

Copper RHH, RHW, USE



Underground Service Entrance Cable. 600 Volt. Copper Conductors. Cross-Linked Polyethylene (XLP) Insulation. High-Heat, Moisture, and Sunlight Resistant. Sizes 6 Through 4/0 AWG Also Rated SIS.

APPLICATIONS

Southwire® Type RHH or RHW-2 or USE-2 conductors are used with conduit as specified in the 2011 National Electrical Code. When used as Type USE-2, conductor is suitable for use as underground service entrance cable for direct burial at conductor temperatures not to exceed 90°C. When used as RHH, conductor temperatures shall not exceed 90°C in dry locations. When used as RHW-2 or USE-2, conductor temperatures shall not exceed 90°C in wet or dry locations. Voltage rating for RHH or RHW-2 or USE-2 conductors is 600 volts.

STANDARDS & REFERENCES

Southwire® Type RHH or RHW-2 or USE-2 comply with the following:

- ASTM - B3, B8 (7, 19, 37, 61 Strands), B787 (19 Wire Combination Unilay Strand)
- UL Standard 44 for RHH or RHW-2
- UL Standard 854 for USE-2
- Federal Specification A-A-59544
- National Electrical Code, NFPA 70 - 2011 Edition
- NEMA WC 70 Construction Requirements
- RoHS/REACH Compliant

CONSTRUCTION

Southwire® Type RHH or RHW-2 or USE-2 copper conductors are annealed (soft) copper. Insulation is an abrasion, moisture, heat, and sunlight resistant black cross-linked polyethylene (XLP). An optional CT rated product is available upon request for sizes 1/0 and larger.



The Power of Connections.™



Southwire®

Conductor		Insulation Thickness (mils)	Nominal O.D. (mils)	Net Wt. Per 1000' (lbs.)	Allowable Ampacities+			Standard Package
Size (AWG or kcmil)	No. of strands				60°C	75°C	90°C	
14	7	45	160	20	15	15	15	AC
12	7	45	177	29	20	20	20	AC
10	7	45	201	42	30	30	30	AC
8	7	60	256	68	40	50	55	AC
6	7	60	294	101	55	65	75	ABCD
4	7	60	341	154	70	85	95	ABCD
2	7	60	397	235	95	115	130	ABCD
1	19	80	484	309	110	130	145	B
1/0	19	80	520	379	125	150	170	ABC
2/0	19	80	557	472	145	175	195	ABC
3/0	19	80	614	583	165	200	225	ABC
4/0	19	80	673	729	195	230	260	BC
250	37	95	748	863	215	255	290	BC
300	37	95	804	1029	240	285	320	AB
350	37	95	854	1191	260	310	350	AB
400	37	95	899	1352	280	335	380	A
500	37	95	983	1674	320	380	430	AB
600	61	110	1089	2012	350	420	475	A
700	61	110	1158	2332	385	460	520	N/A
750	61	110	1191	2492	400	475	535	C
800	61	110	1223	2642	410	490	555	N/A
900	61	110	1283	2970	435	520	585	N/A
1000	61	110	1340	3288	455	545	615	C

+ 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- 1 AWG conductors.

75° C- When terminated to equipment for circuits rated over 100 amperes or marked for 1/0 AWG or larger conductors.

90° C- Wet or dry locations for ampacity adjustment purposes using NEC section 310.15

Package Codes:
A-2,500'
B-1,000'
C-500'
D-5,000'

RECOMMENDED SAMPLE SPECIFICATIONS:

Conductors shall be UL-listed Type RHH or RHW-2 or USE-2, suitable for operation at 600 volts or less in wet or dry locations, including direct burial in the earth. Conductors shall be annealed copper, cross-linked polyethylene (XLP) insulated, as manufactured by Southwire Company or approved equal.



Conductor		
Size (AWG or kcmil)	No. of strands	Stock Numbers
14	7	Stock #: BK:890700
12	7	Stock #: BK:113431, GN:678573
10	7	Stock #: BK:113449, WE:563196, RD:890146, GN:953539
8	7	Stock #: BK:113456, WE:643957, RD:952689, BE:588683, GN:655993
6	7	Stock #: BK:113464 WE:640110, RD:952671, BE:959726, GN:640128
4	7	Stock #: BK:113472, WE:476565, RD:476549, BE:643577, GN:952663, OE:588746
2	7	Stock #: BK:113498, WE:476523, RD:476531, BE:643544, GN:958009
1	19	Stock #: BK:113506
1/0	19	Stock #: BK:113514, WE:643973
2/0	19	Stock #: BK:113522, GN:591255
3/0	19	Stock #: BK:113530
4/0	19	Stock #: BK:113548, GN:587561
250	37	Stock #: BK:113555
300	37	Stock #: BK:113563
350	37	Stock #: BK:113571
400	37	Stock #: BK:113589
500	37	Stock #: BK:113597, BN:580165, OE:580166, YW:580168, GY:580169
600	61	Stock #: BK:113605
700	61	Stock #: N/A
750	61	Stock #: BK:113613
800	61	Stock #: N/A
900	61	Stock #: N/A
1000	61	Stock #: BK:113647
Color Abbreviations		
BK-Black BN-Brown OE-Orange YW-Yellow GY-Grey WE-White RD-Red BE-Blue GN-Green		



Copper RHH, RHW, USE



Underground Service Entrance Cable. 600 Volt. Copper Conductors. Cross-Linked Polyethylene (XLP) Insulation. High-Heat, Moisture, and Sunlight Resistant. Sizes 6 Through 4/0 AWG Also Rated SIS.

