

BECAUSE YOUR BUSINESS RUNS THROUGH US

BERK-TEK **PRODUCT CATALOG**

The world's highest performing network cables have **Berk-Tek** written all over them.



Quick Tips for Using this Catalog

This catalog has been designed to allow you to quickly access the product information you need most.

Easily identify new products

Berk-Tek's **LANmark-10G FTP** is ideal for applications that require the most advanced cable performance and the additional signal isolation advantages of an FTP design. Completely characterized using power sum crosstalk, LANmark-10G FTP Cat 6a introduces new electrical performance parameters to an FTP cable, addressing the needs of full duplex operation over four pairs.

FEATURES

- ▶ ETL verified to TIA/EIA-568-C.2
- ▶ Outstanding signal isolation
- ▶ Resistant to alien crosstalk

BENEFITS

- ▶ Increased signal integrity entering cabling system
- ▶ Completely compliant with IEEE requirements
- ▶ Lower bit errors resulting in increased network performance

CONSTRUCTION

23 AWG, bare copper wire insulated with FEP. Two insulated conductors twisted together with varying layers to form a pair and four pairs laid up to form the basic unit. The cable is shielded with an overall polyester/aluminum foil with stranded tinned copper drain wire and jacketed in flame retardant PVC.

FLAME RATING

Plenum—NFPA 262

STANDARDS

North American ANSI/TIA/EIA-568-C.2
UL 444 and C22.2
No. 214-02

International IEC 61156-5
ED2.0_46C844CDV
EU Directive
2002/95/EC (RoHS)

APPLICATIONS

Berk-Tek's LANmark-10G FTP cable is intended for high-speed data applications up to 500 MHz including:

IEEE 802.3	10GBASE-T	10 Gb/s
IEEE 802.3	1000BASE-T	1 Gb/s
TIA/EIA-854	1000BASE-TX	1 Gb/s
ATM	155 Mb/s	155 Mb/s
IEEE 802.3	100BASE-TX	100 Mb/s
CDDI		100 Mb/s

Applicable cable standards clearly listed

Application standards detailed

Easy to read part numbers and specifications

PART NUMBERS	CMP	CMR
Gray 1000 ft. Reel	10167487	10189798
White 1000 ft. Reel	10167485	10189801
Blue 1000 ft. Reel	10143424	10189567
Yellow 1000 ft. Reel	10167488	10189803

TECHNICAL DATA — PHYSICAL	CMP	CMR
Conductor	23 AWG solid bare copper	23 AWG solid bare copper
Conductor Diameter	0.023 in.	0.022
Insulated Conductor Diameter	0.046 in.	0.044
Cable Diameter	0.280 in.	0.300
Cable Weight	40 lbs./kft.	38 lbs./kft.
Min. Bend Radius	1.12 in.	1.20 in.
TECHNICAL DATA — ELECTRICAL	CMP	CMR
Velocity of Propagation	72% nom.	72% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.
Input Impedance	100 ± 13% 0.772-100 MHz 100 ± [13+15log (F/100)] 100-350 MHz	

LANMARK™ -10G FTP

F/UTP/4-PAIR
CATEGORY 6a

NEW



TEMPERATURE RATING

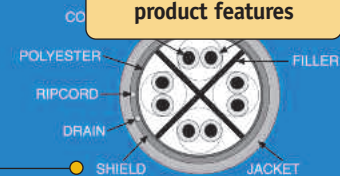
	CMP
OPERATION	-20°C to +60°C
INSTALLATION	0°C to +50°C



AT A GLANCE

- ▶ One overall foil shield
- ▶ Guaranteed to CAT 6a
- ▶ Superior alien crosstalk performance

Key applications and product features



Cross-sectional diagrams clearly illustrate product construction

What's Inside

Pages are color coded by product type.

- UTP Copper
- High Pair Count Copper
- F/UTP Copper
- PIMF Copper
- Low Skew
- Fiber Optic Tight Buffered
- Fiber Optic Loose Tube
- Fiber Optic Accessories

Icons indicate which specialized markets are best served by particular products

(See page 6 for details)

www.berktek.com

Need to locate a distributor, get in touch with the Berk-Tek Manufacturer's Rep for your area, or just want to learn more about using UTP for CCTV?

The Berk-Tek Web site features complete product specifications, technical white papers, articles, installation guidelines, bid specifications and more. Visit www.berktek.com for all your cabling product informational needs.



Quick search terms allow rapid access to complete technical specifications listed on www.berktek.com

In the interest of product improvement, Berk-Tek, a Nexans company may make improvements or changes in the products, the programs or services described at any time without notice. Additionally, the information contained herein may include typographical errors or technical inaccuracies. Changes will be periodically made to address any such issues.

All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Nexans is indicative only and shall not be binding on Nexans or be treated as constituting a representation on the part of Nexans.

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Quality Made in the USA

Berk-Tek cables are manufactured at three different locations within the United States: New Holland, PA, Fuquay-Varina, NC, and Elm City, NC. Each of these locations focuses on different types of data communications cabling. This specialization allows for the development of expertise and process control and ensures that your cables meet the highest quality standards.

Berk-Tek's commitment to manufacturing excellence and leadership can be seen in our many continuous improvement programs. We utilize an automated shop floor data acquisition system that is able to track over 100 different product and process quality parameters, and we continue to cultivate internal Six Sigma Quality experts. All of these efforts are undertaken to ensure consistent product quality for our customers.

Berk-Tek is a proud US manufacturer committed to maintaining US jobs and meeting the needs of our domestic customers, but the story does not end there. When you work with Berk-Tek, you work with Nexans, the global expert in cables and cabling systems. With a presence in 30 countries and more than 21,000 employees worldwide, you have access to the collective expertise and reach of an organization that is focused on leading the development of innovative cabling technology for new markets and new opportunities.

THE NEXANS DATA COMMUNICATIONS COMPETENCE CENTER

The Data Communications Competence Center is a state-of-the-art research and development facility located at the Berk-Tek headquarters in New Holland, PA. It is part of Nexans' worldwide R&D network of competence centers.

The Competence Center offers extensive technical expertise and capabilities by focusing on:

- ▶ Advanced product design and analysis
- ▶ Standardization and emerging technologies
- ▶ Advanced material development
- ▶ Application engineering and development
- ▶ Advanced manufacturing processes

Through sophisticated design, analysis and modeling tools, an international team explores the complex interaction of characteristics that influence network performance. From optimizing legacy LAN cabling systems to leading edge, multi-gigabit data communications networks, the Competence Center provides a reliable benchmark for both product and technology development.

THE RESULT: more robust network operations, reduced cost of ownership, and industry-leading solutions that routinely exceed expectations for performance and reliability.

Delivering Unmatched Performance and Guaranteed Reliability Since 1961.

With Berk-Tek, you get unmatched product performance with guaranteed reliability from a world-class manufacturer focused on delivering cabling excellence. See for yourself.

OUTSTANDING PRODUCT PERFORMANCE

Product performance begins with strong engineering and design. The outstanding Berk-Tek product, process and manufacturing engineers are backed by an array of researchers and engineers within the Nexans R&D network. The dynamic interplay between the research, development and manufacturing focuses of our engineering teams delivers products guaranteed to perform.

