CSA Group

C22.2 No. 131-17

Type TECK 90 cable

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CSA Group

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C22.2 No. 131-17
November 2017

Title: *Type TECK 90 cable*

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C22.2 No. 131-17
Type TECK 90 cable

Published in November 2017 by CSA Group
A not-for-profit private sector organization
178 Rexdale Boulevard, Toronto, Ontario, Canada M9W 1R3

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or call toll-free 1-800-463-6727 or 416-747-4044.

ISBN 978-1-4883-1142-0

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Preface

This is the sixth edition of CSA C22.2 No. 131, *Type TECK 90 cable*, one of a series of Standards issued under Part II of the *Canadian Electrical Code*. It supersedes the previous editions, published in 2014, 2007, 1989, 1981, and 1965.

The main changes in this edition are

a) testing procedures now reference CSA C22.2 No. 2556 instead of CSA C22.2 No. 0.3;
b) editorial changes to the presentation of properties after ageing in Table 12; and
c) editorial changes to the presentation of properties after ageing in Table 14.

For general information on the Standards of the *Canadian Electrical Code, Part II*, see the preface of CAN/CSA-C22.2 No. 0.

This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

This Standard was prepared by the Subcommittee on Metal-Clad Cables, under the jurisdiction of Technical Committee on Wiring Products and the Strategic Steering Committee on Requirements for Electrical Safety, and has been formally approved by the Technical Committee.

Interpretations: The Strategic Steering Committee on Requirements for Electrical Safety has provided the following direction for the interpretation of standards under its jurisdiction: "The literal text shall be used in judging compliance of products with the safety requirements of this Standard. When the literal text cannot be applied to the product, such as for new materials or construction, and when a relevant committee interpretation has not already been published, CSA Group's procedures for Interpretation shall be followed to determine the intended safety principle."

Notes:

1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
3) *This Standard was developed by consensus, which is defined by* CSA Policy governing standardization — Code of good practice for standardization *as "substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity". It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*
4) *To submit a request for interpretation of this Standard, please send the following information to inquiries@csagroup.org and include "Request for interpretation" in the subject line:*
   a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
   b) *provide an explanation of circumstances surrounding the actual field condition; and*
   c) *where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.*

   Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization *and are available on the* Current Standards Activities *page at* ***standardsactivities.csa.ca****.*
5) *This Standard is subject to review within five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line:*
   a) *Standard designation (number);*
   b) *relevant clause, table, and/or figure number;*
   c) *wording of the proposed change; and*
   d) *rationale for the change.*

C22.2 No. 131-17
Type TECK 90 cable

1 Scope

1.1
This Standard applies to single- and multi-conductor Type TECK 90 armoured cable intended for installation in accordance with the *Canadian Electrical Code, Part I*, on systems having nominal voltages of 5000 V and less and having a maximum temperature rating of 90 °C in both dry and wet locations.

1.2
In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

2 Reference publications
This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below, including all amendments published thereto.

CSA Group

C22.1-15
Canadian Electrical Code, Part I

CAN/CSA-C22.2 No. 0-15
General requirements — Canadian Electrical Code, Part II

C22.2 No. 38-14
Thermoset-insulated wires and cables

C22.2 No. 239-17
Control and instrumentation cables

C22.2 No. 2556-15
Wire and cable test methods

CAN/CSA-C68.5-13
Primary shielded and concentric neutral cable for distribution utilities

ASTM International

D746-14
Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact

F2617-15
Standard Test Method for Identification and Quantification of Chromium, Bromine, Cadmium, Mercury, and Lead in Polymeric Material Using Energy Dispersive X-ray Spectrometry

NFPA (National Fire Protection Association)

262-2015
Standard Method of Test for Flame Travel and Smoke of Wires and Cables for Use in Air-Handling Spaces

ULC (Underwriters Laboratories of Canada)

CAN/ULC-S102.4-10
Standard Method of Test for Fire and Smoke Characteristics of Electrical Wiring, Cables and Non-Metallic Raceways

3 Definitions

The following definitions shall apply in this Standard:

Halogen-free material — a material having not more than 0.2% by weight of total halogen elements.

Limited-smoke cable — a cable meeting the test classification FT4-ST1.

Thermoplastic material — a polymeric material that can be repeatedly softened by heating and hardened by cooling and in the softened state can be shaped through the application of force.

Thermoset material — a polymeric material that, when cross-linked, will not flow on subsequent heating. Cross-linking is accomplished chemically or by irradiation.

4 General requirements

General requirements applicable to this Standard shall be in accordance with CAN/CSA-C22.2 No. 0.

Note: *Where reference is made to a specific number of samples to be tested, the specified number is to be considered a minimum quantity.*

5 Construction

5.1 Circuit conductors

5.1.1 Material

Conductors shall be stranded and shall consist of aluminum conductor material (ACM) AA8000 Series alloy, soft annealed copper, or coated soft annealed copper complying with the applicable clauses of CSA C22.2 No. 38.

