

# SIMPULL THHN®

600 Volts. AlumaFlex® Aluminum (AA-8176) Conductor,  
Thermoplastic Insulation/SIM Nylon Sheath,  
Heat, Moisture, Gasoline, and Oil Resistant II, Sunlight Resistant,  
Also Rated THWN-2. SIM Technology® for Easier Pulling



## APPLICATIONS

Southwire SIMPULL THHN cable with AlumaFlex conductors are primarily used in conduit and cable trays for services, feeders, and branch circuits in commercial or industrial applications as specified in the 2011 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 or coolant. Voltage for all applications is 600 volts. This cable should be installed without application of pulling lubricant.

## SPECIFICATIONS

Southwire SIMPULL THHN conductors comply with:

- ASTM B-800 and B-801
- UL Standard 83
- CSA
- Federal Specification A-A-59544
- VW-1 - Sizes 4 through 1 AWG
- CT - Sizes 1/0 AWG and larger Sizes Rated for CT use.
- FT1 - Sizes 4 AWG through 750 kcmil
- T90 Nylon - Sizes 4 AWG through 750 kcmil
- TWN 75 - Sizes 8 AWG through 750 kcmil
- NEMA WC-70 Construction Requirements
- National Electrical Code/NFPA 70, 2011 Edition
- RoHS/REACH Compliant

## CONSTRUCTION

Southwire SIMPULL THHN conductors are AlumaFlex™ AA-8000 series aluminum alloy compact stranded. Insulated with a tough, heat and moisture resistant polyvinyl chloride (PVC), over which a SIM (SLIKQWIK® Infused Membrane) nylon (polyamide) or UL-listed equal jacket is applied. Phase conductors are available sizes 1/0 AWG-1000 kcmil in black, white, red, blue, brown, orange, yellow and gray. Grounds available sizes 4 AWG-900 kcmil in green. Conductor sizes 1/0 AWG and larger are listed and marked sunlight resistant in colors. Colors available on 2 awg and larger, some are subject to economic order quantity.



Copyright 2012 Southwire Company. All Rights Reserved.  
Southwire is a registered trademark of Southwire Company.

# SIMPULL THHN® Cable with ALUMAFLEX® Conductors

| Conductor           |                   | Insulation Thickness (mils) | Jacket Thickness (mils) | Nominal O.D. (mils) | Approx. Net Weight Per 1000' (lbs.) | Allowable Ampacities+ |      |      | Standad Package |
|---------------------|-------------------|-----------------------------|-------------------------|---------------------|-------------------------------------|-----------------------|------|------|-----------------|
| Size (AWG or kcmil) | Number of Strands |                             |                         |                     |                                     | 60°C                  | 75°C | 90°C |                 |
| 8                   | 7                 | 30                          | 5                       | 204                 | 27                                  | 35                    | 40   | 45   | B               |
| 6                   | 7                 | 30                          | 5                       | 239                 | 38                                  | 40                    | 50   | 60   | C               |
| 4                   | 7                 | 40                          | 6                       | 305                 | 62                                  | 55                    | 65   | 75   | BCD             |
| 2                   | 7                 | 40                          | 6                       | 360                 | 91                                  | 75                    | 90   | 100  | BC              |
| 1                   | 18                | 50                          | 7                       | 413                 | 117                                 | 85                    | 100  | 115  | BC              |
| 1/0                 | 18                | 50                          | 7                       | 450                 | 141                                 | 100                   | 120  | 135  | BCD             |
| 2/0                 | 18                | 50                          | 7                       | 490                 | 172                                 | 115                   | 135  | 150  | BCD             |
| 3/0                 | 18                | 50                          | 7                       | 537                 | 210                                 | 130                   | 155  | 175  | BCD             |
| 4/0                 | 18                | 50                          | 7                       | 589                 | 257                                 | 150                   | 180  | 205  | BCD             |
| 250                 | 22                | 60                          | 8                       | 656                 | 311                                 | 170                   | 205  | 230  | ABC             |
| 300                 | 35                | 60                          | 8                       | 706                 | 365                                 | 190                   | 230  | 255  | BC              |
| 350                 | 35                | 60                          | 8                       | 752                 | 418                                 | 210                   | 250  | 280  | BC              |
| 400                 | 35                | 60                          | 8                       | 795                 | 471                                 | 225                   | 270  | 305  | BC              |
| 500                 | 35                | 60                          | 8                       | 872                 | 576                                 | 260                   | 310  | 350  | BC              |
| 600                 | 58                | 70                          | 9                       | 971                 | 700                                 | 285                   | 340  | 385  | BC              |
| 700                 | 58                | 70                          | 9                       | 1035                | 804                                 | 310                   | 375  | 420  |                 |
| 750                 | 58                | 70                          | 9                       | 1066                | 856                                 | 320                   | 385  | 435  | ABC             |
| 900                 | 58                | 70                          | 9                       | 1139                | 1013                                | 355                   | 425  | 480  |                 |
| 1000                | 58                | 70                          | 9                       | 1218                | 1117                                | 375                   | 445  | 500  |                 |

+ Allowable ampacities shown are for general use as specified by the National Electrical Code 2011 Edition Section 310.15 and 240.4(D).  
 Unless the equipment is marked for use at higher temperatures the conductor ampacities shall be limited to the following per NEC 110.14(C).  
 60 °C - When terminated to equipment for circuits rated 100 amperes or less or marked for 14 through 1 AWG conductors.  
 75 °C - When terminated to equipment for circuits rated over 100 amperes or marked for conductors larger than 1 AWG.  
 90 °C - THHN dry locations and THWN wet or dry locations for ampacity adjustment purposes using NEC section 310.15 .

Package Codes  
 A- 500'  
 B- 2500'  
 C- 1000'  
 D- 5000'

## RECOMMENDED SAMPLE SPECIFICATIONS:

Conductors shall be UL-listed Type THHN and THWN-2, suitable for operation at 600 volts, as specified in the National Electrical Code. Sizes 8 through 1 AWG shall be rated VW-1, larger sizes shall be rated for CT Use. Conductors shall be Alumaflex aluminum alloy, insulated with high-heat and moisture resistant PVC, jacketed with abrasion, moisture, gasoline, and oil resistant nylon or UL-listed equivalent as manufactured by Southwire Company or approved equal.



Copyright 2012 Southwire Company. All Rights Reserved  
 Southwire is a registered trademark of Southwire Company