CSA TECK 90 CU 1000V NON-SHIELDED XLPE POWER CABLE

1000V, Non-Shielded, XLPE Insulation, FT4, -40°C, HL (Hazardous Locations), 90°C

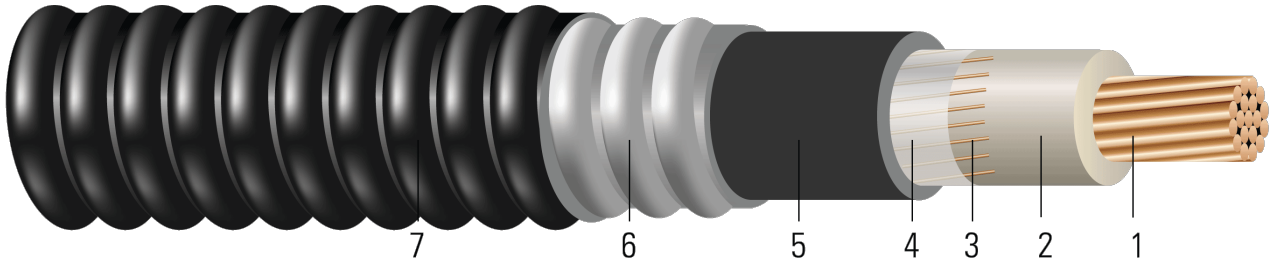


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Class B stranded compressed copper in accordance with ASTM B3 and ASTM B8
2. **Insulation:** XLPE (Cross Linked Polyethylene), Minimum Average Thickness: 4/0 = 0.08 inches (2.03 mm), 250 kcmil to 1000 kcmil = 0.090 inches (2.3 mm), 90°C
3. **Concentric Bonding Conductors:** Class B, concentric bare copper wire serve
4. **Binder:** Polypropylene Separator
5. **Inner Jacket:** Black PVC, Minumum average thickness - 4/0 = 0.050" (1.27mm), 250 kcmil to 1000 kcmil = 0.060" (1.5 mm)
6. **Armor:** Aluminum Interlocked Armour (AIA)
7. **Overall Jacket:** Black PVC (optional colours available), Minimum Thickness: 4/0 to 400 kcmil = 0.050 inches (1.3 mm), 500 kcmil to 1000 kcmil = 0.060 inches (1.5 mm)

APPLICATIONS AND FEATURES:

Southwire's Single Conductor 1kV Teck 90 is a CSA approved armoured cable for Industrial and Commercial applications. FT4, -40C, HL, AG14 and 90°C rated for use in harsh Canadian environments. Rated for installation in cable trays, duct banks, direct burial, troughs, hazardous locations, continuous rigid cable supports, and concrete encaseable. CSA AG14 Acid Gas compliance.

- -40°C - CSA Cold Bend and Impact Temperature
- -25°C - Min. Installation Temperature
- 90°C - Max. Continuous Operating Temperature
- 140°C for Emergency Overload Temperature

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- CSA C22.2 No. 174 Cables in Hazardous Locations
- CSA C22.2 No. 131 Type TECK 90 Cable
- CSA C22.2 No. 2556 & No. 0.3 Wire and Cable Test Methods
- CSA LTGG [-40°C] - as per C68.10 - for Cold Bend and Impact rating
- CSA HL - for Hazardous Locations rating
- CSA SUN RES - for Sunlight Resistant rating

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- CSA AG14 - Acid Gas Compliance
- ICEA S-96-659 (NEMA WC 71) 2001-5000 V Nonshielded Cables
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- FT1 Flame Test (1,706 BTU/Hr nominal - Vertical Wire Flame Test)

SAMPLE PRINT LEGEND:

