

SIMPULL THHN® Cable

600 Volts. AlumaFlex® Aluminum (AA-8176) Conductor,
Thermoplastic Insulation/SIM Nylon Sheath,
Heat, Moisture, Gasoline, and Oil Resistant 1, 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 National Electrical Code². 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® cable with AlumaFlex® conductors meets or exceeds all applicable ASTM specifications, UL Standard 83, CSA, Federal Specification A-A-59544, and requirements of the National Electrical Code.

- 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 4 AWG through 750 kcmil
- RoHS Compliant
- Sunlight Resistant - Colors available in sizes 2 AWG and larger

CONSTRUCTION

Southwire SIMPULL THHN® conductors are AlumaFlex® TM 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. Some colors standard, some subject to economic order quantity. Conductor sizes 2 AWG and larger listed and marked sunlight resistant in black only.

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

² 2008 Edition.

SIMPULL THHN

Conductor		Insulation Thickness (mils)	Jacket Thickness (mils)	Nominal O.D. (mils)	Allowable Ampacities+			Approx. Net Weight Per 1000' (lbs.)
Size* (AWG or kcmil)	No.** Strands				60°C	75°C	90°C	
4	7	40	6	305	55	65	75	62
2	7	40	6	360	75	90	100	90
1	18	50	7	413	85	100	115	117
1/0	18	57	7	450	100	120	135	141
2/0	18	57	7	490	115	135	150	172
3/0	18	57	7	537	130	155	175	210
4/0	18	57	7	589	150	180	205	257
250	22	68	8	656	170	205	230	311
300	35	68	8	706	190	230	255	365
350	35	68	8	752	210	250	280	418
400	35	68	8	795	225	270	305	471
500	35	68	8	872	260	310	350	576
600	58	79	9	971	285	340	385	700
700	58	79	9	1035	310	375	420	804
750	58	79	9	1066	320	385	435	856
900	58	79	9	1139	355	425	480	1013
1000	58	79	9	1218	375	445	500	1117

+Allowable Ampacities:

Allowable ampacities shown are for general use as specified by the National Electrical Code, 2008 Edition, section 310.15.

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.

THWN-2 when exposed to oil or coolant.

**For compact-stranded construction, the number of wires as permitted by UL Standard 83 and ASTM B-801 may be reduced as follows:

19-Wire Constructions - 18 Wires Minimum

37-Wire Constructions - 35 Wires Minimum

61-Wire Constructions - 58 Wires Minimum

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 6 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 2008, Southwire Company. All Rights Reserved

©Southwire, SIMpull THHN, NoLube, AlumaFlex, SIM Technology SLIKOWIK, SIMpull T-90 and triple e are registered trademarks of Southwire Company.