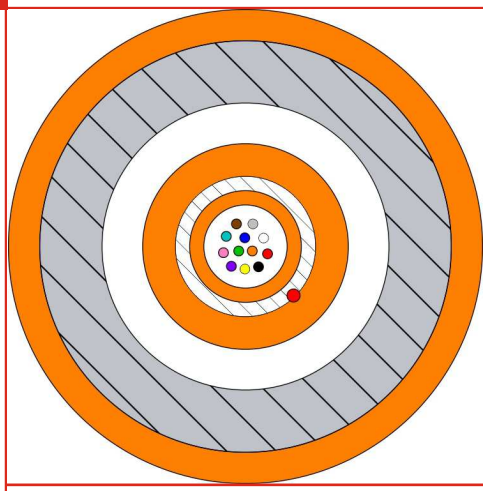
Indoor/Outdoor Plenum Adventum® w/ Armor-Tek™ (LTPK)

12 x OM1 Adventum Plenum with Interlock Armor

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Part Number: LTPK012CB3510/25

Berk-Tek's Adventum Armor-Tek products consist of indoor/outdoor rated fiber optic loose tube cables encased with an aluminum spirally wrapped armor in an interlocking configuration. The armored cable is then covered with a plenum rated jacket to prevent snags during installation.

DESCRIPTION

Construction

Loose tube cable constructions (up to 432 optical fibers) with aluminum interlock armor and an overall plenum flame rated jacket.

Applications

Armor-Tek fiber cables can be used in any of the following installation enviroments: indoor/outdoor, in backbones, between closets and in fiber to the desk. Armor-Tek is a viable and cost effective solution for applications where a pathway is beyond its full ratio, for areas where extra physical security is a concern, in fast track installations, between buildings, or in trays.

Berk-Tek recommends installation procedures per ANSI/TIA-758, Customer-owned Outside Plant Telecommunications Infrastructure Standard.

Berk-Tek's Adventum Loose Tube fiber optic cables (U.S. Patent No. 6,178,278) are suitable for all passive and active optical network designs requiring high speed data applications, including (but not limited to):

- 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): RFoG, APON, BPON, EPON, GPON, WDM-PON, NG-PON

Features

- Multimode, Single-mode and GIGAlite™ fibers
- Available with new bend-optimized single-mode fibers
- Jacketed armor remains flexible due to the spiral wrap armoring process
- Easy one-pull installation into any environment
- Compact outside diameters when compared to plenum innerduct or conduit
- High tensile strength, crush resistant
- UV resistant outer jacket protects the cable in outside plant installations
- Available Harsh Environment (HE), cables offer superior resistance to chemicals and fuels. Suitable for Petro-Chemical, Industrial, and airport installations.

STANDARDS

International EN 50173; ISO/IEC 11801

National ANSI/ICEA S-104-696; ANSI/ICEA S-83-596; ANSI/TIA-568.3-D; NFPA 130; Telcordia GR-409

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Benefits

- Eliminates the need for conduit or plenum innerduct
- Significant cost savings in both materials and labor - up to 25%
- Accommodates last minute relocations or pathway changes
- Provides a higher concentration of cables in an area than conduit
- Can be installed in campus environments due to the durability and indoor/outdoor rating of the cable
- Armor provides crush protection and protection from rodent attacks

CHARACTERISTICS

Construction characteristics	
Fiber optic type	OM1 62.5/125
Type of cable	Loose tube
Jacket Material	Plenum
Sheath colour	Orange
Armour type	Aluminum Interlock
Dimensional characteristics	
Tube diameter	3 mm
Number of optical fibres	12
Cable diameter (Nominal)	0.62 in
Nominal outer diameter	15.7 mm
Nominal cable weight	136 lb/kft
Approximate weight	202 kg/km
Transmission characteristics	
Optical performance	CB (62.5/125 Standard, OM1)
Attenuation, max. 850 nm (cabled)	3.5 dB/km
Attenuation, max. 1300 nm (cabled)	1.0 dB/km
Mechanical characteristics	
Maximum installation tension	300 lb
Maximum installation tension	1335 N
Max. Load. Long Term (lbs)	90.0 lb
Max. Load. Long Term	400.0 N
Crush resistance per TIA/EIA FOTP-41	440 N/cm
Cable flexibility per TIA/EIA FOTP-104	100 cycles
Impacts per TIA/EIA FOTP-25	2 at 5.88 N-m
Usage characteristics	
Minimum Bending Radius - Install	9.3 in
Minimum Bend Radius - Install	23.6 cm
Minimum Bending Radius - LongTerm	6.2 in
Minimum Bending Radius - LongTerm	15.7 cm
Recommended operating temperature range	-40 .. 75 °C
Ambient installation temperature, range	-20 .. 60 °C

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Usage characteristics	
Recommended storage temperature range	-60 .. 85 °C
Field of application	Indoor, Outdoor

