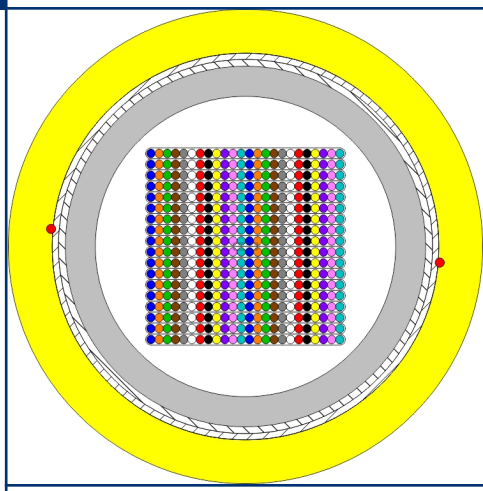
Berk-Tek Indoor Riser Ribbon Cable (RDR)

Berk-Tek's riser-rated central tube optical fiber ribbon cable uses single-mode or multimode, 12 or 24 fiber ribbons, in a dry central tube, surrounded by dielectric strength members and a riser rated outer 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. Ribbons are identified per TIA/EIA-598, and are stacked in a dry central tube, surrounded by two layers of flexible strength members, and an extruded cable jacket, providing tensile strength and crush resistance. The outer jacket material is 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.

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

- 10BASE-FL
- 100BASE-SX/100BASE-FX
- ATM 155/ATM 622
- 1000BASE-SX/1000BASE-LX
- Fibre Channel 1.062/2.125
- 10GBASE-SR/SW
- 10GBASE-LX4
- 40/100 GbE

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-83-596 and Telcordia GR-409

STANDARDS

International EN 50173;
ISO/IEC 11801

National ANSI/ICEA S-83-596;
ANSI/TIA-568.3-D;
Telcordia GR-409

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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.

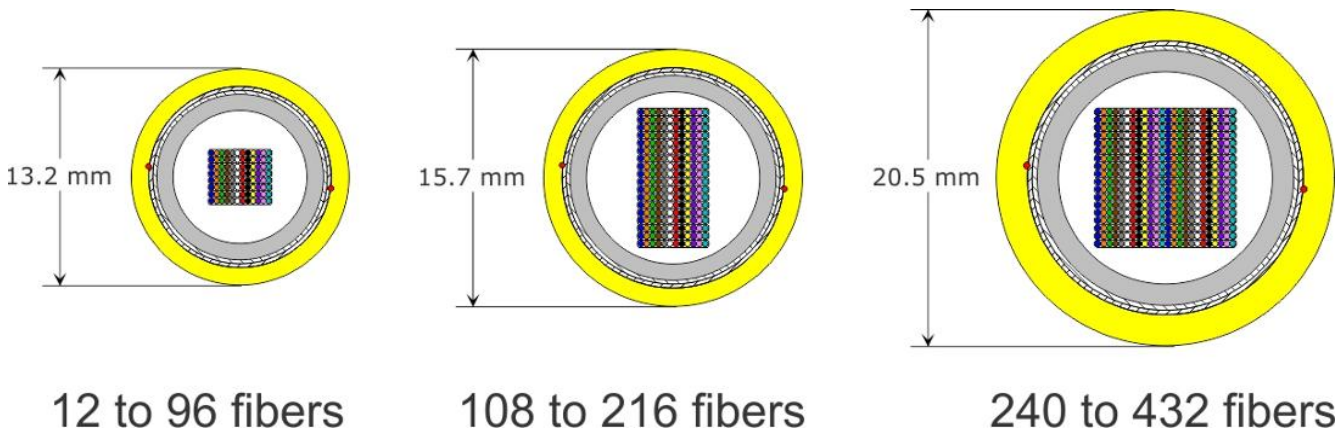
SHEATH COLORS - CENTRAL TUBE RIBBON

Fiber Type	Core Size (μm)	ISO-TIA Standard	Effective Modal BW @ 850 nm	Overfilled Launch BW @ 850 nm	Attenuation @ 850 nm	Attenuation @ 1300 nm	Attenuation @ 1550 nm	Sheath Color
AB	8.3	OS2	NS	NS	NS	0.4 dB/km	0.3 dB/km	Yellow
EB	50	OM3	2000 MHz·km	1500 MHz·km	3.0 dB/km	1.0 dB/km	NS	Aqua
FB	50	OM4	4700 MHz·km	3500 MHz·km	3.0 dB/km	1.0 dB/km	NS	Aqua

NS = Not Specified

RDR FIBER COUNTS, DIAMETERS, AND EXAMPLE CROSS-SECTION DIAGRAMS

Fiber Count Range	Fibers per Ribbon	Cable Diameter (mm)	Cable Diameter (in)
12 to 96	12	13.2	0.52
108 to 216	12	15.7	0.62
240 to 432	24	20.5	0.81



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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
12	RDR12B012-M4	0.52	13.2	102	151	5.2	13.2	10.4	26.4	600	2700	200	890
48	RDR12B048-M4	0.52	13.2	102	151	5.2	13.2	10.4	26.4	600	2700	200	890
72	RDR12B072-M4	0.52	13.2	102	151	5.2	13.2	10.4	26.4	600	2700	200	890
96	RDR12B096-M4	0.52	13.2	102	151	5.2	13.2	10.4	26.4	600	2700	200	890
144	RDR12B144-M4	0.62	15.7	128	190	6.2	15.7	12.4	31.4	600	2700	200	890
216	RDR12B216-M4	0.62	15.7	128	190	6.2	15.7	12.4	31.4	600	2700	200	890
288	RDR24B288-M4	0.81	20.5	210	313	8.1	20.5	16.2	41.0	600	2700	200	890
432	RDR24B432-M4	0.81	20.5	210	313	8.1	20.5	16.2	41.0	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)			
Multimode - Bend Insensitive							**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
WideBand Multimode - Bend Insensitive							**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 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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