

## Introduction

Teck cable, a flexible armoured cable originally designed for use in Canadian mines, has become a key component for the distribution of electricity through a broad range of industrial, commercial and manufacturing facilities.

Teck cable's combination of interlocking flexible armour with two layers of PVC jacket provide a rugged, compact and flexible cable that is resistant to corrosion, water and mechanical abuse. It is designed for use in wet or dry locations with a maximum conductor temperature of 90°C and a low temperature rating of -40°C.



## Applications

Teck cable is used extensively by the pulp and paper, chemical, mining, petrochemical and manufacturing industries in a broad range of applications, especially where cable may be subjected to mechanical damage and corrosive chemicals. Commercial applications for Teck cable include apartment buildings and commercial complexes. Teck cable is also an economical alternative as the need for conduits or ducts and pull boxes is eliminated.

Teck cable is approved for use in wet and dry locations, indoor and outdoor in exposed and concealed wiring, in ventilated, non-ventilated and ladder type cable trays, for direct earth burial, and for service entrance installations, above and below ground. It is 'HL' rated for use in all hazardous locations when used with optional 'HL' approved connectors.

## Specifications

- CSA FT4
- CSA C22.2 No. 131 for Teck cables rated up to and including 5kV
- CSA C68.3 for Teck cables rated above 5kV
- CSA C22.2 No. 0.3 Clause 4.11.4 FT4 flame test
- CSA C22.2 No. 174 for use in the following hazardous locations (HL):
  - Class 1 Group A, B, C, D. Division 1 & 2
  - Class II Group E, F, G. Division 1 & 2
  - Class III
- Ontario Hydro Provisional Spec L801 SM-77
- ICEA S-66-524 / NEMA WC7 for Teck cables rated above 5kV
- IEEE 383 (70,000 BTU/hr) flame test
- ICEA T-29-520 (210,000 BTU/hr) Vertical Cable Tray Flame Test
- ICEA T-30-520 (70,000 BTU/hr) Vertical Cable Tray Flame Test

### CAUTION NOTICE

In case of fire, well maintained early warning smoke detectors will give an alarm long before non-metallic coverings become combustible. However, the Electrical and Electronic Manufacturers Association of Canada has suggested that all purchasers of PVC insulated / jacketed products be advised of the following:

- Non-metallic coverings of electrical cables can burn and may transmit fire when ignited.
- Burning non-metallic coverings may emit acid gases which are toxic and may generate dense smoke.
- Emission of acid gases may corrode metal in the vicinity e.g. sensitive instruments and reinforcing rods in cement.

The installer and/or user assumes all liability for the consequences of the installation and/or use of any of the products in violation of any applicable law, regulation, or code.

## Conductors

Class B compact or compressed concentric stranded soft drawn bare copper per ASTM, conforming to CSA C68.3.

## Conductor Shielding

A thermoset semi-conducting shield is extruded over the conductor on all cables rated over 1kV. Minimum thickness in accordance with CSA C68.3, Table 2.

## Insulation

Cross-linked polyethylene (XLPE), meeting the requirements of CSA RW90 for cables rated up to and including 5kV. For cables rated above 5kV, the XLPE insulation meets the requirements of CSA Standard C68.3M92.

## Metallic Shield

A copper tape shield meeting the requirements of CSA C68.3 is helically applied to the insulated conductors in three conductor shielded cables rated 5kV and above. In single conductor cables, the concentric ground serves as the metallic shield and bonding conductor.

## Bonding (Ground) Conductor

Class B stranded soft bare copper conductor, in accordance with CSA C68.3 and CSA C22.2 No. 131, is included in the assembled cable for multiconductor cables. In single conductor cables, the concentric ground serves as the metallic shield and bonding conductor.

## Fillers and Core Binder Tape

Where required, suitable fillers to make round and core binders may be used.

## Inner Jacket

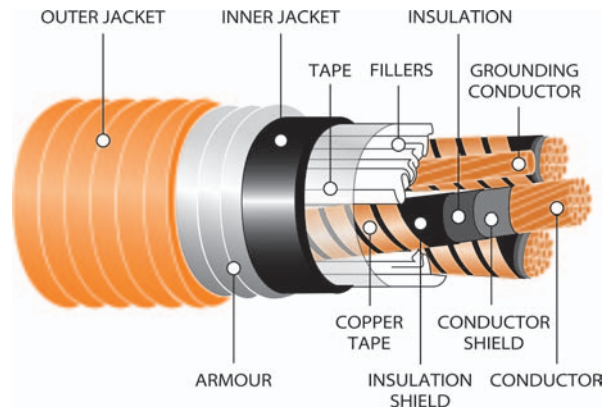
A low temperature (-40°C), flame-retardant, moisture and sun resistant PVC Jacket is applied over the core in accordance with CSA C22.2 No. 131.

## Armour

An interlocking aluminum armour is applied over the inner jacket meeting the requirements of CSA C22.2 No. 131, Clause 4.11.

## Outer Jacket

A low temperature (-40°C), flame-retardant, moisture and sunlight resistant FT4 PVC jacket is applied over the armour in accordance with CSA C22.2 No. 131. Minimum thickness in accordance with CSA 68.3, Table 21.



## Colour Code

### TECK 90 CABLES:

- 2 conductor cables are colour coded black and white
- 3 conductor cables are colour coded black, red and blue
- 4 conductor cables are colour coded black, red, blue and white
- 5 or more conductor cables are black and alpha numeric coded

### ARMoured CONTROL:

- Conductor #1 is white, the remaining conductors are black and numbered

## Options

- Aluminum phase conductor and bonding conductor
- Ethylene-propylene rubber (EPR) insulation for shielded Teck cables rated 5kV and above
- Tree-retardant cross-linked polyethylene (TR-XLPE) insulation for Teck cables 5kV and above
- Overlapping copper tape shield
- Special ground wire requirements: 50% of phase conductor or more than one ground conductor
- Fully filled core for multiconductor Teck cables rated 5kV and above
- Galvanized steel interlocked armour (GSIA) for multiconductor Teck cables
- Coloured outer jacket
- Other constructions available upon request

## Accessories

- Non-hazardous Teck connectors (wet or dry)
- Explosion proof (hazardous location) connectors
- High voltage termination and splice kits