

Berk-Tek's plenum-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 plenum 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 plenum-grade thermoplastic.

### Applications

Berk-Tek's fiber optic cable is intended for all 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

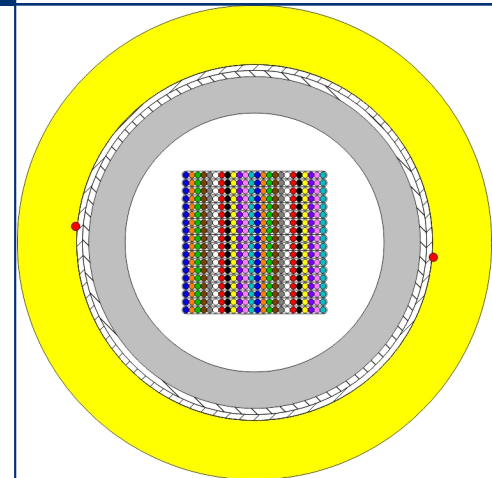
### Features

- Step-index single-mode, 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

### 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-83-596;  
ANSI/TIA-568.3-D

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	RDP12B012-M4	0.440	11.3	86	128	4.4	11.3	8.8	22.6	300	1340	100	450
48	RDP12B048-M4	0.440	11.3	86	128	4.4	11.3	8.8	22.6	300	1340	100	450
72	RDP12B072-M4	0.550	14.0	129	192	5.5	14.0	11.0	28.0	300	1340	100	450
96	RDP12B096-M4	0.550	14.0	129	192	5.5	14.0	11.0	28.0	300	1340	100	450
144	RDP12B144-M4	0.650	16.6	173	257	6.5	16.6	13.0	33.2	300	1340	100	450
216	RDP12B216-M4	0.650	16.6	173	257	6.5	16.6	13.0	33.2	300	1340	100	450
288	RDP24B288-M4	0.850	21.6	263	392	8.5	21.6	17.0	43.2	300	1340	100	450
432	RDP24B432-M4	0.850	21.6	263	392	8.5	21.6	17.0	43.2	300	1340	100	450

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)			
<b>Multimode - Bend Insensitive</b>							<b>1 GbE</b>	<b>10 GbE</b>	<b>40 GbE</b>	<b>100 GbE</b>
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
<b>WideBand Multimode - Bend Insensitive</b>							<b>1 GbE</b>	<b>10 GbE</b>	<b>40 GbE</b>	<b>100 GbE</b>
OM5	WB3010/W5	GIGAlite-10WB	50 μm	850-953/1300	3.0/1.0	4700	1040	550	190	100
<b>Single-Mode - Bend Optimized - ITU-T G.652.D and G.657.A1</b>							<b>1 GbE</b>	<b>10 GbE</b>	<b>40 GbE</b>	<b>100 GbE</b>
OS2	AB0403	Standard for Central Tube Ribbon	SMF	1310/1550	0.4/0.3	N/A	≥ 5000	≥ 10000	≥ 10000	≥ 10000

## 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

## MANUFACTURING RELEASE

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