GUARANTEED RELIABILITY

Reliable product performance comes from the combination of a well-engineered product and stringent manufacturing processes. With state-of-the-art equipment for manufacturing, monitoring and testing, Berk-Tek facilities consistently exceed quality standards. Every product is backed by our product warranty, and when installed as part of an OASIS or NetClear System, extended warranties of 15 and 25 years, respectively, are available.

CUSTOMER FOCUS

Our highly qualified sales force and technical support team provide industry expertise and experience to guide you through the entire project lifecycle, from the development of the design specification, through the bidding process, to purchasing, installation and support.

READILY AVAILABLE

You have many choices of where to buy Berk-Tek products as they are in stock with a variety of distribution channels nationwide. All of our distribution partners are committed to providing you with high-quality customer service and will work with you to ensure that your materials are available on time.

CERTIFIED INSTALLERS

Berk-Tek certifies only the most qualified cable installers who understand the applicable codes, guidelines and product capabilities, ensuring maximum network performance and proper installation.

EXTENSIVE EXPERTISE AND EXPERIENCE

Working with Berk-Tek means that you have a partner that has experience in virtually every installation and application environment, including stadiums, schools, airports, data centers and countless campuses and office buildings worldwide.

Berk-Tek and Nexans help to guide the development of the standards that govern the structured cabling industry. With positions on industry steering committees, we facilitate the evolution of best practices.

COMPREHENSIVE PRODUCT ARRAY

Berk-Tek offers one of the most complete product lines in the industry. Our product array continues to grow with enhancements to existing products and the addition of specialized cables to meet the specific needs of new markets and new applications.

LEADING CORPORATE CITIZEN

In addition to our focus on exceeding technical cabling requirements, we also strive to be a leading corporate citizen. With environmentally conscious manufacturing programs, progressive employment policies and a pledge to maintaining high-quality manufacturing facilities and jobs within the United States, Berk-Tek is committed not only to our customers, but also to our communities.

GLOBAL REACH

When you work with Berk-Tek, you access the entire Nexans global organization. This provides you with the support of an organization that is focused on leading the development of cabling technology into new markets worldwide.



WORKING FOR A GREENER FUTURE.



Berk-Tek, a leader in the evolution of cabling technology, is working to be a leader in ecological responsibility. A greater understanding and appreciation of the impact of manufacturing processes and product components on the environment has prompted Berk-Tek to control and ameliorate our impact with both process improvements and internal greening programs. As a result, Berk-Tek continues to earn the EHP (Environment Highly Protected) label, the highest environmental rating per the ISO 14.001 standards. From innovative materials development, through positive manufacturing practices and on to standards bodies contributions, Berk-Tek truly does work to steward the planet.

ROHS

All products in this catalog manufactured in New Holland, PA, Elm City, NC, and in Fuquay-Varina, NC, meet the European Union's Restriction of Hazardous Substances (RoHS) requirements. This standard requires that products be free of lead and various other heavy metal compounds that have been shown to be detrimental to both people and the environment. By being RoHS compliant, Berk-Tek products are also compliant with California's Proposition 59, another leading piece of environmental legislation focused on improving the natural environment and safeguarding human life.

RECYCLING

In an ideal world, no Berk-Tek scrap cable would be found in any landfills. And while that isn't the case today, we can say that we are working hard to eliminate contributions to landfills from our manufacturing facilities. Our scrap cable jacketing is reprocessed for use in other products, while our reusable copper can go back into cables or be reprocessed for other uses. In 2006, over 18 tons of copper, aluminum, and plastic were recovered. Whenever possible we have transitioned from wooden reels to plastic reels

that are made from 100% recycled materials and are themselves recyclable. Additionally, Berk-Tek has instituted an internal recycling program for all office paper and cardboard. And we continue to research new environmentally friendly materials for our products.

RAW WATER

Berk-Tek uses an evaporation system to handle the water used throughout the manufacturing process. All sanitary water is treated on-site and meets strict EPA standards before being released into the environment. This prevents approximately 200,000 gallons of contaminated water from entering our local rivers and lakes.

ENERGY EFFICIENT LIGHTING

Energy efficient lighting for manufacturing facilities and offices has enabled Berk-Tek to reduce our total energy demand by 10%. Installing this technology has significantly reduced the amount of carbon dioxide released into the environment — equal to saving 367 acres of forest or removing 233 cars from the road each year.

Delivering Reliability with Co-engineered Solutions.

NetClear, a technology alliance between Berk-Tek and Legrand | Ortronics, provides technically advanced, co-engineered structured cabling systems with a comprehensive 25-year warranty with guaranteed performance above the standard. The NetClear alliance is the strongest and longest-lasting partnership in the industry today.

NetClear[®]
STRUCTURED CABLING

NetClear structured cabling systems include a complete portfolio of copper and optical fiber solutions that feature industry leading performance for every application and environment. Every component of a NetClear solution has been co-engineered by the cable experts at Berk-Tek and the connectivity experts at Legrand | Ortronics to ensure optimal installed channel performance. From standard voice networks, including Voice over IP, to the latest 40/100 Gb/s high-speed data systems and innovative data center solutions, there is a NetClear solution designed to provide unparalleled reliability.

With the NetClear structured cabling systems, Berk-Tek and Legrand | Ortronics deliver reliability for the data center, enterprise LAN, financial, education, healthcare and many other environments.

The Advantage of an Open Architecture Approach.

Fully leveraging high-speed network applications in the enterprise requires a structured cabling system that exceeds current and emerging standards, end-to-end. To achieve optimal network performance, every component in the system must be fully compatible, perfectly matched and expertly installed. The Berk-Tek Open Architecture Systems Interconnection Solutions (OASIS) program is powerful enough to deliver guaranteed performance over a full 15 years, yet flexible enough to utilize your preference for connectivity with Hubbell Premise Wiring, Leviton, Legrand | Ortronics or Siemon. All OASIS connectivity partners are carefully selected and qualified.

OASIS
Open Architecture Systems
Interconnection Solutions

OASIS: GUARANTEED TOTAL SYSTEM PERFORMANCE

The Berk-Tek OASIS program is designed specifically to address component compatibility and installation variables in the structured cabling system and deliver guaranteed total system performance. At its core, OASIS utilizes Berk-Tek's premier LANmark™ series of UTP cables and our premium fiber optic technology in concert with connectivity provided by the industry's leading vendors. Every OASIS solution is carefully matched and qualified through extensive research and testing, providing guaranteed total channel performance and unmatched flexibility.

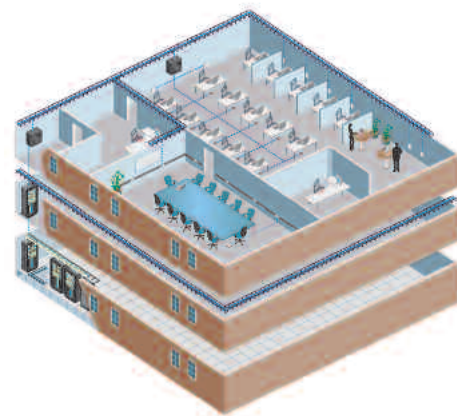
WARRANTIES

SERVING THE NEEDS OF SPECIALIZED MARKETS

At Berk-Tek, we know there is no such thing as one-size fits all. Different application spaces require custom solutions to handle particular requirements and rigors not found every day. So whether it is addressing the density challenges of data centers or the cost management requirements of municipal governments and school districts, Berk-Tek has a solution for you. Throughout this catalog, look for icons on each product page highlighting those environments where each product delivers special benefits.

