

**Contact**

Fiber LAN Product Inquiry  
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## Adventum Plenum Rated Indoor/Outdoor Optical Cable

**24 x OS2 Adventum Plenum Cable**

**Part Number: LTP12B024AB0403**

Berk-Tek's revolutionary Outdoor/Indoor Adventum™ cables are designed to be used in 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 plenum installations and has no gel filler.

### Description

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™ 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 plenum cable (U.S. Patent No. 6,178,278) is available in 2 to 432 count fiber constructions. These cables have been thoroughly tested in accordance with Telcordia GR-409 Issue 2, ICEA-596 Edition 3, and ICEA-696 Edition 2 standards where applicable.

### Buffer Tube Construction

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

### Applications

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

Berk-Tek's Adventum Loose Tube, plenum rated fiber optic cable is intended for all high speed data applications, including:

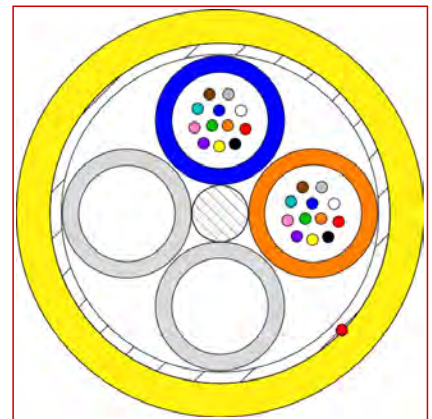
- 10BASE-FL
- 100BASE-SX/100BASE-FX
- ATM 155/ATM 622
- 1000BASE-SX/1000BASE-LX
- Fibre Channel 1.062/2.125
- 10GBASE-SR/SW
- 10GBASE-LX4
- 40/100 GbE

### Features

- Designed to support Gigabit Ethernet, Gigabit ATM, Fibre Channel and other high-speed applications
- 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
- UV resistant outer jacket protects the cable in outside plant installations

### Benefits

Compact, water blocked, plenum rated, flexible loose tube design of all dielectric



### Standards

**International** EN 50173; ISO/IEC 11801

**National** ANSI/ICEA S-104-696; ANSI/ICEA S-83-596; ANSI/TIA-568-C.3; NFPA 130; Telcordia GR-409

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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

#### Characteristics

Construction characteristics	
Fiber optic type	SM (G657.A1)
Type of cable	Loose tube
Jacket Material	Plenum
Sheath colour	Yellow
Dimensional characteristics	
Tube diameter	3 mm
Number of optical fibres	24
Cable diameter (Nominal)	0.37 in
Nominal outer diameter	9.4 mm
Nominal cable weight	55 lb/kft
Approximate weight	82 kg/km
Transmission characteristics	
Optical performance	AB (Single-mode, OS2)
Attenuation, max. 1310 nm (cabled)	0.4 dB/km
Attenuation, max. 1550 nm (cabled)	0.3 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
Impacts per TIA/EIA FOTP-25	2 at 4.41 N-m
Crush resistance per TIA/EIA FOTP-41	110 N/cm
Cable flexibility per TIA/EIA FOTP-104	100 cycles
Usage characteristics	
Minimum Bending Radius - Install	5.6 in
Minimum Bend Radius - Install	14.1 cm
Minimum Bending Radius - LongTerm	3.7 in
Minimum Bending Radius - LongTerm	9.4 cm
Operating temperature, range	-40 .. 75 °C
Ambient installation temperature, range	-20 .. 60 °C
Storage temperature, range	-60 .. 85 °C
Field of application	Indoor, Outdoor

