



- Single-mode, Multimode and GIGALite™
- Outdoor/Indoor
- Plenum or Riser Flame Rated
- RoHS Compliant
- All-Dry Construction



www.berktek.com
1-800-237-5835

Berk-Tek's revolutionary Outdoor/Indoor ADVENTUM™ cables are designed to be used in riser and plenum rated environments. ADVENTUM supports the latest Gigabit Communications Protocols, including Gigabit Ethernet and ATM. This cable design utilizes Berk-Tek's unique DryGel™ waterblocking system. DryGel technology utilizes super absorbent polymers to replace the messy gel filler inside the fiber tubes. It is the only fire-rated cable designed to withstand the rigors of the outside plant environment. ADVENTUM is rated for riser and plenum installations and has no gel filler.

Berk-Tek's loose tube cable design can be used in all typical campus and outdoor/indoor installations, and is available with standard multimode, single-mode and GIGALite™ laser optimized fibers. This design affords the installer the ability to place cable anywhere in a network, bypassing the traditional transition points required in most installations.

ADVENTUM cables are available in 2 to 216 count fiber constructions. These cables have been thoroughly tested in accordance with Telcordia GR-20, GR-409 ICEA S-87-640, and ICEA-696 standards, where applicable.

BUFFER TUBE CONSTRUCTION

DryGel blocked color coded loose tubes containing up to 12, 250 µm, individually colored fibers.

STANDARDS

International	ISO/IEC 11801
European	EN 50173
North American	Telcordia GR-409 & GR-20
	EIA/TIA-568B
	ICEA S-104-696 & ANSI/ICEA S-87-640
	OFNR/FT4
	OFNP/FT6

APPLICATIONS

Berk-Tek's ADVENTUM Loose Tube, Riser Rated, or Plenum Rated fiber optic cable is intended for all high speed data applications, including:

IEEE 802.3 FOIRL	10 Mb/s
IEEE 802.3 10BASE-F	10 Mb/s
IEEE 802.3 1000BASE-SX/LX	1000 Mb/s
IEEE 802.3 10GBASE-X	10 Gb/s
FDDI	100 Mb/s
ATM	155 Mb/s
	622 Mb/s
	1.2/2.4 Gb/s
Fibre Channel FC-PL-2	1.065 Gb/s
	2.125 Gb/s
	4.25 Gb/s

- Not Recommended for installations longer than 2 kilometers.

FEATURES

- Designed to support Gigabit Ethernet, Gigabit ATM, Fibre Channel and other high-speed applications
- Riser or plenum rating enables installation to go directly from outside plant to riser shaft or through plenum spaces
- Cable Core and Buffer Tubes use DryGel water blocking system
- All dielectric design
- Interlocking Armor available

BENEFITS

- Compact, water blocked, plenum or riser rated, flexible loose tube design of all dielectric construction allows for installation in any outside plant or interior space
- No cleaning of gels required for installation, greatly reducing installation time and cost
- Transition points in network are not needed
- System grounding requirements are eliminated
- New 0X0 (24F) construction offers ≥ 50% improvement in conduit utilization

TEMPERATURE RATING

Operation	-40°C to +75°C
Storage	-40°C to +85°C
Installation	-20°C to +60°C



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TYPICAL ADVENTUM CABLE CROSS SECTIONS (Not to scale)



LTR012
(Standard 6-12F)

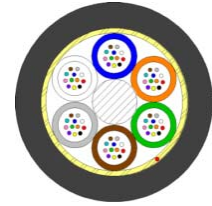
Patent Pending



LTR0X0
(Standard for 18F or 24F)



LTR12B0xx
(Standard 36F-48F)



LTR12Bxxx
(Standard 060F-216F)

RISER CABLE SPECIFICATIONS

- 2-24 fiber tensile strength to 300 lbs. for installation
- 36-216 fiber tensile strength to 600 lbs. for installation
- These cables offer the highest packing density of loose tube cables in a riser rated design
- Designed to stand up to rigors of the outside plant environment
- Easy to terminate

PART NUMBER SELECTION GUIDE

- Select the product prefix corresponding to the cable configuration and quantity of fibers you require. Use Table A.
- Select your required optical fiber suffix using Table C or Table D.

NOTE: ADVENTUM Riser cables incorporate a black cable sheath regardless of fiber type.

