# Berk-Tek Indoor/Outdoor Plenum Interconnect w/ Armor-Tek™ (ICPK-I/O)



Berk-Tek's Plenum rated Indoor/Outdoor Interconnect cables are designed specifically for LAN/WAN campus and building backbone cabling infrastructure. Armor-Tek Interlocking Armor is wound around the cable core. Suitable for Indoor/Outdoor installations, below the frost line.

## **DESCRIPTION**

Berk-Tek's tight buffered indoor/outdoor plenum interlock armored cables are designed for installation in plenum and horizontal environments, and interbuilding backbone structures.

This design incorporates tight buffered optical fibers within a dry water blocked core cable. Interlock armor and an outer jacket are added over the cable core. Suitable for operation across wide temperature variations typically addressed by outside plant cables. No Buffer Tube Fanout kits are required. Direct termination is enabled.

### Construction

Each cable utilizes our DryGel water blocking system in the core cable. Cable design can accommodate from 2 or 4 tight buffered (900  $\mu$ m) fibers.

OFCP Rated. Available with aluminum interlock armor, covered by a plenum rated jacket.

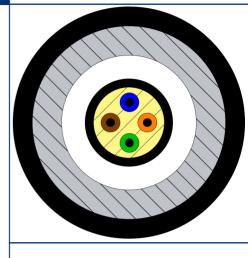
## **Outdoor Considerations**

- These water-blocked cables feature fungus resistant jacketing, and are sunlight resistant per UL 444 clause 7.22.
- For use in conduit, below the frost line.
- Loose Tube cables are recommended if interbuilding conduit systems lie above the frost line and are likely to fill with water.
- Tight Buffer fiber cables are not suitible for aerial-lashed installations.

## **Applications**

Berk-Tek's tight buffered Interlocking Armor 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)
- PON (SMF ONLY): RFoG, APON, BPON, EPON, GPON, WDM-PON, NG-PON



## **STANDARDS**

International EN 50173; ISO/IEC 11801

National ANSI/ICEA S-104-696; ANSI/TIA-568.3-D; NFPA 130; Telcordia GR-409

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### **Features**

- Flexible 900 µm tight buffered construction
- · High tensile strength cost-saving design, easy to install and terminate
- Single-mode, multimode, and hybrid designs available
- Also available in a riser-rated low smoke zero halogen design

### **Benefits**

- · Cost-saving design, easy to install and terminate
- · Provides for greater pulling distances thus reducing installation time
- Assurance that cables will meet required specifications for communication networking applications
- Broad design selection allows for mix and match of fiber components to specific networking applications
- One cable design meeting all structured cabling network communications applications

Country of Origin: U.S.A.

| TECHNICAL DATA - PHYSICAL |                          |       |                 |         |       |                  | tall | Long Term |              | Install |     | Long Term |     |
|---------------------------|--------------------------|-------|-----------------|---------|-------|------------------|------|-----------|--------------|---------|-----|-----------|-----|
| Fibers                    | ibers Part Number Prefix |       | Diameter Weight |         | ight  | Min. Bend Radius |      |           | Max. Loading |         |     |           |     |
|                           |                          | in.   | mm              | lb./kft | kg/km | in.              | cm   | in.       | cm           | lbf.    | N   | lbf.      | N   |
| 2                         | ICPK002-I/O(BLA)         | 0.495 | 12.6            | 77      | 115   | 7.4              | 18.9 | 5.0       | 12.6         | 100     | 445 | 30        | 133 |
| 4                         | ICPK004-I/O(BLA)         | 0.495 | 12.6            | 79      | 117   | 7.4              | 18.9 | 5.0       | 12.6         | 100     | 445 | 30        | 133 |

