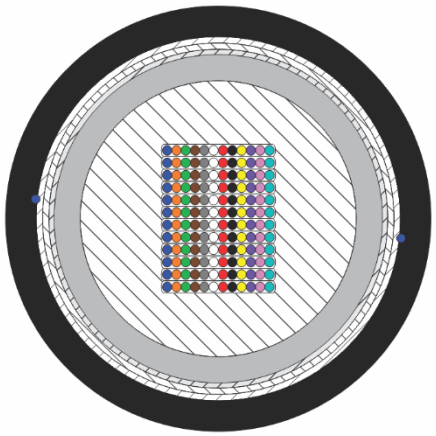
# Berk-Tek Indoor/Outdoor Riser Ribbon Cable (RDR-I/O)

Berk-Tek a LEVITON company

Berk-Tek Indoor/Outdoor riser-rated central tube optical fiber ribbon cable uses single-mode or multimode, 12 fiber ribbons, in a dry central tube, surrounded by dielectric strength members and a riser rated outer jacket.



## DESCRIPTION

### Construction

A fiber optic flexible ribbon is comprised of 12 fibers coated with a dual acrylate coating system. The fibers are contained in a peelable UV curable matrix material, and the ribbon structure is designed to allow easy separation of the fibers from the matrix in preparation for splicing, or termination to a MPO connector. Ribbons are identified per TIA/EIA-598, and are stacked, and surrounded by water-blocking yarns, in a dry central tube. The tube is surrounded by water-blocking tape, two layers of flexible strength members, and an extruded cable jacket, providing tensile strength and crush resistance. The outer jacket material is UV-resistant riser-grade thermoplastic.

### Applications

Berk-Tek optical fiber ribbon cables are ideal for use in ducts, trays, and cabinets in Data Centers and SAN applications where high-density connectivity is required. They are intended for a wide variety of 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

### Features

- Step-index single-mode, or graded index multimode optical fiber
- Protective UV cured acrylate coating
- Every fiber is subjected to a 0.7 Gpa (100 kpsi) minimum proof stress per TIA/EIA FOTP-31
- Peelable UV curable matrix material
- Ribbons are easily separated for single fiber splicing if needed.
- Two layers of flexible strength members
- Qualified to ICEA S-104-696

### Benefits

- Easily interfaced to MT and MPO based connectors, as well as today's newest ribbon connectors
- Mass fusion splicing ribbon cable enables faster project completion and reduced labor costs
- On 144F cables, mass fusion splicing 12F-to-12F requires 92% fewer splices than single fiber-to-fiber splicing
- A single fiber holder can also be used in the mass splicer; no need to worry about multiple machines if a mass splicer is on hand
- Cable design offers excellent mechanical performance with superior crush and flex ratings

**Country of Origin: U.S.A.**

## STANDARDS

**International** EN 50173;
ISO/IEC 11801

**National** ICEA S-104-696
ANSI/TIA-568.3-D,
OFNR FT4,
Telcordia GR-409

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| TECHNICAL DATA - PHYSICAL | | | | | | Install | | Long Term | | Install | | Long Term | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fibers | Product Prefix | Diameter | | Weight | | Min. Bend Radius | | | | Max. Loading | | | |
| | | in. | mm | lb/kft. | kg/km | in. | cm | in. | cm | lb | N | lb | N |
| 12 | RDR12B012-I/O(BLA)-M4 | 0.61 | 15.5 | 148 | 220 | 12.2 | 31.0 | 6.1 | 15.5 | 600 | 2700 | 200 | 890 |
| 24 | RDR12B024-I/O(BLA)-M4 | 0.61 | 15.5 | 148 | 220 | 12.2 | 31.0 | 6.1 | 15.5 | 600 | 2700 | 200 | 890 |
| 48 | RDR12B048-I/O(BLA)-M4 | 0.61 | 15.5 | 148 | 220 | 12.2 | 31.0 | 6.1 | 15.5 | 600 | 2700 | 200 | 890 |
| 72 | RDR12B072-I/O(BLA)-M4 | 0.67 | 17.0 | 155 | 230 | 13.4 | 34.0 | 6.7 | 17.0 | 600 | 2700 | 200 | 890 |
| 96 | RDR12B096-I/O(BLA)-M4 | 0.67 | 17.0 | 155 | 230 | 13.4 | 34.0 | 6.7 | 17.0 | 600 | 2700 | 200 | 890 |
| 144 | RDR12B144-I/O(BLA)-M4 | 0.67 | 17.0 | 155 | 230 | 13.4 | 34.0 | 6.7 | 17.0 | 600 | 2700 | 200 | 890 |

| TECHNICAL DATA | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Fiber Type | Part Number Suffix | Berk-Tek Fiber | Core Size | Wavelength (nm) | Maximmum Attenuation (dB/km) | Effective Modal Bandwidth @ 850 nm (MHz.km) | Distance (meters) | | | | Sheath Color |
| **Multimode - Bend Insensitive** | | | | | | | 1 GbE | 10 GbE | 40 GbE | 100 GbE | |
| OM3 | EB3010/25 | EB | 50 µm | 850/1300 | 3.0/1.0 | 2000 | 1000 | 300 | 100 | 70 | Black |
| OM4 | FB3010/F5 | FB | 50 µm | 850/1300 | 3.0/1.0 | 4700 | 1040 | 550 | 150 | 100 | Black |
| **Single-mode Bend Insensitive - ITU-T G.652.D and G.657.A1 Compliant** | | | | | | | | | | | |
| OS2 | AB0403 | Standard for Central Tube Ribbon | 8.3 µm | 1310/1550 | 0.4/0.3 | N/A | 5000 | 10000 | 10000 | 10000 | Black |

## MANUFACTURING RELEASE

IMPORTANT NOTICE: This product specification is provided for informational purposes only in order to illustrate typical product constructions, applications and/or methods of installation. Because conditions of actual installation and use are unique and will vary, Berk-Tek makes no representation or warranty as to the reliability, accuracy or completeness of this data, even if Berk-Tek is aware of the product's intended use or purpose. Furthermore, this data does not constitute, nor should it be regarded or relied upon, as professional engineering advice. Installation of product should only be done by qualified personnel and in conformance with all safety, electrical and other applicable codes, standards, rules or regulations. Appropriate and correct product selection, installation and use, and compliance with all such codes, standards, rules and regulations, is a customer/end-user responsibility. Product specifications, standards, programs or services are subject to improvement or changes without notice. Berk-Tek accepts no liability for typographical errors, technical inaccuracies, omissions or misuse of the information contained herein. Changes will be periodically made to address any such issues.




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