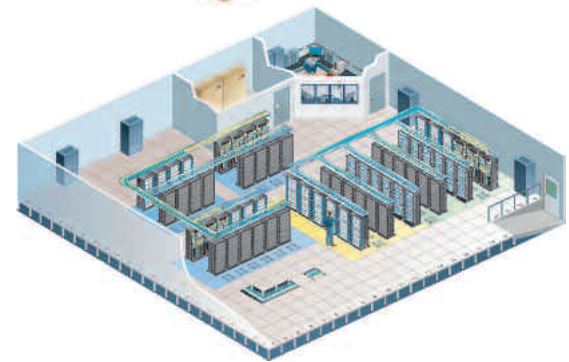
LAN/Enterprise

Installing the right network for the long-term with solutions for 1G, 10G and beyond.



Data Center/SANs

Providing high-bandwidth and high-density solutions with small diameter 10G copper cabling and 40G/100G capable optical fiber to support expanding user needs.



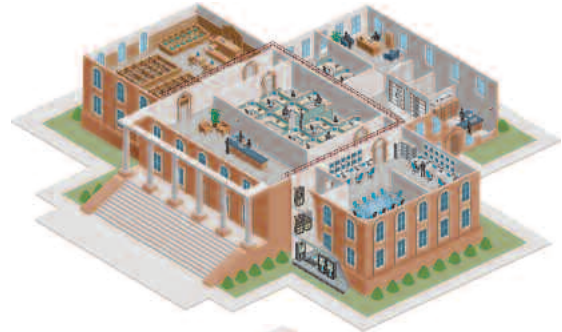
Security

Enabling video surveillance and access control through a standards-based UTP and optical fiber IP architecture simplifies network management and readies organizations for the future.



Government

Securing networks with specialized optical fiber and shielded copper cabling.



Education

Supporting connected classrooms with cost-effective advanced cabling options.



Financial

Eliminating downtime and maximizing the value of the cabling infrastructure with robust and reliable options with guaranteed headroom on key performance parameters.



Healthcare

Reliably connecting physicians to patient data and diagnostic test results with unparalleled performance.



Hospitality

Security, entertainment and business processes all converge onto robust integrated systems leveraging the capabilities of high-speed data transmission supported by 10G networks.



BERK-TEK COPPER CABLES:

Innovative Manufacturing Excellence



Performing to ISO 9001 certification standards and the TL 9000 quality management system helps to drive continuous improvement, consistent quality and on-time delivery.

Berk-Tek's consistent quality and on-time delivery are the result of strategic and on-going investment in state-of-the-art manufacturing and testing equipment and continuous improvement programs.

From Nexans copper rod to final out-the-door products, Berk-Tek is committed to manufacturing cables with an extra margin of performance that separates us from the rest. All products are backed by engineering, research and full testing before leaving the manufacturing floor.

We guarantee superior product performance backed by value-added procedures, including:

- ▶ In-line data collection for drawing and extrusion
- ▶ Computerized on-time delivery schedule through machine reporting on each component of the manufacturing process
- ▶ On-line monitoring of eccentricity, capacitance, diameter and concentricity parameters
- ▶ Production comparison of each process and each parameter to determine the best process flow from batch to batch
- ▶ Primary line batching for more efficient production management
- ▶ In-line jacketing for production consistency
- ▶ Automated box packaging eliminates human error and provides smooth payout
- ▶ Automated labeling and data collection information for complete manufacturing traceability

PRODUCT HIGHLIGHTS

SPECIFY WITH CERTAINTY

When you specify any of the Berk-Tek LANmark products you can be sure that you are getting the performance you expect thanks to the ETL LANmark Verification Program.

While many manufacturers claim performance above the standard, Berk-Tek is the first manufacturer to independently verify performance not to the standard, but beyond the standard to our own specifications.

Through this program, Intertek, the world's largest independent testing, inspection and certification provider and proprietor of the ETL Verification Mark, independently selects and tests the Berk-Tek LANmark products to verify that performance meets or exceeds the guaranteed specification levels, ensuring that you receive the headroom you expect.

So put speculation and guesswork aside, and choose the only manufacturer providing independent verification of performance to product specifications: Berk-Tek.

LANMARK™ -10G2

LANmark-10G2 delivers on the promise of true 10 Gigabit Ethernet performance and provides you with a smaller, round cable design that is easy to pull and terminate. The reduced size of this premium product allows you to more efficiently utilize and maximize available pathways and spaces, while also virtually eliminating alien crosstalk, the number one threat to the performance of your Category 6a structured cabling system.

LANMARK-10G FTP

LANmark-10G FTP cable provides EIA/TIA 568B.2-10 component compliant performance with only one overall foil shield. Berk-Tek's unique design eliminates the need to shield each of the four pairs individually, thereby minimizing installation time. LANmark-10G FTP provides superior alien crosstalk performance and is an excellent choice for 10G networks.

LANMARK-1000

LANmark-1000, a longtime leader in the Category 6 marketplace is now better than ever. With improved performance and the same simple installation and usability you have come to expect from Berk-Tek, LANmark-1000 is a natural choice for your Gigabit Ethernet performance needs.

LANMARK-6

With no center spline, LANmark-6 provides you with the convenience and dimensions approaching a typical Category 5e cable while guaranteeing Category 6 performance.



LANMARK™-10G2

UTP/4-PAIR

AUGMENTED CATEGORY 6



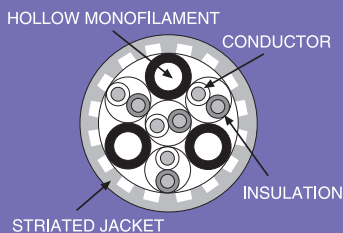
TEMPERATURE RATING

	CMP	CMR
OPERATION	-20°C to +60°C	-20°C to +75°C
INSTALLATION	0°C to +50°C	0°C to +50°C



AT A GLANCE

- ▶ Tested to 750 MHz
- ▶ Supports 10 Gigabit Ethernet
- ▶ Alien crosstalk compliant



LANMARK™-10G2 is the next-generation cable that is capable of meeting the demanding requirements for 10 Gigabit Ethernet. LANmark-10G2 is a true multimedia cable and is specifically designed to handle voice, video and data simultaneously. This convergence of technologies simplifies even the most dynamic network. This breakthrough cable technology has been specifically designed to reduce alien crosstalk and its effects on 10GBASE-T networks. It also provides 2 dB NEXT and PSNEXT headroom and 4 dB of FEXT and PSFEXT, for beyond the standards performance and reliability.

