Outside Plant All Dielectric (OPDD)
Outside Plant All Dielectric Loose Tube Cable

Part Number: OPD006CB3510/25

Berk-Tek's Outside Plant Loose Tube fiber optic cables are designed for installation in environments such as aerial lashing, conduit and pathways that are subjected to wide temperature variations. The Outside Plant product line offers 2 - 432 fibers per cable. These cables are thoroughly tested and verified to Telcordia GR-20 and ICEA-640 for outside cabling systems.

DESCRIPTION

Berk-Tek's Outdoor Loose Tube cables are available in multimode, single-mode and GIGAlite™ fibers.

Construction

Gel-filled tubes containing 250 µm fibers, in up to 12 colors. 24 fiber tubes contain two 12-fiber bundles.

Outdoor Consideration

Berk-Tek recommends that loose tube cables be utilized in an outside plant installation environment. Loose tube cables are especially recommended if the interbuilding conduit system is likely to fill with water.

- Sunlight resistant outer jacket per UL 444 clause 7.22.

Applications

Berk-Tek's Outdoor Loose Tube fiber optic cable is intended for all high speed data applications, including:

- ETHERNET: 10BASE – 400GBASE (10BASE, 100BASE, 1000BASE, 10GBASE, 40GBASE, 100GBASE, 400GBASE)
- Fibre Channel: 1G-FC – 128GFC (1, 2, 4, 8, 16, 32, 128 GFC)
- SONET: OC-1 – OC-768 (OC -1, 3, 12, 24, 48, 192, 768)
- SDH: STM-0 – STM-256 (STM-0, 1, 4, 16, 64, 256)
- OTN: OTU-1 – OTU4 (OTU1, 2, 2e, 2f, 3, 3e2, 4)
- CPRI: CPRI-1 – CPRI-9 (CPRI-1, 2, 3, 4, 5, 6, 7, 7a, 8, 9)

Features

- High tensile strength, crush resistant and small diameter design.
- Single-mode, multimode and hybrid design options available.
- All dielectric design.
- Armored designs available.
- Fully water-blocked core using dry water blocking system.

Benefits

- Provides for greater pulling distances thus reducing installation time.
- Broad design selection allows for mix and match of fiber components to specific networking applications.
- System grounding problems eliminated.
- Long-term reliability.
- Low cable plant maintenance, ease of installation.
- Reduce network costs.

STANDARDS

International EN 50173; ISO/IEC 1801
National ANSI/ICEA S-87-640; ANSI/TIA-568.3-D; Telcordia GR-20
### CHARACTERISTICS

#### Construction characteristics
- **Fiber optic type**: OM1 62.5/125
- **Type of cable**: Loose tube
- **Jacket Material**: Polyethylene
- **Sheath colour**: Black

#### Dimensional characteristics
- **Tube diameter**: 2.4 mm
- **Number of optical fibres**: 6
- **Cable diameter (Nominal)**: 0.4 in
- **Nominal outer diameter**: 10.2 mm
- **Nominal cable weight**: 55 lb/kft
- **Approximate weight**: 81 kg/km

#### Transmission characteristics
- **Optical performance**: CB (62.5/125 Standard, OM1)
  - **Attenuation, max. 850 nm (cabled)**: 3.5 dB/km
  - **Attenuation, max. 1300 nm (cabled)**: 1.0 dB/km

#### Mechanical characteristics
- **Maximum installation tension**: 400 lb
- **Maximum installation tension**: 1779 N
- **Max. Load. Long Term (lbs)**: 120.0 lb
- **Max. Load. Long Term**: 534.0 N
- **Impacts per TIA/EIA FOTP-25**: 2 at 5.88 N-m
- **Crush resistance per TIA/EIA FOTP-41**: 110 N/cm
- **Cable flexibility per TIA/EIA FOTP-104**: 100 cycles

#### Usage characteristics
- **Minimum Bending Radius - Install**: 6 in
- **Minimum Bend Radius - Install**: 15.2 cm
- **Minimum Bending Radius - LongTerm**: 4 in
- **Minimum Bending Radius - LongTerm**: 10.2 cm
- **RoHS compliant**: Yes
- **Recommended operating temperature range**: -40 .. 75 °C
- **Ambient installation temperature, range**: -30 .. 60 °C
- **Recommended storage temperature range**: -60 .. 85 °C
- **Field of application**: Outdoor
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SHEATH COLOR

<table>
<thead>
<tr>
<th>Fiber Type</th>
<th>Core Size (um)</th>
<th>ISO-TIA Standard</th>
<th>Effective Modal BW @ 850 nm</th>
<th>Overfilled Launch BW @ 850 nm</th>
<th>Attenuation @ 850 nm</th>
<th>Attenuation @ 1300 nm</th>
<th>Attenuation @ 1550 nm</th>
<th>Sheath Color</th>
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<td>OS2</td>
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NS = Not Specified

MANUFACTURING RELEASE

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