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

Copper Conductor, 600V, 90°C MAX, -40°C MIN. Sunlight Resistant in Black Only.

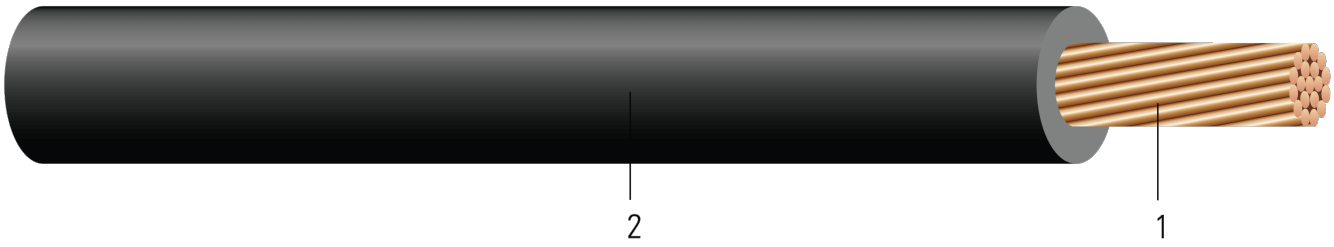

Image not to scale. See Table 1 for dimensions.

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. Sunlight Resistant in black only. 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°C) SR

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Table 1 – Weights and Measurements

Stock Number	Cond. Size	Strand	Insul. Thickness	Insulation Color	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	BK	0.128	17	0.5	32	2.631	3.265	0.058	25
956177◊	14	SOLID	30	RD	0.128	17	0.5	32	2.631	3.265	0.058	25
557917◊	14	SOLID	30	OE	0.128	17	0.5	32	2.631	3.265	0.058	25
956144◊	14	SOLID	30	WE	0.128	17	0.5	32	2.631	3.265	0.058	25
956250◊	14	SOLID	30	BN	0.128	17	0.5	32	2.631	3.265	0.058	25
956235◊	14	SOLID	30	BE	0.128	17	0.5	32	2.631	3.265	0.058	25
956201◊	14	SOLID	30	GN	0.128	17	0.5	32	2.631	3.265	0.058	25
956276◊	14	SOLID	30	YW	0.128	17	0.5	32	2.631	3.265	0.058	25
955666◊	14	7	30	BE	0.135	18	0.5	32	2.631	3.265	0.058	25
955245◊	14	7	30	RD	0.135	18	0.5	32	2.631	3.265	0.058	25
955617◊	14	7	30	GN	0.135	18	0.5	32	2.631	3.265	0.058	25
955708◊	14	7	30	YW	0.135	18	0.5	32	2.631	3.265	0.058	25
951731◊	14	7	30	BK	0.135	18	0.5	32	2.631	3.265	0.058	25
557924◊	14	7	30	OE	0.135	18	0.5	32	2.631	3.265	0.058	25
955682◊	14	7	30	BN	0.135	18	0.5	32	2.631	3.265	0.058	25
955351◊	14	7	30	WE	0.135	18	0.5	32	2.631	3.265	0.058	25
956227◊	12	SOLID	30	BE	0.145	25	0.6	52	1.662	2.063	0.054	30
956243◊	12	SOLID	30	BN	0.145	25	0.6	52	1.662	2.063	0.054	30
956169◊	12	SOLID	30	RD	0.145	25	0.6	52	1.662	2.063	0.054	30
956102◊	12	SOLID	30	BK	0.145	25	0.6	52	1.662	2.063	0.054	30
956268◊	12	SOLID	30	YW	0.145	25	0.6	52	1.662	2.063	0.054	30
956136◊	12	SOLID	30	WE	0.145	25	0.6	52	1.662	2.063	0.054	30
956193◊	12	SOLID	30	GN	0.145	25	0.6	52	1.662	2.063	0.054	30
557861◊	12	SOLID	30	OE	0.145	25	0.6	52	1.662	2.063	0.054	30
955690◊	12	7	30	YW	0.153	26	0.6	52	1.662	2.063	0.054	30
951749	12	7	30	BK	0.153	26	0.6	32	1.662	2.063	0.054	30
955658◊	12	7	30	BE	0.153	26	0.6	52	1.662	2.063	0.054	30
955674◊	12	7	30	BN	0.153	26	0.6	52	1.662	2.063	0.054	30
955237◊	12	7	30	RD	0.153	26	0.6	52	1.662	2.063	0.054	30
557923◊	12	7	30	OE	0.153	26	0.6	52	1.662	2.063	0.054	30
955609◊	12	7	30	GN	0.153	26	0.6	52	1.662	2.063	0.054	30
955344◊	12	7	30	WE	0.153	26	0.6	52	1.662	2.063	0.054	30
557931◊	10	SOLID	30	YW	0.166	37	0.7	83	1.04	1.291	0.05	40
956219◊	10	SOLID	30	BE	0.166	37	0.7	83	1.04	1.291	0.05	40
956185◊	10	SOLID	30	GN	0.166	37	0.7	83	1.04	1.291	0.05	40
956128◊	10	SOLID	30	WE	0.166	37	0.7	83	1.04	1.291	0.05	40
557929◊	10	SOLID	30	BN	0.166	37	0.7	83	1.04	1.291	0.05	40
956094◊	10	SOLID	30	BK	0.166	37	0.7	83	1.04	1.291	0.05	40
557930◊	10	SOLID	30	OE	0.166	37	0.7	83	1.04	1.291	0.05	40