FEATURES

- ▶ Flexible, round, compact design
- ▶ Alien crosstalk compliant – ETL Verified
- ▶ Headroom for all crosstalk parameters
- ▶ Fully compliant to Augmented Category 6 requirements
- ▶ Documented balance characteristics (LCL/TCL, EL TCTL)
- ▶ Reduced attenuation (Insertion Loss)
- ▶ Highest-performing UTP cable available

BENEFITS

- ▶ Easier installation and cable management with round design
- ▶ Capable of reliably supporting 10GBASE-T networks
- ▶ Provides bandwidth required for multimedia, broadband video, analog video and other future applications
- ▶ Balance characteristics improve overall cable performance and reduce transmission errors
- ▶ Improved insertion loss for stronger signal to noise ratio
- ▶ Characterized to 750 MHz, 250 MHz greater than the standard

CONSTRUCTION

Bare copper wire insulated with polyethylene (non-plenum) or insulated with FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit made round with 3 monofilaments and with a striated flame-retardant PVC jacket.

FLAME RATING

Non-plenum—UL 1666, CMR, IEC 332-1
Plenum—NFPA 262, CMP
Patch—UL 1685, CM, IEC 332-1

ETL Listed

STANDARDS

North American ANSI/TIA/EIA-568-C.2
Augmented Category 6
UL 444 and C22.2
No. 214-02

International ISO/IEC 11801-
2nd Edition Category 6
EU Directive
2002/95/EC (RoHS)

APPLICATIONS

Berk-Tek's LANmark-10G2 UTP cable is intended to support the highest speeds in networking today—10 Gigabits per second.

IEEE 802.3	10GBASE-T	10 Gb/s
IEEE 802.3	1000BASE-T	1 Gb/s
TIA/EIA-854	1000BASE-TX	1 Gb/s
ATM	155 Mb/s	155 Mb/s
IEEE 802.3	100BASE-TX	100 Mb/s
CDDI		100 Mb/s
IEEE 802.3	10BASE-T	10 Mb/s

PART NUMBERS	CMP	CMR	PATCH
Gray 1000 ft. Reel	10137183	10137701	—
White 1000 ft. Reel	10137384	10137703	10177330
Blue 1000 ft. Reel	10130484	10137700	10123772
Orange 1000 ft. Reel	10138767	10138772	—
Yellow 1000 ft. Reel	10137385	10137706	—
Green 1000 ft. Reel	10137694	10138770	10135528

TECHNICAL DATA — PHYSICAL	CMP	CMR	PATCH
Conductor	23 AWG solid bare copper	23 AWG solid bare copper	26 AWG tinned stranded copper
Conductor Diameter	0.023 in.	0.023 in.	0.019 in.
Insulated Conductor Diameter	0.044 in.	0.047 in.	0.033 in.
Cable Diameter	0.300 in.	0.320 in.	0.290 in.
Cable Weight	43 lb./kft.	46 lb./kft.	40 lb./kft.
Min. Bend Radius	1.2 in.	1.3 in.	1.2 in.
TECHNICAL DATA — ELECTRICAL	CMP	CMR	PATCH
Velocity of Propagation	67% nom.	66% nom.	67% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.	45 nsec/100 m max.

Berk-Tek introduces the new **BERK-TEK-10G LD** (Limited Distance), delivering guaranteed 10G channel performance to a maximum distance of 60 meters with a small, 0.265" OD, Berk-Tek-10G LD is perfect for short distance applications where pathway space is at a premium.

BERK-TEK-10G LD

UTP
10G CATEGORY 6

FEATURES

- ▶ Small, round OD of 0.265"
- ▶ Conventional UTP cable design
- ▶ Designed to work with CAT 6A connectivity
- ▶ Can be installed in a common pathway with LANmark-10G2
- ▶ Verified to ANSI/TIA/EIA-568-C.2-10 Category 6A (internals) to a max. 60 meters

BENEFITS

- ▶ Guaranteed 10G performance
- ▶ No alien crosstalk testing required
- ▶ Minimize pathway costs thanks to reduced OD
- ▶ Improved air circulation compared to larger 10G cable choices
- ▶ Supports four-connector channel to 60 meters
- ▶ Supports seven meter minimum channel length with two connectors

CONSTRUCTION

Bare copper wire insulated with polyethylene and cellular polyethylene. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit around a central, splined filler. The pairs, filler and ripcord are then jacketed with a polymer alloy.

FLAME RATING

Riser—UL 1666, CMR
ETL Listed

STANDARDS

North American ANSI/TIA/EIA-568-C.2-10 Category 6A for internals to max 60 m.
UL 444 and C22.2 No. 214-02
International EU Directive 2002/95/EC (RoHS)

APPLICATIONS

Berk-Tek's 10G LD UTP cable is specifically designed to support 10 Gigabit channels at distances up to 60 meters. Additionally, Berk-Tek 10G LD supports the following high-speed data applications:

IEEE 802.3an	10GBASE-T	10Gb/s
IEEE 802.3	1000BASE-T	1 Gb/s
TIA/EIA 854	1000BASE-TX	1Gb/s
ATM	155 Mb/s	155 Mb/s
CDDI		100 Mb/s
IEEE 802.3	10 BASE-T	10 Mb/s

PART NUMBERS	CMP	CMR
Blue 1000 ft. Reel in a Box	10190333	10189758

TECHNICAL DATA — PHYSICAL	CMP	CMR
Conductor	23 AWG bare copper	23 AWG bare copper
Conductor diameter—in. (mm)	0.022 (0.558)	0.022 (0.558)
Insulated conductor diameter—in. (mm)	0.037 (0.940)	0.039 (0.990)
Cable diameter nom.—in. (mm)	0.265 (6.7)	0.265 (6.7)
Nominal cable weight—lb./kft. (kg/km)	33.5 (50)	33.5 (50)
Min. bend radius—in. (mm)	1.06 (26.9)	1.06 (26.9)
TECHNICAL DATA — ELECTRICAL	CMP	CMR
Velocity of Propagation	72.60%	69.20%
Time Delay Skew	45 nsec/60 m max.	45 nsec/60 m max.



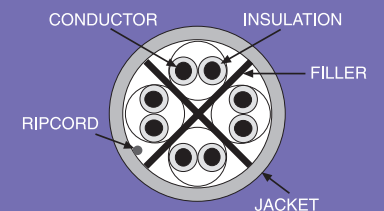
TEMPERATURE RATING

	CMP	CMR
OPERATION	-20°C to +60°C	-20°C to +75°C
INSTALLATION	0°C to +50°C	0°C to +50°C



AT A GLANCE

- ▶ Tested to 500 MHz
- ▶ Specialized design for short-reach 10G needs
- ▶ Small OD for simplified installation



LANMARK™ -2000

UTP/4-PAIR
PREMIUM CATEGORY 6



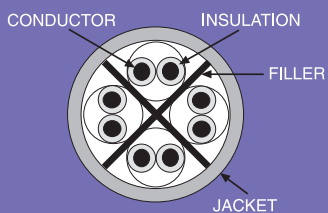
TEMPERATURE RATING

	CMP	CMR
OPERATION	-20°C to +60°C	-20°C to +75°C
INSTALLATION	0°C to +50°C	0°C to +50°C



AT A GLANCE

- ▶ Tested to 600 MHz
- ▶ Ideal for PoE and VoIP
- ▶ CCTV support



LANMARK™-2000 is Berk-Tek's highest-performing Premium Category 6 cable. Every key electrical property has been improved when measured against the TIA/EIA 568-B.2-1 Category 6 standard for transmitted signals, making them stronger and less susceptible to outside interference. LANmark-2000 is a true multimedia cable and is specifically designed to handle voice, video and data simultaneously.

