

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 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 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.

SIMPULL THHN® Cable with ALUMAFLEX® Conductors

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.



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