

SIMpull THHN® Aluminum THHN Wire & Cable with Alumaflex® Brand Conductors



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

APPLICATIONS

Southwire SIMpull THHN® Aluminum THHN Wire & Cable with Alumaflex® Brand 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.

STANDARDS & REFERENCES

Southwire Aluminum SIMpull THHN® conductors comply with the following:

- 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
- National Electrical Code, NFPA 70, 2011 Edition
- NEMA WC-70 Construction Requirements
- RoHS/Reach Compliant

CONSTRUCTION

Southwire SIMpull THHN® conductors are AlumaFlex® Brand 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. Conductor sizes 1/0 AWG and larger are listed and marked sunlight resistant in colors. Available in black, white, red, blue,



| Conductor | | Insulation Thickness (mils) | Jacket Thickness (mils) | Nominal O.D. (mils) | Net Wt. Per 1000' (lbs.) | Allowable Ampacities+ | | | Standard Package |
|---|----------------|-----------------------------|-------------------------|---------------------|--------------------------|-----------------------|------|------|---|
| Size (AWG or kcm) | No. 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 | C |
| 750 | 58 | 70 | 9 | 1066 | 856 | 320 | 385 | 435 | ABC |
| 900 | 58 | 70 | 9 | 1139 | 1013 | 355 | 425 | 480 | N/A |
| 1000 | 58 | 70 | 9 | 1218 | 1117 | 375 | 445 | 500 | N/A |
| + 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 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-2,500' C-1,000' D-5,000' |

purple, green, yellow, orange, brown, and gray. Also available in striped configurations. Some colors are subject to economic order quantity.

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.

| Conductor | | |
|--|----------------|--|
| Size (AWG or kcmil) | No. of strands | Stock Numbers |
| 8 | 7 | Stock #: N/A |
| 6 | 7 | Stock #: BK:563768, RD:573834, BE:573835, WE:578332, GN:566358 |
| 4 | 7 | Stock #: BK:563769, RD:573544, BE:573833, WE:577628, GN:562211 |
| 2 | 7 | Stock #: BK:563770, RD:573541, BE:573542, WE:563493, BN:587026, OE:587027, YW:587028, GY:578329, GN:562745 |
| 1 | 18 | Stock #: BK:563771, RD:583155, BE:583156, WE:578328, BN:587023, OE:587024, YW:587025, GY:578327, GN:562746 |
| 1/0 | 18 | Stock #: BK:562747, RD:562748, BE:562749, WE:562750, BN:562753, OE:562754, YW:562752, GY:562755, GN:562756, PE:573380 |
| 2/0 | 18 | Stock #: BK:562212, RD:562214, BE:562621, WE:562213, BN:562758, OE:562759, YW:562757, GY:562760, GN:562761, PE:573370 |
| 3/0 | 18 | Stock #: BK:562663, RD:562665, BE:562666, WE:562664, BN:562763, OE:562764, YW:562762, GY:562765, GN:562766, PE:573371 |
| 4/0 | 18 | Stock #: BK:562671, RD:562673, BE:562674, WE:562672, BN:561805, OE:561806, YW:561807, GY:562767, GN:562768, PE:573372 |
| 250 | 22 | Stock #: BK:560444, RD:562626, BE:562627, WE:562625, BN:561863, OE:561864, YW:561865, GY:561866, GN:561867, PE:573373 |
| 300 | 35 | Stock #: BK:562667, RD:562669, BE:562670, WE:562668, BN:562771, OE:562772, YW:562770, GY:562773, GN:562774, PE:573374 |
| 350 | 35 | Stock #: BK:560443, RD:562623, BE:562624, WE:562622, BN:561858, OE:561859, YW:561861, GY:561862, GN:562775, PE:573375 |
| 400 | 35 | Stock #: BK:562677, RD:562776, BE:562778, WE:562779, BN:562781, OE:562782, YW:562780, GY:562783, GN:562699, PE:573376 |
| 500 | 35 | Stock #: BK:560442, RD:562696, BE:562697, WE:562698, BN:561853, OE:561854, YW:561855, GY:561856, GN:561857, PE:573377 |
| 600 | 58 | Stock #: BK:560441, RD:562630, BE:562631, WE:562628, BN:561847, OE:561848, YW:561849, GY:561850, GN:561851, PE:573379 |
| 700 | 58 | Stock #: BK:562689, RD:562690, BE:562691, WE:562692, BN:561843, OE:561844, YW:561846, GY:562693 |
| 750 | 58 | Stock #: BK:562632, RD:562634, BE:562635, WE:562633, BN:561838, OE:561839, YW:561840, GY:561841, GN:561842, PE:573481 |
| 900 | 58 | Stock #: BK:562679, RD:562681, BE:562682, WE:562683, BN:561782, OE:561783, YW:561785, GY:561786, GN:562684 |
| 1000 | 58 | Stock #: BK:562680, BN:564280, OE:564281, YW:564282, GY:564283 |
| Color Abbreviations BK-Black RD-Red BE-Blue WE-White BN-Brown OE-Orange YW-Yellow GY-Grey GN-Green | | |

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