FEATURES

- ▶ Full duplex operation capable over four cable pairs
- ▶ Increased usable bandwidth vs. the Category 6 standard
- ▶ Documented balance characteristics (LCL/TCL, EL TCTL)
- ▶ Reduced attenuation (Insertion Loss)
- ▶ ETL Verified to ANSI/TIA/EIA-568-C.2

BENEFITS

- ▶ Provides additional performance margin to reliably support Gigabit Ethernet in high-noise environments
- ▶ Provides bandwidth required for multimedia, broadband video, analog video and other future applications
- ▶ Balance characteristics improve overall cable performance and reduce cable emissions which results in reduced transmission errors
- ▶ Characterized to 600 MHz, 350 MHz greater than the standard

CONSTRUCTION

Bare copper wire insulated with polyethylene (non-plenum) or insulated with FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs laid up with crossfiller to form the basic unit jacketed with flame-retardant PVC.

FLAME RATING

Non-plenum—UL 1666, CMR
Plenum—NFPA 262, CMP
Patch—UL 1685, CM, IEC 332-1
UL Listed

STANDARDS

North American ANSI/TIA/EIA-568-C.2
UL 444 and C22.2
No. 214-02
International ISO/IEC 11801-
2nd Edition Category 6
EU Directive
2002/95/EC (RoHS)

APPLICATIONS

Berk-Tek's LANmark-2000 UTP cable is intended for high-speed data and multi-media applications including:

IEEE 802.3	1000BASE-T	1 Gb/s
TIA/EIA-854	1000BASE-TX	1 Gb/s
ATM	155 Mb/s	155 Mb/s
IEEE 802.3	100BASE-TX	100 Mb/s
CDDI		100 Mb/s
IEEE 802.3	10BASE-T	10 Mb/s
IP Video		
Broadband Video		

PART NUMBERS	CMP	CMR	PATCH*
Light Gray 1000 ft. Reel in a Box	10167307	10167479	10033598
White 1000 ft. Reel in a Box	10167312	10167481	10033821
Blue 1000 ft. Reel in a Box	10163780	10167477	10033822
Yellow 1000 ft. Reel in a Box	10167309	10167483	10033823
Green 1000 ft. Reel in a Box	10170669	10170688	10033825

*Reels only

TECHNICAL DATA — PHYSICAL	CMP	CMR	PATCH
Conductor	23 AWG solid bare copper	23 AWG solid bare copper	24 AWG tinned stranded copper
Conductor Diameter	0.022 in.	0.022 in.	0.024 in.
Insulated Conductor Diameter	0.037 in.	0.039 in.	0.040 in.
Cable Diameter	0.220 in.	0.231 in.	0.250 in.
Cable Weight	30 lb./kft.	27 lb./kft.	28 lb./kft.
Min. Bend Radius	1.0 in.	1.0 in.	1.0 in.
TECHNICAL DATA — ELECTRICAL	CMP	CMR	PATCH
Velocity of Propagation	72% nom.	72% nom.	70% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.	45 nsec/100 m max.
Input Impedance (1–100 MHz)	100 ohm +/- 13%	100 ohm +/- 13%	100 ohm +/- 13%
Input Impedance (100–500 MHz)	100 ohm +/- (13+15Log[F/100])%	100 ohm +/- (13+15Log[F/100])%	100 ohm +/- (13+15Log[F/100])%

LANMARK™-1000 is an ANSI/TIA/EIA Enhanced Category 6 verified cable that is ideal for Gigabit Ethernet network applications. Exceptional electrical characteristics include: PSNEXT, PSACR, PSELFEXT, ELFEXT, RL and LCL/TCL/EL TCTL (balance). LANmark-1000 was the first cable in the industry which set requirements for cable balance. Cable balance helps protect the network from the damaging effects of outside noise sources.

LANMARK™-1000

UTP/4-PAIR
ENHANCED CATEGORY 6

FEATURES

- ▶ Full power sum performance
- ▶ Documented balance characteristics (LCL, LCTL)
- ▶ ETL Verified to ANSI/TIA/EIA-568-C.2

BENEFITS

- ▶ Optimal support for Gigabit Ethernet with headroom
- ▶ Power sum characterization gives highest performance for existing applications
- ▶ Addition of balance requirements improves overall cable performance and reduces transmission errors
- ▶ Characterized to 550 MHz, 300 MHz greater than the standard

CONSTRUCTION

Bare copper wire insulated with polyethylene (non-plenum) or insulated with FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs laid up with crossfiller to form the basic unit, jacketed with flame-retardant PVC.

FLAME RATING

Non-plenum—UL 1666, CMR, IEC 332-1
Plenum—NFPA 262, CMP
Patch—UL 1685, CM, IEC 332-1
Low-Smoke Zero-Halogen—IEC 332-1
UL Listed

STANDARDS

North American ANSI/TIA/EIA-568-C.2
UL 444 and C22.2
No. 214-02
International ISO/IEC 11801-
2nd Edition Category 6
EU Directive
2002/95/EC (RoHS)

APPLICATIONS

IEEE 802.3	1000BASE-T	1 Gb/s
TIA/EIA-854	1000BASE-TX	1 Gb/s
ATM	155 Mb/s	155 Mb/s
IEEE 802.3	100BASE-TX	100 Mb/s
CDDI		100 Mb/s
IEEE 802.3	10BASE-T	10 Mb/s

PART NUMBERS	CMP	CMR	PATCH*
Gray 1000 ft. Tek Pak Box	10032026	10032452	10032678
White 1000 ft. Tek Pak Box	10032092	10032459	10032679
Blue 1000 ft. Tek Pak Box	10032094	10032455	10032680
Yellow 1000 ft. Tek Pak Box	10032090	10032461	10032681
Green 1000 ft. Tek Pak Box	10032097	10032479	10032693

*Reels only

TECHNICAL DATA — PHYSICAL	CMP	CMR	PATCH
Conductor	23 AWG solid bare copper	23 AWG solid bare copper	24 AWG tinned stranded copper
Conductor Diameter	0.022 in.	0.022 in.	0.024 in.
Insulated Conductor Diameter	0.037 in.	0.039 in.	0.040 in.
Cable Diameter	0.226 in.	0.228 in.	0.224 in.
Cable Weight	29 lb./kft.	25 lb./kft.	25 lb./kft.
Min. Bend Radius	1.0 in.	1.0 in.	1.0 in.
TECHNICAL DATA — ELECTRICAL	CMP	CMR	PATCH
Velocity of Propagation	72% nom.	69% nom.	70% nom.
Time Delay Skew	35 nsec/100 m max.	35 nsec/100 m max.	30 nsec/100 m max.
Input Impedance (1–100 MHz)	100 ohm +/- 13%	100 ohm +/- 13%	100 ohm +/- 13%
Input Impedance (100–500 MHz)	100 ohm +/- (13+15Log[F/100])%	100 ohm +/- (13+15Log[F/100])%	100 ohm +/- (13+15Log[F/100])%