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Stock Number	Cond. Size	Strand	Insul. Thickness	Insulation Color	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
956151◊	10	SOLID	30	RD	0.166	37	0.7	83	1.04	1.291	0.05	40
955591◊	10	7	30	GN	0.177	39	0.7	83	1.04	1.291	0.05	40
557921◊	10	7	30	OE	0.177	39	0.7	83	1.04	1.291	0.05	40
955641◊	10	7	30	BE	0.177	39	0.7	83	1.04	1.291	0.05	40
557920◊	10	7	30	BN	0.177	39	0.7	83	1.04	1.291	0.05	40
557922◊	10	7	30	YW	0.177	39	0.7	83	1.04	1.291	0.05	40
955229◊	10	7	30	RD	0.177	39	0.7	83	1.04	1.291	0.05	40
955336◊	10	7	30	WE	0.177	39	0.7	83	1.04	1.291	0.05	40
951756	10	7	30	BK	0.177	39	0.7	52	1.04	1.291	0.05	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.

TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

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Table 2 – Weights and Measurements (Metric)

Stock Number	Cond. Size	Strand	Insul. Thickness	Insulation Color	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	BK	3.25	25	12.70	142	8.63	10.71	0.1903	25
956177◊	14	SOLID	0.76	RD	3.25	25	12.70	142	8.63	10.71	0.1903	25
557917◊	14	SOLID	0.76	OE	3.25	25	12.70	142	8.63	10.71	0.1903	25
956144◊	14	SOLID	0.76	WE	3.25	25	12.70	142	8.63	10.71	0.1903	25
956250◊	14	SOLID	0.76	BN	3.25	25	12.70	142	8.63	10.71	0.1903	25
956235◊	14	SOLID	0.76	BE	3.25	25	12.70	142	8.63	10.71	0.1903	25
956201◊	14	SOLID	0.76	GN	3.25	25	12.70	142	8.63	10.71	0.1903	25
956276◊	14	SOLID	0.76	YW	3.25	25	12.70	142	8.63	10.71	0.1903	25
955666◊	14	7	0.76	BE	3.43	27	12.70	142	8.63	10.71	0.1903	25
955245◊	14	7	0.76	RD	3.43	27	12.70	142	8.63	10.71	0.1903	25
955617◊	14	7	0.76	GN	3.43	27	12.70	142	8.63	10.71	0.1903	25
955708◊	14	7	0.76	YW	3.43	27	12.70	142	8.63	10.71	0.1903	25
951731◊	14	7	0.76	BK	3.43	27	12.70	142	8.63	10.71	0.1903	25
557924◊	14	7	0.76	OE	3.43	27	12.70	142	8.63	10.71	0.1903	25
955682◊	14	7	0.76	BN	3.43	27	12.70	142	8.63	10.71	0.1903	25
955351◊	14	7	0.76	WE	3.43	27	12.70	142	8.63	10.71	0.1903	25
956227◊	12	SOLID	0.76	BE	3.68	37	15.24	231	5.45	6.77	0.1772	30
956243◊	12	SOLID	0.76	BN	3.68	37	15.24	231	5.45	6.77	0.1772	30
956169◊	12	SOLID	0.76	RD	3.68	37	15.24	231	5.45	6.77	0.1772	30
956102◊	12	SOLID	0.76	BK	3.68	37	15.24	231	5.45	6.77	0.1772	30
956268◊	12	SOLID	0.76	YW	3.68	37	15.24	231	5.45	6.77	0.1772	30
956136◊	12	SOLID	0.76	WE	3.68	37	15.24	231	5.45	6.77	0.1772	30