{SQMTR} SOUTHWIRE {CSA} LL90458 1/C XX KCMIL CU TECK 90 XLPE -40°C FT4 AG14 SUN RES 90°C 1000V HL USA

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Strand	Diameter Over Conductor	Diameter Over Insulation	Insul. Thickness	Concentric Neutral	Inner Jacket Thickness	Dia. Over Inner Jacket	Dia. Over Armour	Overall Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/ Kcmil	No.	inch	inch	mil	No. x AWG	mil	inch	inch	mil	inch	lb/ 1000ft	lb/ 1000ft
597824	4/0	19	0.512	0.666	80	17x12	55	0.95	1.221	45	1.311	825	1272
606912	250	37	0.558	0.731	90	21x12	60	1.025	1.308	45	1.398	997	1505
586405	350	37	0.661	0.83	90	21x12	60	1.124	1.45	45	1.54	1354	1936
581915	500	37	0.789	0.955	90	9x12	60	1.249	1.575	55	1.685	1901	2579
576233	750	61	0.968	1.157	90	13x12	60	1.451	1.771	55	1.881	2758	3573
584258	1000	61	1.117	1.306	90	17x12	60	1.6	1.936	55	2.046	3530	4480

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
* Other conductor sizes and outer jacket colours are available upon request. (#s in brackets represent # of strands / conductor. Number of strands may vary as per CSA standard.)
** Non-Standard sizes are available upon request. Reel sizes are not guaranteed. The factory reserves the right to make changes as necessary to optimize manufacturing requirements.
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 2 – Electrical and Engineering Data

Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance @ 60Hz	Allowable Ampacity In Raceway 90°C
AWG/ Kcmil	inch	lb	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp
4/0	9.2	1692	0.051	0.063	0.041	260
250	9.8	2000	0.043	0.053	0.041	290
350	10.8	2800	0.031	0.039	0.04	350
500	11.8	4000	0.021	0.027	0.039	430
750	13.2	6000	0.014	0.019	0.038	535
1000	14.3	8000	0.011	0.016	0.037	615

* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.

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Table 3 – Weights and Measurements (Metric)

Stock Number	Cond. Size	Strand	Diameter Over Conductor	Diameter Over Insulation	Insul. Thickness	Concentric Neutral	Inner Jacket Thickness	Dia. Over Inner Jacket	Dia. Over Armour	Overall Jacket Thickness	Approx. OD	Copper Weight	Approx. Weight
	AWG/ Kcmil	No.	mm	mm	mm	No. x AWG	mm	mm	mm	mm	mm	kg/km	kg/km
597824	4/0	19	13.00	16.92	2.03	17x12	1.40	24.13	31.01	1.14	33.30	1228	1893
606912	250	37	14.17	18.57	2.29	21x12	1.52	26.03	33.22	1.14	35.51	1484	2240
586405	350	37	16.79	21.08	2.29	21x12	1.52	28.55	36.83	1.14	39.12	2015	2881
581915	500	37	20.04	24.26	2.29	9x12	1.52	31.72	40.00	1.40	42.80	2829	3838
576233	750	61	24.59	29.39	2.29	13x12	1.52	36.86	44.98	1.40	47.78	4104	5317
584258	1000	61	28.37	33.17	2.29	17x12	1.52	40.64	49.17	1.40	51.97	5253	6667

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
* Other conductor sizes and outer jacket colours are available upon request. (#s in brackets represent # of strands / conductor. Number of strands may vary as per CSA standard.)
** Non-Standard sizes are available upon request. Reel sizes are not guaranteed. The factory reserves the right to make changes as necessary to optimize manufacturing requirements.
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 4 – Electrical and Engineering Data (Metric)

Cond. Size	Min Bending Radius	Max Pull Tension	DC Resistance @ 25°C	AC Resistance @ 90°C	Inductive Reactance @ 60Hz	Allowable Ampacity In Raceway 90°C
AWG/ Kcmil	mm	newton	Ω/km	Ω/km	Ω/km	Amp
4/0	233.68	7529	0.1673	0.21	0.1345	260
250	248.92	8900	0.1411	0.17	0.1345	290
350	274.32	12460	0.1017	0.13	0.1312	350
500	299.72	17800	0.0689	0.09	0.1280	430
750	335.28	26700	0.0459	0.06	0.1247	535
1000	363.22	35600	0.0361	0.05	0.1214	615

* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.

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