       |  |                   |                | \$400.00 |
| <b>THHN12BN25</b> | Brown                         |       |  |                   |                | \$400.00 |

## Gauge Conversion Table

| <b>American Wire Gauge Conversion Chart*</b>  |                 |         |                 |
|---|-----------------|---------|-----------------|
| This cross reference shows equivalent nominal values. Actual cross sections may vary. |                 |         |                 |
| AWG   | mm <sup>2</sup> | AWG     | mm <sup>2</sup> |
| 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.*