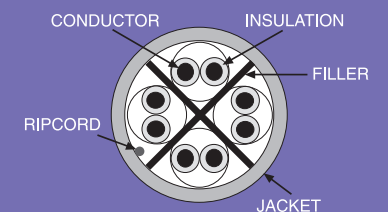
TEMPERATURE RATING

	CMP	CMR
OPERATION	-20°C to +60°C	-20°C to +75°C
INSTALLATION	0°C to +50°C	0°C to +50°C



AT A GLANCE

- ▶ Tested to 550 MHz
- ▶ 1000BASE-T capable
- ▶ Cable balance reduces effects of noise



LANMARK™ -6

UTP/4-PAIR
CATEGORY 6



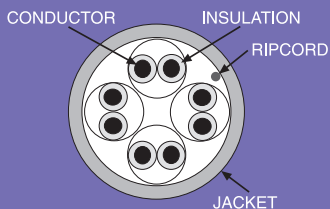
TEMPERATURE RATING

	CMP	CMR
OPERATION	-20°C to +60°C	-20°C to +75°C
INSTALLATION	0°C to +50°C	0°C to +50°C



AT A GLANCE

- ▶ Guaranteed to 250 MHz
- ▶ Cost-effective Category 6 solution
- ▶ No center spline



Berk-Tek's **LANMARK™-6** features a reduced diameter compared to other Category 6 UTP cables, and delivers 2 dB of headroom on the important characteristics of NEXT, PSNEXT, ACR, and PSACR. This is an ANSI/TIA/EIA Category 6 verified cable, constructed without a center spline for easy installation and termination. LANmark-6 is capable of transmitting applications such as 1000BASE-T. It is ideal for network applications that extend to 250 MHz. LANmark-6 is available in both CMP and CMR and conforms to ANSI/TIA/EIA 568-C.2 and ISO/IEC 11801 2nd Edition Class E Category 6 requirements.

FEATURES

- ▶ Inexpensive compact design with no center spline and an OD of 0.192 inches
- ▶ Meets the requirements of ANSI/TIA/EIA-568-C.2
- ▶ Usable bandwidth up to 250 MHz
- ▶ Delivered in compact, strong, easy to identify boxes

BENEFITS

- ▶ Simplified installation
- ▶ Cost-effective, entry-level Category 6 solution
- ▶ Superior box design allows cable to be pulled easily from the box with minimum kinking
- ▶ Compact box design takes up less shelf space
- ▶ Characterized to 500 MHz, 250 MHz greater than the standard

CONSTRUCTION

Bare copper wire insulated with polyethylene. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit, jacketed with flame-retardant PVC.

FLAME RATING

Non-Plenum—UL 1666, CMR, IEC 332-1
Plenum—NFPA 262, CMP

UL Listed

STANDARDS

North American	ANSI/TIA/EIA-568-C.2 UL 444 and C22.2 No. 214-02
International	ISO/IEC 11801- 2nd Edition Category 6 EU Directive 2002/95/EC (RoHS)

APPLICATIONS

Berk-Tek's LANmark-6 UTP cable is intended for high-speed data applications including:

IEEE 802.3	1000BASE-T	1 Gb/s
TIA/EIA-854	1000BASE-TX	1 Gb/s
ATM	155 Mb/s	155 Mb/s
IEEE 802.3	100BASE-TX	100 Mb/s
CDDI		100 Mb/s
IEEE 802.3	10BASE-T	10 Mb/s

PART NUMBERS	CMP	CMR
Gray 1000 ft. Tek Pak Box	10132983	10136338
White 1000 ft. Tek Pak Box	10136230	10136340
Blue 1000 ft. Tek Pak Box	10136226	10136339
Yellow 1000 ft. Tek Pak Box	10136749	10136753
Green 1000 ft. Tek Pak Box	10136748	10136752

TECHNICAL DATA — PHYSICAL	CMP	CMR
Conductor	23 AWG bare copper	23 AWG bare copper
Conductor Diameter	0.023 in.	0.022 in.
Insulated Conductor Diameter	0.041 in.	0.039 in.
Cable Diameter	0.224 in.	0.192 in.
Cable Weight	29 lb./kft.	23 lb./kft.
Min. Bend Radius	1.0 in.	1.0 in.
TECHNICAL DATA — ELECTRICAL	CMP	CMR
Velocity of Propagation	72% nom.	69% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.
Input Impedance (1–100 MHz)	100 ohm +/- 13%	100 ohm +/- 13%
Input Impedance (100–500 MHz)	100 ohm +/- (13+15Log[F/100])%	100 ohm +/- (13+15Log[F/100])%

Berk-Tek's **LANMARK™-6 OSP** (Outside Plant) Standard Category 6 UTP cables are designed for outside applications, either aerial or buried in conduit or duct, where building-to-building interconnections must be made.

LANMARK™-6 OSP

UTP/4-PAIR

CATEGORY 6 OSP

FEATURES

- ▶ Meets the requirements of ANSI/TIA/EIA-568-C.2
- ▶ Usable bandwidth up to 250 MHz
- ▶ Fully water blocked

BENEFITS

- ▶ Can be used to interconnect buildings or can be run beneath a slab in duct or conduit
- ▶ Simplifies structured cabling solution preserving long-term network investment
- ▶ Meets NEC requirement for cable in wet locations

CONSTRUCTION

Bare copper wire insulated with polyethylene. Two insulated conductors twisted together to form a pair and four such pairs cabled together around a cross-filler to form the basic unit. This basic unit is injected with a water-resistant flooding compound and jacketed with UV resistant polyethylene.

STANDARDS

- North American ANSI/TIA/EIA-568-C.2
ANSI/ICEA S-90-661
- International ISO/IEC 11801
EU Directive
2002/95/EC (RoHS)

APPLICATIONS

Berk-Tek's LANmark-6 OSP UTP cable is intended for high-speed data applications up to 1000 MHz including:

IEEE 802.3	1000BASE-T	1 Gb/s
TIA/EIA-854	1000BASE-TX	1 Gb/s
ATM	155 Mb/s	155 Mb/s
IEEE 802.3	100BASE-TX	100 Mb/s
CDDI		100 Mb/s
IEEE 802.3	10BASE-T	10 Mb/s

PART NUMBERS	OSP
Black 1000 ft. Reel	10139885

TECHNICAL DATA — PHYSICAL	OSP
Conductor	24 AWG solid bare copper
Conductor Diameter	0.021 in.
Insulated Conductor Diameter	0.042 in.
Cable Diameter	0.250 in.
Cable Weight	28 lb./kft.
Cable Jacket	Weather resistant polyethylene
Min. Bend Radius	1.0 in.
TECHNICAL DATA — ELECTRICAL	OSP
Velocity of Propagation	62% nom.
Time Delay Skew	45 nsec/100 m max.
Input Impedance (1-100 MHz)	100 ohm +/- 15 ohm
Input Impedance (100-200 MHz)	100 ohm +/- 20 ohm
Input Impedance (200-250 MHz)	100 ohm +/- 25 ohm



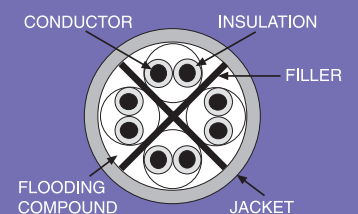
TEMPERATURE RATING

	OSP
OPERATION	-40°C to +70°C
INSTALLATION	0°C to +60°C



AT A GLANCE

- ▶ 0-250 MHz
- ▶ Supports 1000BASE-TX
- ▶ Outdoor and wet environments
- ▶ Specified with a 5% allowance on propagation delay