APPLICATIONS

Southwire® Type RHH or RHW-2 or USE-2 conductors are used with conduit as specified in the 2011 National Electrical Code. When used as Type USE-2, conductor is suitable for use as underground service entrance cable for direct burial at conductor temperatures not to exceed 90°C. When used as RHH, conductor temperatures shall not exceed 90°C in dry locations. When used as RHW-2 or USE-2, conductor temperatures shall not exceed 90°C in wet or dry locations. Voltage rating for RHH or RHW-2 or USE-2 conductors is 600 volts.

STANDARDS & REFERENCES

Southwire® Type RHH or RHW-2 or USE-2 comply with the following:

- ASTM - B3, B8 (7, 19, 37, 61 Strands), B787 (19 Wire Combination Unilay Strand)
- UL Standard 44 for RHH or RHW-2
- UL Standard 854 for USE-2
- Federal Specification A-A-59544
- National Electrical Code, NFPA 70 - 2011 Edition
- NEMA WC 70 Construction Requirements
- RoHS/REACH Compliant

CONSTRUCTION

Southwire® Type RHH or RHW-2 or USE-2 copper conductors are annealed (soft) copper. Insulation is an abrasion, moisture, heat, and sunlight resistant black cross-linked polyethylene (XLP). An optional CT rated product is available upon request for sizes 1/0 and larger.



Conductor		Insulation Thickness (mils)	Nominal O.D. (mils)	Net Wt. Per 1000' (lbs.)	Allowable Ampacities+			Standard Package
Size (AWG or kcmil)	No. of strands				60°C	75°C	90°C	
14	7	45	160	20	15	15	15	AC
12	7	45	177	29	20	20	20	AC
10	7	45	201	42	30	30	30	AC
8	7	60	256	68	40	50	55	AC
6	7	60	294	101	55	65	75	ABCD
4	7	60	341	154	70	85	95	ABCD
2	7	60	397	235	95	115	130	ABCD
1	19	80	484	309	110	130	145	B
1/0	19	80	520	379	125	150	170	ABC
2/0	19	80	557	472	145	175	195	ABC
3/0	19	80	614	583	165	200	225	ABC
4/0	19	80	673	729	195	230	260	BC
250	37	95	748	863	215	255	290	BC
300	37	95	804	1029	240	285	320	AB
350	37	95	854	1191	260	310	350	AB
400	37	95	899	1352	280	335	380	A
500	37	95	983	1674	320	380	430	AB
600	61	110	1089	2012	350	420	475	A
700	61	110	1158	2332	385	460	520	N/A
750	61	110	1191	2492	400	475	535	C
800	61	110	1223	2642	410	490	555	N/A
900	61	110	1283	2970	435	520	585	N/A
1000	61	110	1340	3288	455	545	615	C

<p>+ Allowable ampacities shown are for general use as specified by the National Electrical Code, 2011 Edition, section 310.15 and 240.4(D)</p> <p>Unless the equipment is marked for use at higher temperatures the conductor ampacities shall be limited to the following per NEC 110.14(C)</p> <p>60° C- When terminated to equipment for circuits rated 100 amperes or less or marked for 14- 1 AWG conductors.</p> <p>75° C- When terminated to equipment for circuits rated over 100 amperes or marked for 1/0 AWG or larger conductors.</p> <p>90° C- Wet or dry locations for ampacity adjustment purposes using NEC section 310.15</p>	<p>Package Codes: A-2,500' B-1,000' C-500' D-5,000'</p>
---	---

RECOMMENDED SAMPLE SPECIFICATIONS:

Conductors shall be UL-listed Type RHH or RHW-2 or USE-2, suitable for operation at 600 volts or less in wet or dry locations, including direct burial in the earth. Conductors shall be annealed copper, cross-linked polyethylene (XLP) insulated, as manufactured by Southwire Company or approved equal.

Conductor		
Size (AWG or kcmil)	No. of strands	Stock Numbers
14	7	Stock #: BK:890700
12	7	Stock #: BK:113431, GN:678573
10	7	Stock #: BK:113449, WE:563196, RD:890146, GN:953539
8	7	Stock #: BK:113456, WE:643957, RD:952689, BE:588683, GN:655993
6	7	Stock #: BK:113464 WE:640110, RD:952671, BE:959726, GN:640128
4	7	Stock #: BK:113472, WE:476565, RD:476549, BE:643577, GN:952663, OE:588746
2	7	Stock #: BK:113498, WE:476523, RD:476531, BE:643544, GN:958009
1	19	Stock #: BK:113506
1/0	19	Stock #: BK:113514, WE:643973
2/0	19	Stock #: BK:113522, GN:591255
3/0	19	Stock #: BK:113530
4/0	19	Stock #: BK:113548, GN:587561
250	37	Stock #: BK:113555
300	37	Stock #: BK:113563
350	37	Stock #: BK:113571
400	37	Stock #: BK:113589
500	37	Stock #: BK:113597, BN:580165, OE:580166, YW:580168, GY:580169
600	61	Stock #: BK:113605
700	61	Stock #: N/A
750	61	Stock #: BK:113613
800	61	Stock #: N/A
900	61	Stock #: N/A
1000	61	Stock #: BK:113647
Color Abbreviations		
BK-Black BN-Brown OE-Orange YW-Yellow GY-Grey WE-White RD-Red BE-Blue GN-Green		

