RW90 Copper Circuit Sizes (14, 12 & 10 AWG)

Copper Conductor, 600V, 90°C MAX, -40°C MIN. All Sizes and Colors are Sunlight Resistant.

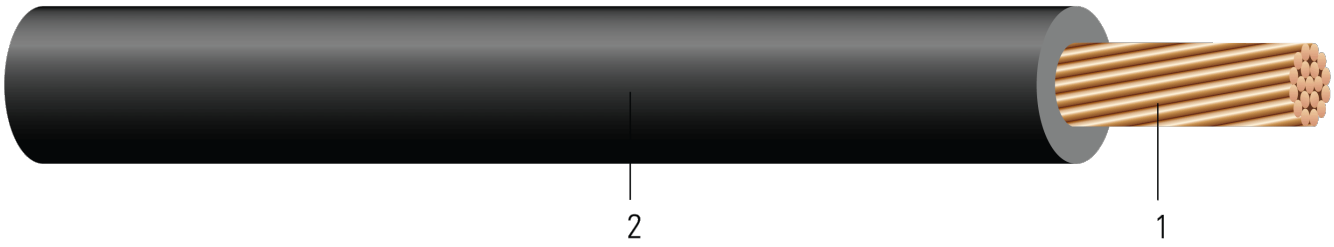

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B compressed stranded bare copper per ASTM B3 and ASTM B8
2. **Insulation:** Cross Linked Polyethylene (XLPE)

APPLICATIONS AND FEATURES:

Single copper conductor with low temperature, moisture resisting XLPE (cross linked polyethylene) insulation. All sizes are Sunlight Resistant in all colors and packaging. This product meets the current RoHS requirements. No lead is added or used in manufacturing.

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- CSA C22.2 No. 38 Thermoset-insulated wires and cables
- CSA SUN RES - for Sunlight Resistant rating

SAMPLE PRINT LEGEND:

SOUTHWIRE& LL90458 (CSA) 12 AWG CU RW90 XLPE 600 VOLTS (-40{D}C) SR

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Strand	Insul. Thickness	Approx. OD	Approx. Weight	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity In Raceway 90°C†
	AWG/ Kcmil	No.	mil	inch	lb/1000ft	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp
956110◊	14	Solid	30	0.128	16	0.500	32	2.631	3.170	0.058	25
956177◊	14	Solid	30	0.128	16	0.500	32	2.631	3.170	0.058	25
956144◊	14	Solid	30	0.128	16	0.500	32	2.631	3.170	0.058	25
956250◊	14	Solid	30	0.128	16	0.500	32	2.631	3.170	0.058	25
956276◊	14	Solid	30	0.128	16	0.500	32	2.631	3.170	0.058	25
956201◊	14	Solid	30	0.128	16	0.500	32	2.631	3.170	0.058	25
956235◊	14	Solid	30	0.128	16	0.500	32	2.631	3.170	0.058	25
557917◊	14	Solid	30	0.128	16	0.500	32	2.631	3.170	0.058	25
955617◊	14	7	30	0.135	17	0.500	32	2.631	3.170	0.058	25
955245◊	14	7	30	0.135	17	0.500	32	2.631	3.170	0.058	25
955666◊	14	7	30	0.135	17	0.500	32	2.631	3.170	0.058	25
955708◊	14	7	30	0.135	17	0.500	32	2.631	3.170	0.058	25
951731◊	14	7	30	0.135	17	0.500	32	2.631	3.170	0.058	25
557924◊	14	7	30	0.135	17	0.500	32	2.631	3.170	0.058	25
955682◊	14	7	30	0.135	17	0.500	32	2.631	3.170	0.058	25
557861◊	12	Solid	30	0.144	24	0.600	52	1.662	2.002	0.054	30
956102◊	12	Solid	30	0.144	24	0.600	52	1.662	2.002	0.054	30
956169◊	12	Solid	30	0.144	24	0.600	52	1.662	2.002	0.054	30
956227◊	12	Solid	30	0.144	24	0.600	52	1.662	2.002	0.054	30
956243◊	12	Solid	30	0.144	24	0.600	52	1.662	2.002	0.054	30
956268◊	12	Solid	30	0.144	24	0.600	52	1.662	2.002	0.054	30
956136◊	12	Solid	30	0.144	24	0.600	52	1.662	2.002	0.054	30
956193◊	12	Solid	30	0.144	24	0.600	52	1.662	2.002	0.054	30
955609◊	12	7	30	0.153	25	0.600	52	1.662	2.002	0.054	30
955658◊	12	7	30	0.153	25	0.600	52	1.662	2.002	0.054	30
955674◊	12	7	30	0.153	25	0.600	52	1.662	2.002	0.054	30
955237◊	12	7	30	0.153	25	0.600	52	1.662	2.002	0.054	30
557923◊	12	7	30	0.153	25	0.600	52	1.662	2.002	0.054	30
955690◊	12	7	30	0.153	25	0.600	52	1.662	2.002	0.054	30
951749	12	7	30	0.153	25	0.600	32	1.662	2.002	0.054	30
956151◊	10	Solid	30	0.165	37	0.700	83	1.040	1.253	0.050	40
557930◊	10	Solid	30	0.165	37	0.700	83	1.040	1.253	0.050	40
956094◊	10	Solid	30	0.165	37	0.700	83	1.040	1.253	0.050	40
557929◊	10	Solid	30	0.165	37	0.700	83	1.040	1.253	0.050	40
956128◊	10	Solid	30	0.165	37	0.700	83	1.040	1.253	0.050	40
956185◊	10	Solid	30	0.165	37	0.700	83	1.040	1.253	0.050	40
956219◊	10	Solid	30	0.165	37	0.700	83	1.040	1.253	0.050	40
951756	10	7	30	0.175	38	0.700	52	1.040	1.253	0.050	40
955641◊	10	7	30	0.177	39	0.700	83	1.040	1.253	0.050	40