LANMARK-350™

UTP/4-PAIR

PREMIUM CATEGORY 5e



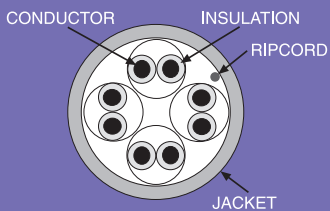
TEMPERATURE RATING

	CMP	CMR
OPERATION	-20°C to +60°C	-20°C to +75°C
INSTALLATION	0°C to +50°C	0°C to +50°C



AT A GLANCE

- ▶ Tested to 450 MHz
- ▶ Ideal for 100BASE-TX
- ▶ Headroom above Category 5e



Berk-Tek's LANMARK-350™ Premium Category 5e UTP cables are ideally suited to support 100BASE-TX Ethernet. Tested up to 450 MHz, the guaranteed performance of this cable far exceeds the ANSI/TIA/EIA-568-C.2 and ISO/IEC 11801 Category 5e horizontal cable requirements for PSNEXT, attenuation, structural return loss, attenuation-to-crosstalk ratio (ACR) and impedance.

FEATURES

- ▶ Small, round design
- ▶ ETL Verified to TIA/EIA-568-C.2 and ISO/IEC 11801

BENEFITS

- ▶ Reliably supports 100BASE-TX Ethernet
- ▶ Reduced installation costs and maintenance
- ▶ Lower bit error rates, increases network efficiency and uptime
- ▶ Characterized to 450 MHz, 350 MHz greater than standard

CONSTRUCTION

Bare copper wire insulated with polyethylene (non-plenum) or FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit jacketed with flame-retardant PVC.

FLAME RATING

Non-Plenum—UL 1666, CMR, IEC 332-1
 Plenum—NFPA 262, CMP
 Patch—UL 1685, CM, IEC 332-1

UL Listed (plenum and patch)
 ETL Listed (non-plenum)

STANDARDS

North American ANSI/TIA/EIA-568-C.2
 UL 444 and C22.2
 No. 214-02

International ISO/IEC 11801-
 2nd Edition Category 5
 EU Directive
 2002/95/EC (RoHS)

APPLICATIONS

Berk-Tek's LANmark-350 Premium Category 5e UTP cable is intended for high-speed data applications up to 350 MHz including:

IEEE 802.3	100BASE-T	1 Gb/s
ATM	155 Mb/s	155 Mb/s
IEEE 802.3	100BASE-TX	100 Mb/s
CDDI		100 Mb/s
IEEE 802.3	10BASE-T	10 Mb/s

PART NUMBERS	CMP	CMR	PATCH*
Gray 1000 ft. Tek Pak Box	10032079	10032447	10032649
White 1000 ft. Tek Pak Box	10032072	10032434	10032643
Blue 1000 ft. Tek Pak Box	10032065	10032426	10032639
Yellow 1000 ft. Tek Pak Box	10032060	10032419	10032637
Green 1000 ft. Tek Pak Box	10032086	10032428	10032647

*Reels only

TECHNICAL DATA — PHYSICAL	CMP	CMR	PATCH
Conductor	24 AWG solid bare copper	24 AWG solid bare copper	24 AWG tinned stranded copper
Conductor Diameter	0.020 in.	0.020 in.	0.024 in.
Insulated Conductor Diameter	0.035 in.	0.036 in.	0.040 in.
Cable Diameter	0.165 in.	0.187 in.	0.215 in.
Cable Weight	21 lb./kft.	20 lb./kft.	23 lb./kft.
Min. Bend Radius	1.0 in.	1.0 in.	1.0 in.
TECHNICAL DATA — ELECTRICAL	CMP	CMR	PATCH
Velocity of Propagation	73% nom.	70% nom.	70% nom.
Time Delay Skew	25 nsec/100 m max.	25 nsec/100 m max.	25 nsec/100 m max.
Input Impedance (1–100 MHz)	100 ohm +/- 14%	100 ohm +/- 14%	100 ohm +/- 14%
Input Impedance (100–350 MHz)	100 ohm +/- (14+15Log[F/100])	100 ohm +/- (14+15Log[F/100])	100 ohm +/- (14+15Log[F/100])

Berk-Tek's **HYPER PLUS 5e** Standard Category 5e UTP cables are designed for horizontal network and voice applications in a structured cabling network to connect between the user outlet and horizontal cross-connect.

HYPER PLUS 5e

UTP/4-PAIR
CATEGORY 5e

FEATURES

- ▶ Supports most data and voice applications
- ▶ ETL Verified to TIA/EIA-568-C.2

BENEFITS

- ▶ Universally accepted design for global commercial network installations
- ▶ Simplified structured cabling solution preserves long-term network investment
- ▶ Characterized to 350 MHz, 250 MHz greater than standard

CONSTRUCTION

Bare copper wire insulated with thermoplastic. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit, jacketed with flame-retardant PVC.

FLAME RATING

Non-Plenum—UL 1666, CMR
Plenum—NFPA 262, CMP
Patch—UL 1685, CM

UL Listed (plenum and patch)
ETL Listed (non-plenum)

STANDARDS

North American ANSI/TIA/EIA-568-C.2
UL 444 and C22.2
No. 214-02

International ISO/IEC 11801-
2nd Edition Category 5
EU Directive
2002/95/EC (RoHS)

APPLICATIONS

Berk-Tek's Hyper Plus 5e Standard Category 5e UTP cable is intended for high-speed data applications up to 100 MHz including:

IEEE 802.3	1000BASE-T	1 Gb/s
ATM	155 Mb/s	155 Mb/s
IEEE 802.3	100BASE-TX	100 Mb/s
CDDI		100 Mb/s
IEEE 802.3	10BASE-T	10 Mb/s

PART NUMBERS	CMP	CMR	PATCH*
Gray 1000 ft. Tek Pak Box	10032207	10032510	10032718
White 1000 ft. Tek Pak Box	10032223	10032535	10032716
Blue 1000 ft. Tek Pak Box	10032227	10032528	10032713
Yellow 1000 ft. Tek Pak Box	10032235	10032531	10032711
Green 1000 ft. Tek Pak Box	10032232	10032539	10032709

*Reels only

TECHNICAL DATA — PHYSICAL	CMP	CMR	PATCH
Conductor	24 AWG solid bare copper	24 AWG solid bare copper	24 AWG tinned stranded copper
Conductor Diameter	0.020 in.	0.020 in.	0.024 in.
Insulated Conductor Diameter	0.036 in.	0.035 in.	0.040 in.
Cable Diameter	0.202 in.	0.191 in.	0.215 in.
Cable Weight	22 lb./kft.	20 lb./kft.	23 lb./kft.
Min. Bend Radius	1.0 in.	1.0 in.	1.0 in.
TECHNICAL DATA — ELECTRICAL	CMP	CMR	PATCH
Velocity of Propagation	72% nom.	72% nom.	70% nom.
Time Delay Skew	45 nsec/100 m max.	25 nsec/100 m max.	25 nsec/100 m max.
Input Impedance (1-100 MHz)	100 ohm +/- 15%	100 ohm +/- 15%	100 ohm +/- 15%