RISER RATED TECHNICAL DATA – PHYSICAL (TABLE A)

FIBERS	PRODUCT PREFIX	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
		in.	mm	lb./kft.	kg/km	INSTALL		LONG TERM		INSTALL		LONG TERM	
2	LTR002	0.255	6.5	30	45	3.8	9.7	2.6	6.5	300	1335	90	400
4	LTR004	0.255	6.5	30	45	3.8	9.7	2.6	6.5	300	1335	90	400
6	LTR006	0.255	6.5	30	45	3.8	9.7	2.6	6.5	300	1335	90	400
8	LTR008	0.255	6.5	30	45	3.8	9.7	2.6	6.5	300	1335	90	400
12	LTR012	0.255	6.5	30	45	3.8	9.7	2.6	6.5	300	1335	90	400
18	LTR0X018*	0.245 x 0.495	6.2 x 12.6	54	80	7.4	18.9	5.0	12.6	300	1335	90	400
24	LTR0X024*	0.245 x 0.495	6.2 x 12.6	54	80	7.4	18.9	5.0	12.6	300	1335	90	400
24	LTR12B024**	0.396	10.1	55	82	5.9	15.1	4.0	10.1	600	2670	200	890
36	LTR12B036	0.396	10.1	55	82	5.9	15.1	4.0	10.1	600	2670	200	890
48	LTR12B048	0.396	10.1	55	82	5.9	15.1	4.0	10.1	600	2670	200	890
60	LTR12B060	0.467	11.9	89	132	7.0	17.8	4.7	11.9	600	2670	200	890
72	LTR12B072	0.467	11.9	89	132	7.0	17.8	4.7	11.9	600	2670	200	890
84	LTR12B084	0.510	13.0	115	171	7.7	19.4	5.1	13.0	600	2670	200	890
96	LTR12B096	0.541	13.7	138	205	8.1	20.6	5.4	13.7	600	2670	200	890
108	LTR12B108	0.591	15.0	154	229	8.9	22.5	5.9	15.0	600	2670	200	890
120	LTR12B120	0.636	16.2	175	260	9.5	24.2	6.4	16.2	600	2670	200	890
132	LTR12B132	0.672	17.1	198	295	10.1	25.6	6.7	17.1	600	2670	200	890
144	LTR12B144	0.713	18.1	226	336	10.7	27.2	7.1	18.1	600	2670	200	890
216	LTR12B216	0.730	18.5	160	238	11.0	27.8	7.3	18.5	600	2670	200	890

* LTR0X0 is the standard configuration for an 18F or 24F cable.

**18F or 24F Loose Tube Round constructions (12B0xx) are available as an option.

LOOSE TUBE

FIBER OPTIC CABLE

ADVENTUM™



- Single-mode, Multimode and GIGAlite™
- Outdoor/Indoor
- Plenum or Riser Flame Rated
- RoHS Compliant
- All-Dry Construction



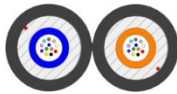
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TYPICAL ADVENTUM CABLE CROSS SECTIONS (Not to scale)



LTP012
(Standard 6-12F)

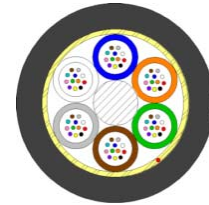
Patent Pending



LTP0X0
(Standard for 18F or 24F)



LTP12B0xx
(Standard 36F-48F)



LTP12Bxxx
(Standard 60F-216F)

PLENUM CABLE SPECIFICATIONS

- 2-24 fiber tensile strength to 300 lbs. for installation
- 36-216 fiber tensile strength to 600 lbs. for installation
- These cables offer the highest packing density of loose tube cables in a plenum rated design
- Designed to stand up to rigors of the outside plant environment
- Easy to terminate

PART NUMBER SELECTION GUIDE

- Select the product prefix corresponding to the cable configuration and quantity of fibers you require. Use Table B.
- Select your required optical fiber suffix using Table C or Table D.

NOTE: ADVENTUM Plenum cables incorporate a cable sheath based upon the type of optical fiber selected.

- Orange Sheath – 62.5/125µm (CB, GB) or Standard 50/125µm (LB)
- Aqua Sheath – Laser Optimized 50/125µm (EB, XB)
- Yellow Sheath – Enhanced Single-mode, ITU-T G.652D Compliant (AB)

PLENUM RATED TECHNICAL DATA – PHYSICAL (TABLE B)

