

PART 1 - GENERAL

1.1 RELATED SECTIONS

- .1 Section 21 00 00/26 00 00 – Specific Conditions – Mechanical/Electrical.
- .2 Section 26 05 00 – Common Work Results – Electrical.
- .3 Section 26 05 20 - Wire And Box Connectors 0-1000 V.

1.2 REFERENCES

- .1 Unless otherwise indicated, all the works must be done in accordance with the latest edition of the Quebec Construction Code (QCC).
- .2 Furthermore, works must be carried out in accordance with any other code or standard having jurisdiction, as per the latest edition, including, but not limited to:
 - .1 Canadian Standards Association (CSA) / CSA International.
 - .1 CSA C22.2 n° 0.3, Test Methods for Electrical Wires and Cables.
 - .2 CAN/CSA-C22.2 n° 131, Type TECK 90 Cable.
 - .2 Underwriters' Laboratories of Canada (ULC).
 - .1 ULC-S139-00, Method of Fire Test for Evaluation of Integrity of Electrical Cables.

1.3 SUBMITTALS

- .1 Shop drawings:
 - .1 Submit shop drawings in accordance with Section 21 00 00/26 00 00 – Specific Conditions – Mechanical/Electrical.
- .2 Product data:
 - .1 Submit required product data in accordance with Section 21 00 00/26 00 00 – Specific Conditions – Mechanical/Electrical.
- .3 Samples:
 - .1 N/A.

1.4 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for recycling in accordance with Section 21 00 00/26 00 00 – Specific Conditions – Mechanical/Electrical.
- .2 Separate packaging material for recycling and place in designated containers in accordance with Waste Management Plan.
- .3 Fold up metal banding, flatten and place in designated area for recycling.

1.5 PLANS

- .1 The gauge and number of conductors are indicated on the plans. If a gauge is not shown, the Contractor must never use a lesser gauge than what the Quebec Construction Code, Chapter V, allows and the smallest gauge cannot be less than No. 12.
- .2 Not all wiring is shown on the plans. The wiring that is on the plans is represented in schematic form and is used to indicate the number of circuits required. The Contractor must make provisions for all wiring that is required.

PART 2 - PRODUCTS

2.1 BUILDING WIRES

- .1 Conductors: stranded for 10 AWG and larger.
- .2 Copper conductors: size as indicated on plans, with 600 V or 1000 V insulation of cross-linked thermosetting polyethylene material rated RW90 XLPE.
- .3 Conductors: 12 AWG minimum.
- .4 For electrical outlet systems, conductors of 12 AWG minimum.
- .5 Each circuit must have a ground continuity wire (green). EMT conduit cannot be used as a ground continuity.

2.2 ARMoured CABLES

- .1 Conductors: insulated, copper, size as indicated on plans.
- .2 Type: AC90.
- .3 Armour: interlocking type fabricated from aluminum] strip.
- .4 Appropriate connectors.

2.3 TECK CABLES

- .1 Conductors:
 - .1 Grounding conductor: copper.
 - .2 Conductors: copper, size as indicated on plans.
- .2 Insulation:
 - .1 Cross-linked polyethylene RW90 XLPE, rated 1000 V.
- .3 Inner jacket: Polyvinyl chloride material.
- .4 Overall covering: Polyvinyl chloride.
- .5 Fastenings:
 - .1 One hole straps to secure surface cables 53 mm and smaller. Two hole steel straps for cables larger than 53 mm.
 - .2 Channel type supports for two or more cables.
 - .3 Threaded rods: 6 mm diameter to support suspended channels.
- .6 Connectors:
 - .1 As approved for Teck cables.

PART 3 - EXECUTION

3.1 INSTALLATION OF BUILDING WIRES

- .1 Install wiring as follows:
 - .1 In conduit systems in accordance with Section 26 05 43.01.

3.2 INSTALLATION OF ARMOURED CABLES

- .1 In general, the entire electrical installation shall be in conduit, but the following options are allowed in the following special situations:
 - .1 When ceilings are accessible (removable tiles), the basic framework for the lighting circuits must be in conduit, with junction boxes fixed to the building's structural framework and distributed evenly throughout the entire area of the installation in question. From the various junction boxes, each light fixture may be connected individually using AC-90 armoured cable. However, no more than

four light fixtures may be connected individually to each junction box, and the maximum cable length allowed shall be 5 m.

- .2 AC-90 armoured cable may also be used in the same fashion and under the same conditions as for the lighting fixtures in paragraph 3.2.1.1 to power outlets and heating devices inside drywall-covered partitions. The maximum cable length allowed shall be 5 m.
- .2 Group cables wherever possible.
- .3 Except as otherwise indicated, all cabling to be hidden within the architectural elements. Except as otherwise indicated, no surface installations shall be allowed without prior approval from the Engineer.
- .4 Once installed in their channels, cables must be grouped in accordance with the insulation level.

3.3 INSTALLATION TECK CABLES

- .1 Group cables wherever possible on channels.
- .2 Once installed in their channels, cables must be grouped in accordance with their insulation level.

3.4 INSTALLATION OF CABLES SUPPLIED WITH EQUIPMENT

- .1 Install cables supplied with the appropriate equipment, instruments or components in flexible or rigid, metal or non-metallic conduit, depending on the application.
- .2 Use appropriate connectors.
- .3 No connectors of the cable-gland type will be allowed for connecting cables directly to a piece of equipment, instrument or component.

END OF SECTION