LTPK CHARACTERISTICS

Fibers	Diameter		Weight		Minimum Bend Radius				Maximum Tensile Loading			
					Installation		Long Term		Installation		Long Term	
	in.	*mm*	*lb/kft.*	*kg/km*	*in.*	*cm*	*in.*	*cm*	*lb*	*N*	*lb*	*N*
2	0.620	15.7	135	202	9.3	23.6	6.2	15.7	150	667	45	200
4	0.620	15.7	135	202	9.3	23.6	6.2	15.7	150	667	45	200
6	0.620	15.7	136	202	9.3	23.6	6.2	15.7	150	667	45	200
8	0.620	15.7	136	202	9.3	23.6	6.2	15.7	300	1335	90	400
12	0.620	15.7	136	202	9.3	23.6	6.2	15.7	300	1335	90	400
18	0.730	18.5	178	265	11.0	27.8	7.3	18.5	300	1335	90	400
24	0.730	18.5	179	266	11.0	27.8	7.3	18.5	300	1335	90	400
36	0.730	18.5	179	267	11.0	27.8	7.3	18.5	300	1335	90	400
48	0.730	18.5	180	268	11.0	27.8	7.3	18.5	300	1335	90	400
60	0.774	19.7	220	327	11.6	29.5	7.7	19.7	600	2670	200	890
72	0.774	19.7	220	327	11.6	29.5	7.7	19.7	600	2670	200	890
96	0.851	21.6	247	368	12.8	32.4	8.5	21.6	600	2670	200	890
120	0.951	24.2	304	452	14.3	36.2	9.5	24.2	600	2670	200	890
144	1.004	25.5	359	535	15.1	38.3	10.0	25.5	1000	4448	300	1335
192	1.004	25.5	331	492	15.1	38.3	10.0	25.5	1000	4448	300	1335
216	1.004	25.5	331	493	15.1	38.3	10.0	25.5	1000	4448	300	1335
288	1.283	32.6	591	879	19.2	48.9	12.8	32.6	1000	4448	300	1335
432	1.295	32.9	644	958	19.4	49.3	13.0	32.9	1000	4448	300	1335

Operating Temperature	-40 C to +75 C
Installation Temperature	-20 C to +60 C
Storage Temperature	-60 C to +85 C

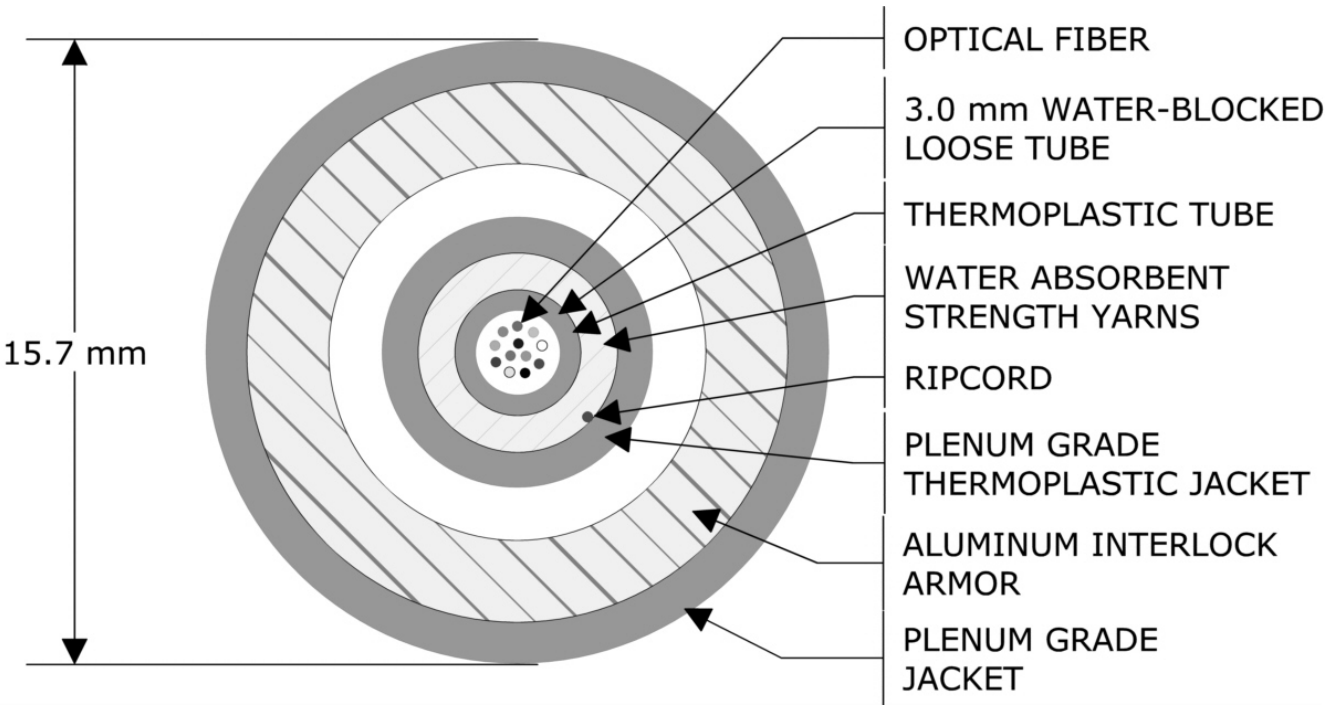
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STANDARD SHEATH COLORS

Fiber Type	Core Size (um)	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
CB	62.5	OM1	200 MHz-km	200 MHz-km	3.5 dB/km	1.0 dB/km	NS	Orange
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
XB	50	OM4+	4900 MHz-km	3675 MHz-km	3.0 dB/km	1.0 dB/km	NS	Violet
WB	50	OM5	4700 MHz-km	3500 MHz-km	3.0 dB/km	1.0 dB/km	NS	Lime Green
NS = Not Specified								

CROSS-SECTION DIAGRAM - LTPK012



MANUFACTURING RELEASE

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