FIBERS	PRODUCT PREFIX	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
		in.	mm	lb./kft.	kg/km	INSTALL		LONG TERM		INSTALL		LONG TERM	
						in.	cm	in.	cm	lb.	N	lb.	N
2	LTP002	0.260	6.6	32	48	3.9	9.9	2.6	6.6	300	1335	90	400
4	LTP004	0.260	6.6	32	48	3.9	9.9	2.6	6.6	300	1335	90	400
6	LTP006	0.260	6.6	32	48	3.9	9.9	2.6	6.6	300	1335	90	400
8	LTP008	0.260	6.6	32	48	3.9	9.9	2.6	6.6	300	1335	90	400
12	LTP012	0.260	6.6	32	48	3.9	9.9	2.6	6.6	300	1335	90	400
18	LTP0X018*	0.245 x 0.495	6.2 x 12.6	54	80	7.4	18.9	5.0	12.6	300	1335	90	400
24	LTPOX024*	0.245 x 0.495	6.2 x 12.6	54	80	7.4	18.9	5.0	12.6	300	1335	90	400
24	LTP12B024**	0.370	9.4	55	82	5.6	14.1	3.7	9.4	600	2670	200	890
36	LTP12B036	0.370	9.4	55	82	5.6	14.1	3.7	9.4	600	2670	200	890
48	LTP12B048	0.370	9.4	55	82	5.6	14.1	3.7	9.4	600	2670	200	890
60	LTP12B060	0.460	11.7	68	101	6.9	17.5	4.6	11.7	600	2670	200	890
72	LTP12B072	0.460	11.7	68	101	6.9	17.5	4.6	11.7	600	2670	200	890
84	LTP12B084	0.486	12.3	142	211	7.3	18.5	4.9	12.3	600	2670	200	890
96	LTP12B096	0.526	13.4	154	229	7.9	20.0	5.3	13.4	600	2670	200	890
108	LTP12B108	0.567	14.4	173	257	8.5	21.6	5.7	14.4	600	2670	200	890
120	LTP12B120	0.607	15.4	184	274	9.1	23.1	6.1	15.4	600	2670	200	890
132	LTP12B132	0.648	16.5	197	293	9.7	24.7	6.5	16.5	600	2670	200	890
144	LTP12B144	0.693	17.6	212	315	10.4	26.4	6.9	17.6	600	2670	200	890
216	LTP12B216	0.700	17.8	176	262	10.5	26.7	7.0	17.8	600	2670	200	890

* LTP0X0 is the standard Loose Tube configurations for 18F and 24F cables.

**18F or 24F Loose Tube Round constructions (12B0xx) are available as an option.



FIBER TECHNICAL DATA - MULTIMODE (TABLE C)

FIBER TYPE	FIBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz*km)	LENGTH (meters @ 850/1300 nm)
62.5/125 μm – Standard	CB3510/25	850/1300	3.5/1.0	200 ¹ /500 ¹	1 GbE - 300/600 ³
62.5/125 μm – GIGAlite™	GB3510/25	850/1300	3.5/1.0	200 ¹ /500 ¹	1 GbE – 500/1000 ³
50/125 μm – GIGAlite™	LB3010/75	850/1300	3.0/1.0	950 ² /500 ¹	1 GbE – 750/600 ³
50/125 μm – GIGAlite-10	EB3010/25	850/1300	3.0/1.0	2000 ² /500 ¹	10 GbE – 300/300 ³
50/125 μm – GIGAlite-10XB	XB3010/X5	850/1300	3.0/1.0	4900 ² /500 ¹	10 GbE – 600/300 ³

¹ Overfilled launch per EIA/TIA-455-204.

² Effective Modal Bandwidth (EMB) as characterized by Differential Mode Delay (DMD) measurement per EIA/TIA-455-220. Minimum OFL bandwidth @ 850 nm per EIA/TIA-455-204 is 700 MHz*km for GIGAlite, 1500 MHz*km for GIGAlite-10, and 3675 MHz*km for GIGAlite-10XB.

³ 10GbE transmission distance @ 1300 nm applies to 10GBASE-LX4 (CWDM) only.

FIBER TECHNICAL DATA - SINGLE-MODE (TABLE D)

FIBER TYPE	FIBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz*km)	LENGTH (meters @ 1310 nm)
Enhanced Single-Mode Fiber	AB0504	1310/1550	0.5/0.4 ¹	N/A	1 GbE ≥ 5km

¹ Different attenuation values available. SMF compliant to ITU-T G.652D. Call 1-800-BERK-TEK for the most current specifications. Please visit our website at www.berktek.com. Berk-Tek reserves the right to modify optical performance specifications without prior notice.

CRITICAL DESIGN PERFORMANCE AND COMPLIANCE DIFFERENCES

Adventum cables meet the most stringent requirements set forth in the industry standards for cables installed in an outdoor environment. These include TIA/EIA, ANSI/ICEA, and Telcordia standards and specifications. This table references those standards and specifications.

STANDARD	OUTDOOR or INDOOR	ADVENTUM™ COMPLIANCE	TIGHT BUFFERED COMPLIANCE
TIA/EIA-568-B.3 (4.3.1)	Indoor	Yes	Yes
Telcordia GR-409	Indoor	Yes	Yes
ANSI/ICEA S-83-596	Indoor	Yes	Yes
ANSI/ICEA S-104-696	Outdoor/Indoor	Yes	Yes (Special Design)
TIA/EIA-568-B.3 (4.3.2)	Outdoor	Yes	No
Telcordia GR-20	Outdoor	Yes	No
ANSI/ICEA S-87-640	Outdoor	Yes	No

For more information please visit our website at www.berktek.com