# SIMpull THHN<sup>™</sup> THWN

600 Volts. Copper Conductor Thermoplastic Insulation/ SIM Nylon Sheath Heat, Moisture, Gasoline, and Oil Resistant II 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 National Electrical Code. Voltage for all applications is 600 volts. SIMpull THHN conductors are designed to be used without application of pulling lubricant. Allowable temperatures are as follows:

- THHN or T90 Nylon- Dry locations not to exceed 90° C
- THWN-2- Wet or dry locations not to exceed 90° C or locations not to exceed 75° C when exposed to oil
- TWN75- Wet locations not to exceed 75° C
- MTW- Wet locations or when exposed to oil at temperatures not to exceed 60° C or dry locations not to exceed 90° C (with ampacity limited to that for 75° C conductor temperature per NFPA 79)
- AWM- Dry locations not to exceed 105° C when rated and used as appliance wiring material

## **SPECIFICATIONS**

Southwire SIMpull THHN® or THWN-2 or MTW (also AWM) comply with:

- · ASTM B3, B8 (7,19, 37, 61 Strands), B 787 (19 Wire Combination Unilay Strand)
- UL Standard 83, 1581, and 1063(MTW)
- T90 Nylon/TWN75 sizes through 1000 kcmil CSA C22.2 No. 75
- NOM-ANCE 90° C
  Federal Specification A-A-59544
- National Electrical Code, NFPA 70 · VW-1 Sizes 14 through 1 AWG
- CT rated in sizes 1/0 AWG and larger
- FT1
- · AWM Sizes 14 through 6 AWG. MTW available in stranded only
- NEMA WC-70 Construction Requirements
- RoHS/REACH Compliant

## Construction

Southwire SIMpull THHN or THWN-2 or MTW copper conductors are soft annealed copper. #14 - 4/0 AWG uses a combination unilay strand and 250 kcmil and larger uses a compressed copper strand. The wire is insulated with a tough heat and moisture resistant poly vinyl 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, orange, brown and gray. Some colors are subject to economic order quantity.Marked sunlight resistant in sizes 2 AWG and larger.

## THWN-2 available in sizes 8 AWG and larger .

Sizes 14 - 10 AWG are available with SIMpull Technology only in SIMpull Barrel or CoilPAK configurations.





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## **SIMpull THHN**

| Conductor                 |   | Insulation                   |                     | Nominal | Approx.                      | Allowable Ampacities+ |       |   |                     |
|---------------------------|---|------------------------------|---------------------|---------|------------------------------|-----------------------|-------|---|---------------------|
| Size<br>(AWG or<br>kcmil) | Number<br>of<br>Strands                                 | ThicknessThic<br>(mils) (mil | sThicknes<br>(mils) |         | Weight<br>per 1000'<br>(Ibs) | 60º C                 | 75º C | 90º C   | Standard<br>Package |
| 14*                       | 1   | 15                           | 4                   | 102     | 15                           | 15                    | 15    | 15  | AC                  |
| 12*                       | 1   | 15                           | 4                   | 119     | 23                           | 20                    | 20    | 20  | AC                  |
| 10*                       | 1   | 20                           | 4                   | 150     | 36                           | 30                    | 30    | 30  | AC                  |
| 14*                       | 19  | 15                           | 4                   | 109     | 16                           | 15                    | 15    | 15  | AC                  |
| 12*                       | 19  | 15                           | 4                   | 128     | 24                           | 20                    | 20    | 20  | AC                  |
| 10*                       | 19  | 20                           | 4                   | 161     | 38                           | 30                    | 30    | 30  | AC                  |
| 8                         | 19  | 30                           | 5                   | 213     | 63                           | 40                    | 50    | 55  | ABCD                |
| 6                         | 19  | 30                           | 5                   | 249     | 95                           | 55                    | 65    | 75  | ABCD                |
| 4                         | 19  | 40                           | 6                   | 318     | 152                          | 70                    | 85    | 100   | ABCD                |
| 3                         | 19  | 40                           | 6                   | 346     | 189                          | 85                    | 100   | 115   | ABCD                |
| 2                         | 19  | 40                           | 6                   | 378     | 234                          | 95                    | 115   | 130   | ABCD                |
| 1                         | 19  | 50                           | 7                   | 435     | 299                          | 110                   | 130   | 145   | ABCD                |
| 1/0                       | 19  | 50                           | 7                   | 474     | 372                          | 125                   | 150   | 170   | ABCD                |
| 2/0                       | 19  | 50                           | 7                   | 518     | 462                          | 145                   | 175   | 195   | ABCD                |
| 3/0                       | 19  | 50                           | 7                   | 568     | 575                          | 165                   | 200   | 225   | ABCD                |
| 4/0                       | 19  | 50                           | 7                   | 624     | 718                          | 195                   | 230   | 260   | ABCD                |
| 250                       | 37  | 60                           | 8                   | 694     | 851                          | 215                   | 255   | 290   | ABCD                |
| 300                       | 37  | 60                           | 8                   | 747     | 1012                         | 240                   | 285   | 320   | ABC                 |
| 350                       | 37  | 60                           | 8                   | 797     | 1174                         | 260                   | 310   | 350   | ABC                 |
| 400                       | 37  | 60                           | 8                   | 842     | 1334                         | 280                   | 335   | 380   | ABC                 |
| 500                       | 37  | 60                           | 8                   | 926     | 1655                         | 320                   | 380   | 430   | ABCD                |
| 600                       | 61  | 70                           | 9                   | 1024    | 1987                         | 350                   | 420   | 475   | ABC                 |
| 750                       | 61  | 70                           | 9                   | 1126    | 2464                         | 400                   | 475   | 535   | BC                  |
| 1000                      | 61  | 70                           | 9                   | 1275    | 3257                         | 455                   | 545   | 615   | С                   |
| only in SII               | only in SIMpull® Wire Barrel or CoilPAK configurations. |                              |                     |         |                              |                       |       | Standard Package:<br>A - 2500' Reel<br>B - 1000' Reel |                     |





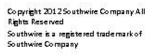
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| of the National Electrical Code Section  | C - 500' Spool |
|--|----------------|
|  | D - 5000' Reel |
| temperatures the conductor shall be limited to the following per NEC 110.14(C).                                    |                |
| 60° C - When terminated to equipment for circuits rated 100 ampers or less or                                      |                |
| marked for 14 - 1 AWG conductors.  |                |
| 75° C - When terminated to equipment for circuits rated over 100 ampers or marked for conductors larger than1 AWG. |                |
| 90° C - THHN dry locations and THWN wet or dry locations for ampacity adjustment                                   |                |
| purposes using NEC section 310.15.   |                |







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