

Berk-Tek Outdoor Armored Ribbon Cable (RDOA)

Berk-Tek's Outdoor Armored central tube optical fiber ribbon cable uses single-mode 12 or 24 fiber ribbons, in a dry central tube, surrounded by water-blocking tape and corrugated steel armor, two steel strength members, and a UV resistant outer MDPE jacket.

DESCRIPTION

Construction

A fiber optic ribbon is comprised of 12 or 24 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. 24 fiber ribbons are easily split into two 12 fiber ribbons for splicing and termination. 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, corrugated steel armor, two steel strength members, and an extruded cable jacket, providing tensile strength and crush resistance. The outer jacket material is UV-resistant MDPE. Fiber counts range from 48 to 432.

Applications

Berk-Tek optical fiber ribbon outdoor armored cables are ideal for direct burial, lashed aerial, and duct applications where high density connectivity is required.

Berk-Tek optical fiber ribbon cables are intended for a wide variety of high speed data applications, including:

- ETHERNET: 10BASE – 40GBASE (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

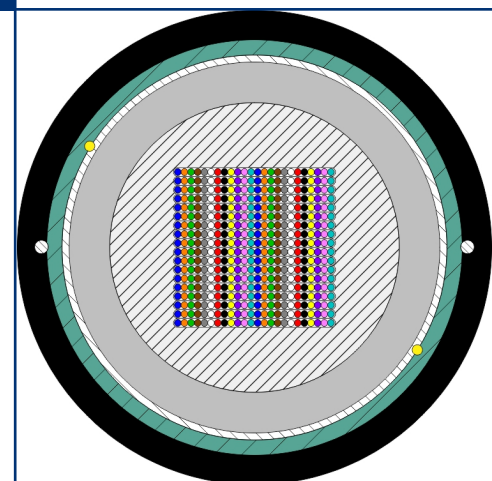
Features

- Step-index, single-mode 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.
- Corrugated steel armor, providing rodent resistance
- Qualified to ICEA S-87-640

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 ANSI/ICEA S-87-640;
ANSI/TIA-568.3-D; RUS PE-90;
Telcordia GR-409

SHEATH COLORS - RDOA-M4

Fiber Type	Core Size (um)	ISO-TIA Standard	Attenuation @ 1310 nm	Attenuation @ 1550 nm	Sheath Color
AB	8.3	OS2	0.4 dB/km	0.3 dB/km	Black

TECHNICAL DATA - PHYSICAL						Install		Long Term		Install		Long Term	
Fibers	Part Number Prefix	Diameter		Weight		Min. Bend Radius		Max. Loading					
		in.	mm	lb./kft	kg/km	in.	cm	in.	cm	lbf.	N	lbf.	N
48	RDOA12B048-M4	0.480	12.1	99	147	4.8	12.1	9.6	24.2	600	2700	200	890
96	RDOA12B096-M4	0.580	14.7	140	208	5.8	14.7	11.6	29.4	600	2700	200	890
144	RDOA12B144-M4	0.640	16.2	169	252	6.4	16.2	12.8	32.4	600	2700	200	890
216	RDOA12B216-M4	0.800	20.4	205	305	8.0	20.4	16.0	40.8	600	2700	200	890
288	RDOA12B288-M4	0.860	21.9	249	371	8.6	21.9	17.2	43.8	600	2700	200	890
432	RDOA12B432-M4	0.970	24.6	286	425	9.7	24.6	19.4	49.2	600	2700	200	890

TECHNICAL DATA										
Fiber Type	Part Number Suffix	Berk-Tek Fiber	Core Size	Wavelength (nm)	Maximum Attenuation (dB/km)	Effective Modal Bandwidth @ 850 nm (MHz·km)	Distance (meters)			
Single-Mode - Bend Insensitive - ITU-T G.652.D and G.657.A1 Compliant							1 GbE	10 GbE	40 GbE	100 GbE
OS2	AB0403	Standard for Central Tube Ribbon	SMF	1310/1550	0.4/0.3	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000

MANUFACTURING RELEASE

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