| TECHNICAL DATA |                          |                              |              |                    |                                   |   |                      |         |         |         |  |
|----------------|--------------------------|------------------------------|--------------|--------------------|-----------------------------------|---|----------------------|---------|---------|---------|--|
| Fiber<br>Type  | Part<br>Number<br>Suffix | Berk-Tek Fiber               | Core<br>Size | Wavelength<br>(nm) | Maximum<br>Attenuation<br>(dB/km) | Effective<br>Modal<br>Bandwidth<br>@ 850 nm<br>(MHz•km) | Distance<br>(meters) |         |         |         |  |
| Multime        | ode - Bend Ins           | ensitive                     | 1 GbE        | 10 GbE             | 40 GbE                            | 100 GbE   |                      |         |         |         |  |
| OM1            | CB3510/25                | GIGAlite                     | 62.5 µm      | 850/1300           | 3.5/1.0                           | 200   | 300                  | 33      | N/A     | N/A     |  |
| OM3            | EB3010/25                | GIGAlite-10                  | 50 µm        | 850/1300           | 3.0/1.0                           | 2000  | 1000                 | 300     | 100     | 70      |  |
| OM4            | FB3010/F5                | GIGAlite-10FB                | 50 µm        | 850/1300           | 3.0/1.0                           | 4700  | 1040                 | 550     | 150     | 100     |  |
| OM4+           | XB3010/X5                | GIGAlite-10XB                | 50 μm        | 850/1300           | 3.0/1.0                           | 4900  | 1210                 | 600     | 300     | 150     |  |
| WideBa         | and Multimode            | - Bend Insensitiv            | 1 GbE        | 10 GbE             | 40 GbE                            | 100 GbE   |                      |         |         |         |  |
| OM5            | WB3010/W5                | GIGAlite-10WB                | 50 µm        | 850-953/1300       | 3.0/1.0                           | 4700  | 1040                 | 550     | 190     | 100     |  |
| Single-        | Mode - Bend Ir           | nsensitive - ITU-T           | 1 GbE        | 10 GbE             | 40 GbE                            | 100 GbE   |                      |         |         |         |  |
| OS2            | AB0707                   | Standard for<br>Tight Buffer | SMF          | 1310/1550          | 0.5/0.5                           | N/A   | ≥ 5000               | ≥ 10000 | ≥ 10000 | ≥ 10000 |  |

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# Berk-Tek Indoor/Outdoor Plenum Interconnect w/ Armor-Tek™ (ICPK-I/O)



## SHEATH COLORS - ICP(K)-I/O & PDP(K)-I/O

| Fiber<br>Type | Core<br>Size<br>(μm) | ISO-TIA<br>Standard | Effective<br>Modal BW<br>@ 850 nm | Overfilled<br>Launch BW<br>@ 850 nm | Attenuation<br>@ 850 nm | Attenuation<br>@ 1300 nm | Attenuation<br>@ 1550 nm | Sheath<br>Color     |
|---------------|----------------------|---------------------|-----------------------------------|-------------------------------------|-------------------------|--------------------------|--------------------------|---------------------|
| AB            | 8.3                  | OS2                 | NS                                | NS                                  | NS                      | 0.5 dB/km                | 0.5 dB/km                | Yellow or Black     |
| СВ            | 62.5                 | OM1                 | 200 MHz·km                        | 200 MHz·km                          | 3.5 dB/km               | 1.0 dB/km                | NS                       | Orange or Black     |
| EB            | 50                   | OM3                 | 2000 MHz·km                       | 1500 MHz·km                         | 3.0 dB/km               | 1.0 dB/km                | NS                       | Aqua or Black       |
| FB            | 50                   | OM4                 | 4700 MHz·km                       | 3500 MHz·km                         | 3.0 dB/km               | 1.0 dB/km                | NS                       | Aqua or Black       |
| XB            | 50                   | OM4+                | 4900 MHz·km                       | 3675 MHz·km                         | 3.0 dB/km               | 1.0 dB/km                | NS                       | Violet or Black     |
| WB            | 50                   | OM5                 | 4700 MHz·km                       | 3500 MHz·km                         | 3.0 dB/km               | 1.0 dB/km                | NS                       | Lime Green or Black |

NS = Not Specified

## MANUFACTURING RELEASE

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