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### Standard Sheath Colors

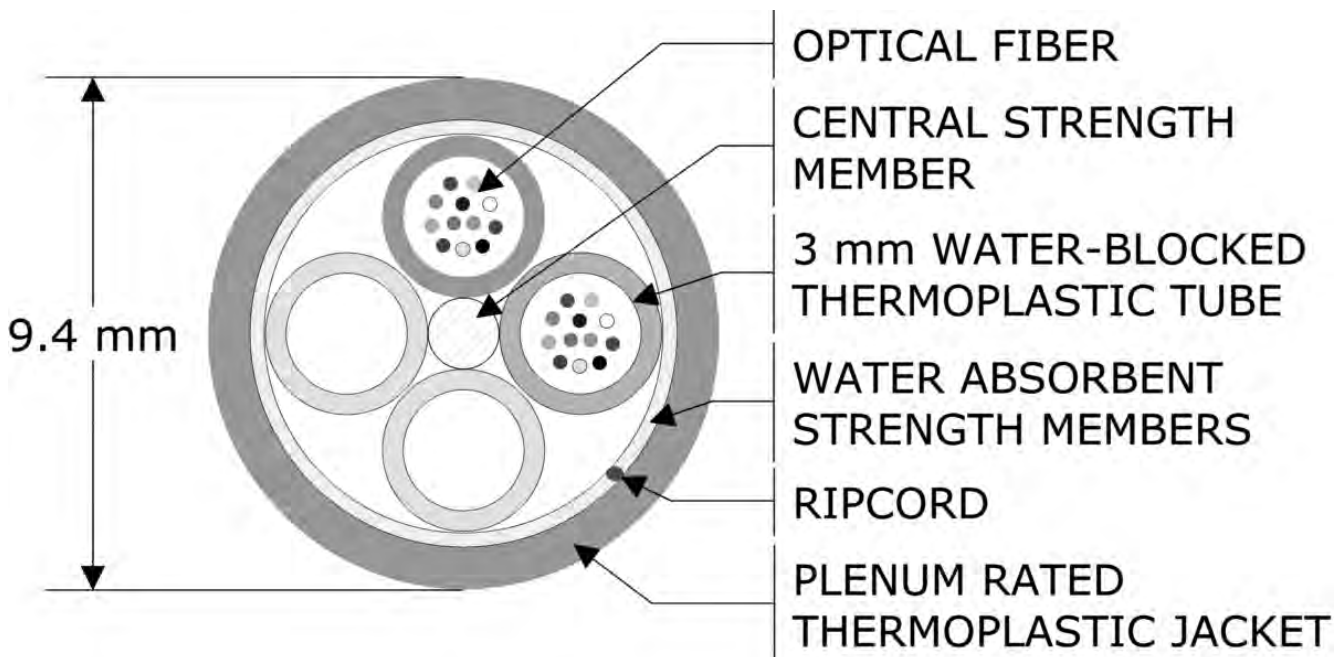
Fiber Type	Core Size (um)	ISO-TIA Standard	Effective Modal BW @ 850 nm	Overfilled Launch BW @ 850 nm	Attenuation @ 850 nm	Attenuation @ 1300 nm	Attenuation @ 1550 nm	Sheath Color
AB	8.3	OS2	NS	NS	NS	0.4 dB/km	0.3 dB/km	Yellow
CB	62.5	OM1	200 MHz-km	200 MHz-km	3.5 dB/km	1.0 dB/km	NS	Orange
GB	62.5	OM1+	500 MHz-km	350 MHz-km	3.5 dB/km	1.0 dB/km	NS	Orange
ZB	50	OM2	500 MHz-km	500 MHz-km	3.5 dB/km	1.5 dB/km	NS	Orange
LB	50	OM2+	950 MHz-km	700 MHz-km	3.0 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

NS = Not Specified

### Cable Pull Length and Cable Put-up Length - LTP12B024

Maximum Pull Length	Maximum Cable Put Up Length 72" reel
<i>feet</i>	<i>feet</i>
4746	16500

### Cross-section Diagram - LTP12B024



### Manufacturing Release

**IMPORTANT NOTICE:** This product specification is provided for informational purposes only in order to illustrate typical product constructions, applications and/or methods of installation. Because conditions

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