956193◊	12	SOLID	0.76	GN	3.68	37	15.24	231	5.45	6.77	0.1772	30
557861◊	12	SOLID	0.76	OE	3.68	37	15.24	231	5.45	6.77	0.1772	30
955690◊	12	7	0.76	YW	3.89	39	15.24	231	5.45	6.77	0.1772	30
951749	12	7	0.76	BK	3.89	39	15.24	142	5.45	6.77	0.1772	30
955658◊	12	7	0.76	BE	3.89	39	15.24	231	5.45	6.77	0.1772	30
955674◊	12	7	0.76	BN	3.89	39	15.24	231	5.45	6.77	0.1772	30
955237◊	12	7	0.76	RD	3.89	39	15.24	231	5.45	6.77	0.1772	30
557923◊	12	7	0.76	OE	3.89	39	15.24	231	5.45	6.77	0.1772	30
955609◊	12	7	0.76	GN	3.89	39	15.24	231	5.45	6.77	0.1772	30
955344◊	12	7	0.76	WE	3.89	39	15.24	231	5.45	6.77	0.1772	30
557931◊	10	SOLID	0.76	YW	4.22	55	17.78	369	3.41	4.24	0.1640	40
956219◊	10	SOLID	0.76	BE	4.22	55	17.78	369	3.41	4.24	0.1640	40
956185◊	10	SOLID	0.76	GN	4.22	55	17.78	369	3.41	4.24	0.1640	40
956128◊	10	SOLID	0.76	WE	4.22	55	17.78	369	3.41	4.24	0.1640	40
557929◊	10	SOLID	0.76	BN	4.22	55	17.78	369	3.41	4.24	0.1640	40
956094◊	10	SOLID	0.76	BK	4.22	55	17.78	369	3.41	4.24	0.1640	40
557930◊	10	SOLID	0.76	OE	4.22	55	17.78	369	3.41	4.24	0.1640	40

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Stock Number	Cond. Size	Strand	Insul. Thickness	Insulation Color	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
956151◊	10	SOLID	0.76	RD	4.22	55	17.78	369	3.41	4.24	0.1640	40
955591◊	10	7	0.76	GN	4.50	58	17.78	369	3.41	4.24	0.1640	40
557921◊	10	7	0.76	OE	4.50	58	17.78	369	3.41	4.24	0.1640	40
955641◊	10	7	0.76	BE	4.50	58	17.78	369	3.41	4.24	0.1640	40
557920◊	10	7	0.76	BN	4.50	58	17.78	369	3.41	4.24	0.1640	40
557922◊	10	7	0.76	YW	4.50	58	17.78	369	3.41	4.24	0.1640	40
955229◊	10	7	0.76	RD	4.50	58	17.78	369	3.41	4.24	0.1640	40
955336◊	10	7	0.76	WE	4.50	58	17.78	369	3.41	4.24	0.1640	40
951756	10	7	0.76	BK	4.50	58	17.78	231	3.41	4.24	0.1640	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.
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

Table 3 - Stock Code Colors

Size (Strand)	Black	Red	Blue	White	Brown	Orange	Yellow	Green
14 (Solid)	956110	956177	956235	956144	956250	557917	956276	956201
14 (7)	951731	955245	955666	955351	955682	557924	955708	955617
12 (Solid)	956102	956169	956227	956136	956243	557861	956268	956193
12 (7)	951749	955237	955658	955344	955674	557923	955690	955609
10 (Solid)	956094	956151	956219	956128	557929	557930	557931	956185
10 (7)	951756	955229	955641	955336	557920	557921	557922	955591

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