

## **MATERIAL SPECIFICATIONS FOR FIBER OPTIC SPLICE ENCLOSURE**

### **SECTION I - GENERAL**

#### Standards

- Electronic Industry Standards (EIA/TIA)
- International Telegraph and Telephone Consultative Committee (CCITT)
- ANSI
- ASTM standards
- FDDI specifications
- UL

Ensure that the Splice Enclosure is a complete kit for fusion splicing the single mode optical fibers of loose tube fiber optic cables inside underground junction boxes in the field using fusion splicer.

Ensure that the Splice Enclosure is re-enterable and designed to hold spliced fibers packaged in a protective sieving and housing and pass through un-spliced fibers.

Ensure that Splice Enclosure is equipped with terminations for cable strength members and bonding wire.

Ensure that Splice Enclosure is in use for a minimum of three years under weather conditions similar to State of New Jersey and in underground junction boxes.

### **SECTION II - SPLICE ENCLOSURE CHARACTERISTICS**

#### Mechanical:

- Nominal size: 8" Dia. x 28" Long
- Nominal weight: 5.0 to 9.0 lb

#### Environmental

- Ensure that Splice Enclosure has gasket-sealing technology that enables ease of installation and re-entry requiring no special tools.
- Ensure that Splice Enclosure does not allow water entry when sprayed for fifteen minutes from a distance of one meter with water at a flow rate of 25 liters per minute at any angle.
- Ensure that Splice Enclosure does not allow water entry when immersed in a six feet head for seven days.
- Ensure that the Splice Enclosure is manufacturer certified for below ground, junction box (pull box) installation.
- Storage and operation temperature: -40°F to + 158°F
- Installation temperature: -22°F to + 158°F

#### Other Requirements

- Rigid non-filled case molded out of polyester/polycarbonate blend.
- Ensure that splice enclosure provides strain relief around the cable jacket and cable strength member.
- Ensure that splice enclosure is rodent proof, water proof, re-enterable and consist of moisture proof case.
- Ensure that all hardware is corrosion resistant aluminum or stainless steel.
- Ensure that splice enclosure is capable of holding hardware made from corrosion resistant aluminum or stainless steel.
- Ensure that splice enclosure is able to re-enter and re-assemble without the use of special tools.

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- Ensure the number of cable entries meet project requirement at each location. 2 to 6 cables entries for 0.5” to 1” dia. loose tube single mode fiber optic cables are required.
- Ensure that splice enclosure meets minimum fiber bending radius requirements.
- Ensure grounding strap is provided.
- Ensure that splice enclosure is capable of holding fusion splice trays and slack baskets to organize and store splices.
- Ensure that splice enclosure is equipped with the necessary mounting hardware.
- Ensure that splice enclosure has air valve for flash testing.

Splice tray specifications

- Fusion splice trays compatible with fusion splicing single mode optical fibers (No. of Fiber per contract plans).
- Ensure that number of splice trays is sufficient to splice all fibers.
- Ensure that it is compatible with splice enclosure.
- Ensure that splice trays are stackable within the splice enclosure.
- Ensure that splice tray is designed to accommodate loose tube buffers secured with tube guide or channel snap.
- Ensure that no cable ties are required to secure loose tube buffers.