

# STABILOY® NUAL® TECK90 Cable - 1000V

TECK90 cable is a rugged, durable cable of versatile construction proven through many years of service in mines and major resource industries such as the pulp and paper, petrochemical and metal industries. The excellent inherent properties of TECK90 cable materials and construction ensure its continuous service, even when exposed to many forms of environmental degradation and attack.

TECK90 is a flexible, interlocked aluminum armoured cable having an inner PVC jacket over insulated STABILOY NUAL RW90 conductors as well as outer PVC jacket over the armour. In Canada, the cable is approved for use in accordance with the recommendations of the Canadian Electrical Code as Type TECK90. In the US, for similar installations, the cable may be approved, where required, for use in accordance with Section 90-4 of the National Electrical Code by the authority having jurisdiction. TECK90 is CSA-approved for use in Class I, II, & III hazardous locations, Division I. It is also available without the outer PVC jacket.

STABILOY and NUAL are registered names for the aluminum alloy formulated specifically for enhanced connectability performance. STABILOY meets or exceeds the requirements of American Society for Testing Materials (ASTM), Underwriters Laboratories (UL) standards, and is recognized by the National Electrical Code (NEC), NFPA 70 Standard. NUAL is CSA certified as an ACM, Aluminum Conductor Material, meeting all the requirements of the Canadian Electrical Code. They are identified by the Aluminum Association as AA-8030 and by the Alcan Alloy designation system as 10940.

TECK90 armoured cables can be installed in cable trays (enclosed ventilated or non-ventilated, and ladder-type),

suspended on Unistrut, or clamped directly to walls or ceilings in indoor locations. In addition, TECK90 cable is certified for outdoor and other wet applications, including direct burial in the earth. It carries an FT4 flame test rating (IEEE P1202). The cables have low acid gas release (AG 14) jackets and comply with Factory Mutual FMRC GP-1 for unjacketed and GP-2 for jacketed construction.

All Alcan Cable TECK90 multi-conductor cables are filled to round using non-hygroscopic fillers ensuring uniform concentricity, which eases pulling.

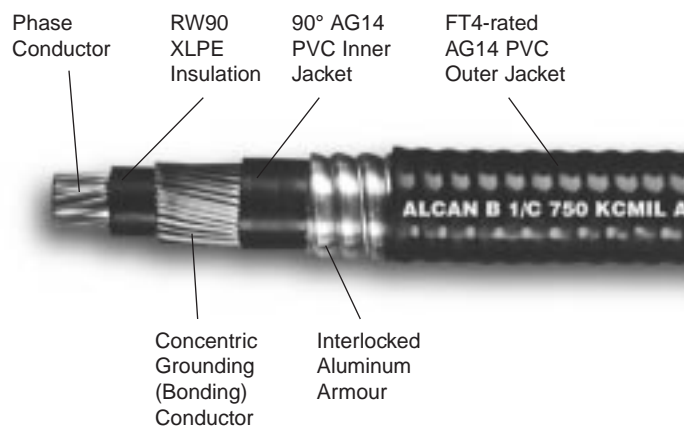
All Alcan Cable TECK90 jackets have length markings which simplifies measuring and cutting.

TECK90 is available as a single conductor 1000 volt construction in sizes 250 to 1000 kcmil (126.7 to 506.7mm<sup>2</sup>). On single-conductor cables, the grounding (bonding) conductor is applied helically around the phase conductor.

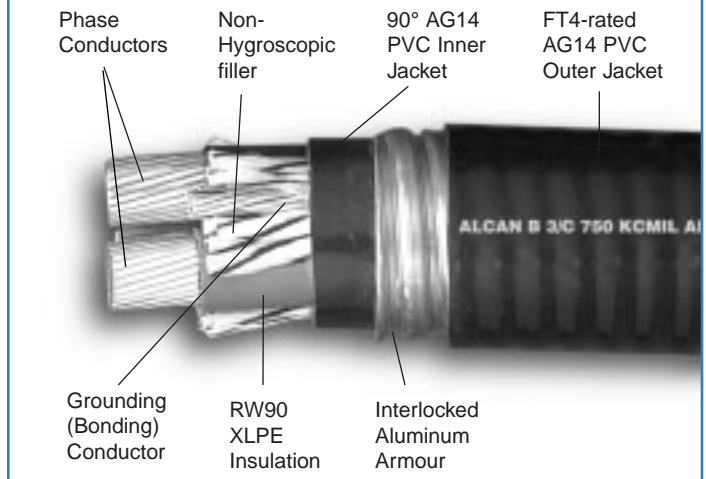
All TECK90 multi-conductor constructions are marked H.L. indicating they are suitable for use in hazardous locations. Alcan has chosen not to mark single conductor cables H.L., as single conductor armoured cables should not be used in hazardous locations.

Multi-conductor construction is available in a 1000 volt rating in sizes 6 AWG to 750 kcmil (13.3 to 380 mm<sup>2</sup>). In multi-conductor construction in sizes 1 AWG and larger phases are identified with the words one, two and three in the print legends. In sizes smaller than 1 AWG colour coding (black, red and blue) is used for phase identification.