Stock Number	Cond. Size	Strand	Insul. Thickness	Approx. OD	Approx. Weight	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity In Raceway 90°C†
	AWG/ Kcmil	No.	mil	inch	lb/1000ft	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp
557921◊	10	7	30	0.177	39	0.700	83	1.040	1.253	0.050	40
955591◊	10	7	30	0.177	39	0.700	83	1.040	1.253	0.050	40
557920◊	10	7	30	0.177	39	0.700	83	1.040	1.253	0.050	40
557922◊	10	7	30	0.177	39	0.700	83	1.040	1.253	0.050	40
955229◊	10	7	30	0.177	39	0.700	83	1.040	1.253	0.050	40

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
†Ampacities derived from the 2015 Canadian Electrical Code - Table 1 - For single conductor in free air and based on an ambient temperature of 30°C. - Table 2 - for Cable in Conduit. Not more than 3 aluminum conductors in a conduit and based on an ambient temperature of 30°C.

Table 2 – Weights and Measurements (Metric)

Stock Number	Cond. Size	Strand	Insul. Thickness	Approx. OD	Approx. Weight	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity In Raceway 90°C
	AWG/ Kcmil	No.	mm	mm	kg/km	mm	newton	Ω/km	Ω/km	Ω/km	Amp
956110◊	14	Solid	0.76	3.25	24	12.70	142	8.63	10.40	0.1903	25
956177◊	14	Solid	0.76	3.25	24	12.70	142	8.63	10.40	0.1903	25
956144◊	14	Solid	0.76	3.25	24	12.70	142	8.63	10.40	0.1903	25
956250◊	14	Solid	0.76	3.25	24	12.70	142	8.63	10.40	0.1903	25
956276◊	14	Solid	0.76	3.25	24	12.70	142	8.63	10.40	0.1903	25
956201◊	14	Solid	0.76	3.25	24	12.70	142	8.63	10.40	0.1903	25
956235◊	14	Solid	0.76	3.25	24	12.70	142	8.63	10.40	0.1903	25
557917◊	14	Solid	0.76	3.25	24	12.70	142	8.63	10.40	0.1903	25
955617◊	14	7	0.76	3.43	25	12.70	142	8.63	10.40	0.1903	25
955245◊	14	7	0.76	3.43	25	12.70	142	8.63	10.40	0.1903	25
955666◊	14	7	0.76	3.43	25	12.70	142	8.63	10.40	0.1903	25
955708◊	14	7	0.76	3.43	25	12.70	142	8.63	10.40	0.1903	25
951731◊	14	7	0.76	3.43	25	12.70	142	8.63	10.40	0.1903	25
557924◊	14	7	0.76	3.43	25	12.70	142	8.63	10.40	0.1903	25
955682◊	14	7	0.76	3.43	25	12.70	142	8.63	10.40	0.1903	25
557861◊	12	Solid	0.76	3.66	36	15.24	231	5.45	6.57	0.1772	30
956102◊	12	Solid	0.76	3.66	36	15.24	231	5.45	6.57	0.1772	30
956169◊	12	Solid	0.76	3.66	36	15.24	231	5.45	6.57	0.1772	30
956227◊	12	Solid	0.76	3.66	36	15.24	231	5.45	6.57	0.1772	30
956243◊	12	Solid	0.76	3.66	36	15.24	231	5.45	6.57	0.1772	30
956268◊	12	Solid	0.76	3.66	36	15.24	231	5.45	6.57	0.1772	30
956136◊	12	Solid	0.76	3.66	36	15.24	231	5.45	6.57	0.1772	30
956193◊	12	Solid	0.76	3.66	36	15.24	231	5.45	6.57	0.1772	30
955609◊	12	7	0.76	3.89	37	15.24	231	5.45	6.57	0.1772	30
955658◊	12	7	0.76	3.89	37	15.24	231	5.45	6.57	0.1772	30
955674◊	12	7	0.76	3.89	37	15.24	231	5.45	6.57	0.1772	30
955237◊	12	7	0.76	3.89	37	15.24	231	5.45	6.57	0.1772	30
557923◊	12	7	0.76	3.89	37	15.24	231	5.45	6.57	0.1772	30
955690◊	12	7	0.76	3.89	37	15.24	231	5.45	6.57	0.1772	30
951749	12	7	0.76	3.89	37	15.24	142	5.45	6.57	0.1772	30
956151◊	10	Solid	0.76	4.19	55	17.78	369	3.41	4.11	0.1640	40
557930◊	10	Solid	0.76	4.19	55	17.78	369	3.41	4.11	0.1640	40
956094◊	10	Solid	0.76	4.19	55	17.78	369	3.41	4.11	0.1640	40
557929◊	10	Solid	0.76	4.19	55	17.78	369	3.41	4.11	0.1640	40
956128◊	10	Solid	0.76	4.19	55	17.78	369	3.41	4.11	0.1640	40
956185◊	10	Solid	0.76	4.19	55	17.78	369	3.41	4.11	0.1640	40
956219◊	10	Solid	0.76	4.19	55	17.78	369	3.41	4.11	0.1640	40
951756	10	7	0.76	4.44	57	17.78	231	3.41	4.11	0.1640	40
955641◊	10	7	0.76	4.50	58	17.78	369	3.41	4.11	0.1640	40

