

SIMpull THHN®

600 Volts. Copper Conductor
Thermoplastic Insulation/SIM Nylon Sheath
Heat, Moisture, Gasoline, and Oil Resistant ¹
Also Rated MTW and THWN-2
SIM Technology® for easier pulling



APPLICATIONS

Southwire SIMpull THHN® or THWN-2 conductors are primarily used in conduit and cable trays for services, feeders, and branch circuits in commercial or industrial applications as specified in the 2008 National Electrical Code. When used as Type THHN, or T90 Nylon conductor is suitable for use in dry locations at temperatures not to exceed 90 °C. When used as Type THWN-2 or TWN75, conductor is suitable for use in wet or dry locations at temperatures not to exceed 90 °C or not to exceed 75 °C when exposed to oil. When used as Type MTW, conductor is suitable for use in wet locations or when exposed to oil at temperatures not to exceed 60 °C or dry locations at temperatures not to exceed 90 °C (with ampacity limited to that for 75 °C conductor temperature per NFPA 79). Conductor temperatures not to exceed 105 °C in dry locations when rated AWM and used as appliance wiring material or when used as T90 Nylon. Voltage for all applications is 600 volts. This cable should be installed without application of pulling lubricant.

SPECIFICATIONS

Southwire SIMpull THHN® or THWN-2 or MTW (also AWM) meet or exceed

- All applicable ASTM specifications
- UL Standard 83, 1581, and 1063(MTW)
- CSA
- NOM-ANCE 90° C
- Federal Specification A-A-59544
- The National Electrical Code
- VW-1 - Sizes 14 through 1 AWG
- CT - UL 1685, Sizes 1/0 AWG and larger for CT use
- FT1 - Sizes through 500 kcmil
- T90 Nylon - Sizes through 500 kcmil
- TWN 75 - Sizes through 500 kcmil
- RoHS Compliant
- Sunlight Resistant - Marked and listed in all colors 2 AWG and larger
- NEMA WC 70 Construction Requirements

CONSTRUCTION

Southwire SIMpull THHN® or THWN-2 or MTW copper conductors are annealed (soft) copper, unilay compressed strand, insulated with a tough heat and moisture resistant polyvinyl chloride (PVC), over which a SIM (SLIKQWIK® Infused Membrane) nylon (polyamide) or UL Recognized equal jacket is applied. Available in black, white, red, blue, purple, green, yellow, brown, orange, and gray. Some colors standard, some subject to economic order quantity. THWN-2 available on sizes #8 AWG and larger.

¹ Oil and gasoline resistant II as defined by Underwriters Laboratories.

SIMpull THHN

| Conductor | | Insulation Thickness (mils) | Jacket Thickness (mils) | Nominal O.D. (mils) | | Approx. Net Weight Per 1000 ft. (lbs) | | Allowable Ampacities+ | | | Standard Package |
|---------------------|--------------|-----------------------------|-------------------------|---------------------|------|---------------------------------------|------|-----------------------|-------|-------|------------------|
| Size (AWG or kcmil) | Num. Strands | | | Sol. | Str. | Sol. | Str. | 60 °C | 75 °C | 90 °C | |
| 14 | 19 | 15 | 4 | 102 | 109 | 15 | 16 | 15 | 15 | 15 | DNF |
| 12 | 19 | 15 | 4 | 119 | 128 | 23 | 24 | 20 | 20 | 20 | DNF |
| 10 | 19 | 20 | 4 | 150 | 161 | 36 | 38 | 30 | 30 | 30 | DQF |
| 8 | 19 | 30 | 5 | -- | 213 | -- | 63 | 40 | 50 | 55 | F |
| 6 | 19 | 30 | 5 | -- | 249 | -- | 95 | 55 | 65 | 75 | E |
| 4 | 19 | 40 | 6 | -- | 318 | -- | 152 | 70 | 85 | 95 | C |
| 3 | 19 | 40 | 6 | -- | 346 | -- | 189 | 85 | 100 | 110 | BC |
| 2 | 19 | 40 | 6 | -- | 378 | -- | 234 | 95 | 115 | 130 | C |
| 1 | 19 | 50 | 7 | -- | 435 | -- | 299 | 110 | 130 | 150 | B |
| 1/0 | 19 | 50 | 7 | -- | 474 | -- | 372 | 125 | 150 | 170 | B |
| 2/0 | 19 | 50 | 7 | -- | 518 | -- | 462 | 145 | 175 | 195 | B |
| 3/0 | 19 | 50 | 7 | -- | 568 | -- | 575 | 165 | 200 | 225 | B |
| 4/0 | 19 | 50 | 7 | -- | 624 | -- | 718 | 195 | 230 | 260 | B |
| 250 | 37 | 60 | 8 | -- | 678 | -- | 851 | 215 | 255 | 290 | B |
| 300 | 37 | 60 | 8 | -- | 730 | -- | 1012 | 240 | 285 | 320 | B |
| 350 | 37 | 60 | 8 | -- | 777 | -- | 1174 | 260 | 310 | 350 | B |
| 400 | 37 | 60 | 8 | -- | 821 | -- | 1334 | 280 | 335 | 380 | B |
| 500 | 37 | 60 | 8 | -- | 902 | -- | 1655 | 320 | 380 | 430 | B |
| 600 | 61 | 70 | 9 | -- | 998 | -- | 1987 | 355 | 420 | 475 | C |
| 750 | 61 | 70 | 9 | -- | 1126 | -- | 2464 | 400 | 475 | 535 | C |
| 1000 | 61 | 70 | 9 | -- | 1275 | -- | 3257 | 455 | 545 | 615 | C |

**Sizes 14 - 10 AWG not available with patented SIM Technology® No Lube® jacket.

Sizes 8 and larger available with patented SIM Technology®.

+ Allowable ampacities shown are for general uses as specified by the National Electrical Code, 2008 Edition, section 310.15 unless the equipment is marked for use at higher temperatures the conductor ampacity shall be limited to the following.

60 °C - When terminated to equipment for circuits rated 100 amperes or less or marked for size 14 through 1 AWG conductors. MTW wet locations or when exposed to oil or coolant.

75 °C - When terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than size 1 AWG.

THWN-2 when exposed to oil or coolant. MTW dry locations.

90 °C - THHN dry locations. THWN-2 wet or dry locations. For ampacity derating purposes.

For derating purposes use Article 315 of the National Electrical Code

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