## TECK90 SINGLE-CONDUCTOR CABLE



## TECK90 MULTI-CONDUCTOR CABLE



## Specification

CSA C22.2 No. 131 (TECK)

CSA C22.2 No. 174 (Hazardous Locations)

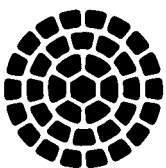
FT4-Rated: Vertical Flame Test - cable in cable tray (IEEE P1202)

AG14 inner and outer PVC jacket:

Maximum 14% acid gas emission by weight

FMRC Class 3972 Fire Test GP-2 (jacketed)

GP-1 (unjacketed)





## DIMENSIONS AND WEIGHTS FOR TECK90 CABLES - 1000V

Conductor Size AWG/ kcmil	Grounding (Bonding) Conductor Size	Approximate Cable Diameters						Approximate Mass			
		Under Armour mm	Under Armour inches	Over Armour mm	Over Armour inches	Over Jacket mm	Over Jacket inches	Conductor Metal kg/km	Conductor Metal lb/1000 ft	Total kg/km	Total lb/1000 ft
<b>SINGLE CONDUCTOR</b>											
250	1	25.4	1.001	32.1	1.265	35.5	1.399	469	315	1233	829
300	1	26.8	1.056	33.5	1.320	36.8	1.450	540	363	1414	950
350	1/0	27.9	1.099	34.6	1.363	38.5	1.517	654	439	1583	1064
500	2/0	30.9	1.217	37.6	1.481	41.0	1.615	895	607	1940	1304
750	3/0	37.8	1.489	45.3	1.785	47.5	1.872	1283	862	2638	1773
1000	3/0	39.7	1.564	47.4	1.868	53.1	2.092	1652	1110	3279	2203
<b>THREE CONDUCTOR</b>											
6	8	20.4	0.804	27.2	1.072	30.0	1.182	139	93	804	540
4	6	23.8	0.938	30.5	1.202	34.0	1.340	217	146	1068	718
2	6	27.0	1.064	33.7	1.328	36.8	1.450	323	217	1265	850
1	4	30.8	1.214	37.5	1.478	41.0	1.615	411	276	1557	1046
1/0	4	32.8	1.292	39.5	1.556	43.1	1.698	505	339	1764	1185
2/0	4	35.2	1.387	42.7	1.682	46.5	1.832	621	417	2073	1393
3/0	4	37.6	1.481	45.1	1.777	48.7	1.919	764	513	2283	1534
4/0	4	40.5	1.596	49.4	1.946	53.2	2.096	951	639	2741	1842
250	2	45.6	1.797	54.6	2.151	58.1	2.289	1142	767	3286	2208
300	2	48.4	1.907	57.3	2.258	61.4	2.419	1361	915	3730	2507
350	2	50.9	2.005	59.7	2.352	63.8	2.514	1589	1068	4064	2731
400	2	53.2	2.096	62.1	2.447	65.4	2.577	1783	1198	4352	2925
500	1	57.2	2.254	66.1	2.604	70.9	2.793	2235	1502	5092	3422
750	1/0	70.6	2.782	79.4	3.128	82.4	3.247	3294	2214	6734	4525
<b>FOUR CONDUCTOR</b>											
6	8	23.7	0.934	30.4	1.198	33.6	1.324	177	119	1032	694
4	6	26.4	1.040	33.1	1.304	37.4	1.474	276	185	1287	865
2	6	29.6	1.166	36.6	1.442	40.1	1.580	418	281	1529	1027
1	4	34.0	1.340	40.8	1.608	45.4	1.789	529	355	1927	1295
1/0	4	36.2	1.426	43.7	1.722	48.3	1.903	653	439	2241	1506
2/0	4	38.6	1.521	46.0	1.812	50.4	1.986	808	543	2519	1693
3/0	4	41.7	1.643	50.3	1.982	53.2	2.096	998	671	2916	1960
4/0	4	46.0	1.812	54.9	2.163	59.5	2.344	1249	839	3499	2351
250	2	50.3	1.982	59.2	2.332	63.3	2.494	1491	1002	3976	2672
350	2	56.3	2.218	65.2	2.569	69.3	2.730	1589	1068	4853	3261
400	2	57.6	2.269	66.5	2.620	72.3	2.849	2345	1576	5358	3601
500	1	63.5	2.502	72.4	2.853	77.3	3.046	2941	1976	6222	4181
750	1/0	75.8	2.987	84.7	3.337	89.7	3.534	4343	2918	8582	5767

• The foregoing weights and dimensions are nominal and therefore subject to normal variation. Alcan does not guarantee that cable weights and dimensions will conform exactly to those indicated. Alcan does not accept responsibility for any decisions based on the foregoing weights and dimensions, provided the cable is in compliance with authorized codes and standards, and product specifications.

• All STABILOY NUAL conductors are compact stranded.

• NEC® and National Electrical Code® are registered trademarks of the National Fire Protection Association, Quincy, Massachusetts.

**STABILOY® NUAL®** CONDUCTORS

**Alcan Cable**

Division of Alcan Products Corporation