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	AWG/ Kcmil	No.	mm	mm	kg/km	mm	newton	Ω/km	Ω/km	Ω/km	Amp
557921◊	10	7	0.76	4.50	58	17.78	369	3.41	4.11	0.1640	40
955591◊	10	7	0.76	4.50	58	17.78	369	3.41	4.11	0.1640	40
557920◊	10	7	0.76	4.50	58	17.78	369	3.41	4.11	0.1640	40
557922◊	10	7	0.76	4.50	58	17.78	369	3.41	4.11	0.1640	40
955229◊	10	7	0.76	4.50	58	17.78	369	3.41	4.11	0.1640	40

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◊ Cable marked with this symbol is a standard stock item
†Ampacities derived from the 2015 Canadian Electrical Code - Table 1 - For single conductor in free air and based on an ambient temperature of 30°C. - Table 2 - for Cable in Conduit. Not more than 3 aluminum conductors in a conduit and based on an ambient temperature of 30°C.

Table 3 - Stock Code Colors

Size (Strand)	Color	Stock Number
14 (Solid)	BK	956110
14 (Solid)	RD	956177
14 (Solid)	WE	956144
14 (Solid)	BN	956250
14 (Solid)	YW	956276
14 (Solid)	GN	956201
14 (Solid)	BE	956235
14 (Solid)	OE	557917
14 (7)	GN	955617
14 (7)	RD	955245
14 (7)	BE	955666
14 (7)	YW	955708
14 (7)	BK	951731
14 (7)	OE	557924
14 (7)	BN	955682
12 (Solid)	OE	557861
12 (Solid)	BK	956102
12 (Solid)	RD	956169
12 (Solid)	BE	956227
12 (Solid)	BN	956243
12 (Solid)	YW	956268
12 (Solid)	WE	956136
12 (Solid)	GN	956193
12 (7)	BK	951749
12 (7)	GN	955609
12 (7)	BE	955658
12 (7)	BN	955674
12 (7)	RD	955237
12 (7)	OE	557923
12 (7)	YW	955690
10 (Solid)	RD	956151
10 (Solid)	OE	557930
10 (Solid)	BK	956094
10 (Solid)	BN	557929
10 (Solid)	WE	956128
10 (Solid)	GN	956185
10 (Solid)	BE	956219
10 (7)	BK	951756
10 (7)	BE	955641
10 (7)	OE	557921
10 (7)	GN	955591
10 (7)	BN	557920
10 (7)	YW	557922
10 (7)	RD	955229