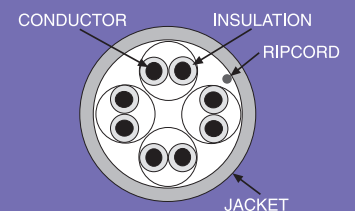
TEMPERATURE RATING

	CMP	CMR
OPERATION	-20°C to +60°C	-20°C to +75°C
INSTALLATION	0°C to +50°C	0°C to +50°C



AT A GLANCE

- ▶ Tested to 350 MHz
- ▶ Cost effective choice for voice/data



HYPER PLUS 5e OSP

UTP/4-PAIR
CATEGORY 5e OSP



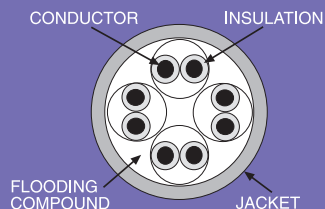
TEMPERATURE RATING

	OSP
OPERATION	-20°C to +60°C
INSTALLATION	-20°C to +60°C



AT A GLANCE

- ▶ 0-100 MHz
- ▶ Supports 100BASE-TX
- ▶ Outdoor and wet environments



Berk-Tek's **HYPER PLUS 5e OSP** (Outside Plant) Standard Category 5e UTP cables are designed for outside applications, either aerial or buried in conduit or duct, where building-to-building interconnections must be made.

FEATURES

- ▶ Supports most data and voice applications
- ▶ Meets ANSI/ICEA 5-56-434 Standard for Polyolefin Insulated Communications Cables for Outdoor Use
- ▶ ETL Verified to TIA/EIA-568-C.2
- ▶ Fully water blocked

BENEFITS

- ▶ Can be used to interconnect buildings or can be run beneath a slab in duct or conduit
- ▶ Simplified structured cabling solution preserves long-term network investment
- ▶ Meets NEC requirement for cable in wet locations

CONSTRUCTION

Bare copper wire insulated with polyethylene. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit which is injected with a water resistant flooding compound and jacketed with UV resistant polyethylene.

STANDARDS

North American	ANSI/TIA/EIA-568-C.2 ANSI/ICEA 5-56-434
International	ISO/IEC 11801- 2nd Edition Category 5 EU Directive 2002/95/EC (RoHS)

APPLICATIONS

Berk-Tek's Hyper Plus 5e OSP UTP cable is intended for high-speed data applications up to 100 MHz including:

IEEE 802.3 ATM	1000BASE-T	1 Gb/s
IEEE 802.3 CDDI	155 Mb/s	155 Mb/s
IEEE 802.3	100BASE-TX	100 Mb/s
IEEE 802.3	10BASE-T	10 Mb/s

PART NUMBERS	OSP
Black 1000 ft. Reel	10071496

TECHNICAL DATA — PHYSICAL	OSP
Conductor	24 AWG solid bare copper
Conductor Diameter	0.020 in.
Insulated Conductor Diameter	0.038 in.
Cable Diameter	0.207 in.
Cable Weight	20 lb./kft.
Cable Jacket	Weather resistant polyethylene
Min. Bend Radius	1.00 in.
TECHNICAL DATA — ELECTRICAL	OSP
Velocity of Propagation	72% nom.
Time Delay Skew	25 nsec/100 m max.
Input Impedance	100 ohm +/- 15%

Berk-Tek's **CATEGORY 3 UTP** cables are designed for voice applications. This Category 3, 4-pair UTP cable is tested and guaranteed to meet ANSI/TIA/EIA-568-C.2 horizontal cabling requirements.

FEATURES

- ▶ Standard flame-retardant PVC or low-smoke zero-halogen jacket construction
- ▶ Supports 10BASE-T, Voice, 100VG-AnyLAN

BENEFITS

- ▶ Universally accepted design for global commercial network installations
- ▶ Simplified structured cabling solution

CONSTRUCTION

Bare copper wire insulated with thermoplastic. Two insulated conductors twisted together to form a pair and four such pairs are cabled and jacketed with flame-retardant PVC.

FLAME RATING

Non-plenum—UL 1666, CMR
 Plenum—NFPA 262, CMP
 UL Listed (plenum)
 EL Listed (non-plenum)

STANDARDS

North American ANSI/TIA/EIA-568-C.2
 UL 444 and C22.2
 No. 214-02

APPLICATIONS

Berk-Tek's LAN-Grade Category 3 UTP cable is intended for voice and data applications up to 16 MHz including:

Ethernet
 10BASE-T
 100BASE-TX
 100BASE-VG AnyLAN
 Voice

PART NUMBERS	CMP	CMR
Gray 1000 ft. Tek Pak Box	10032040	10032402
White 1000 ft. Tek Pak Box	10032047	10034564
Blue 1000 ft. Tek Pak Box	10032031	10032335
Yellow 1000 ft. Tek Pak Box	10032051	10033336

TECHNICAL DATA — PHYSICAL	CMP	CMR
Conductor	24 AWG solid bare copper	24 AWG solid bare copper
Conductor Diameter	0.020 in.	0.020 in.
Insulated Conductor Diameter	0.035 in.	0.035 in.
Cable Diameter	0.180 in.	0.187 in.
Cable Weight	19 lb./kft.	19 lb./kft.
Min. Bend Radius	1.0 in.	1.0 in.
TECHNICAL DATA — ELECTRICAL	CMP	CMR
Velocity of Propagation	57% nom.	70% nom.
Input Impedance	100 ohm +/- 15%	100 ohm +/- 15%
Time Delay Skew	25 nsec/100 m	25 nsec/100 m

HORIZONTAL VOICE CABLE

UTP/4-PAIR
 CATEGORY 3



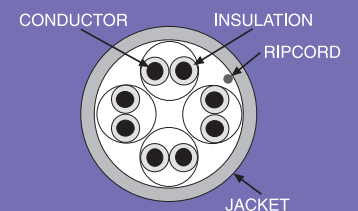
TEMPERATURE RATING

	CMP	CMR
OPERATION	-20°C to +60°C	-20°C to +75°C
INSTALLATION	0°C to +50°C	0°C to +50°C



AT A GLANCE

- ▶ 0-16 MHz
- ▶ Supports voice applications



POWER SUM

UTP/25-PAIR
CATEGORY 5e



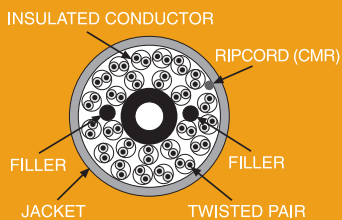
TEMPERATURE RATING

	CMP	CMR
OPERATION	-50°C to +200°C	-20°C to +75°C
INSTALLATION	-50°C to +200°C	0°C to +50°C



AT A GLANCE

- ▶ Tested to 250 MHz
- ▶ Ideal for data center interconnects
- ▶ Zone cabling
- ▶ Small, flexible design



Berk-Tek's **POWER SUM** CATEGORY 5e 25-pair UTP cable is designed for use in data and voice backbone applications and is ideal for Category 5e zone cabling applications and interconnect cable assemblies.

FEATURES

- ▶ ETL Verified ANSI/TIA/EIA-568-C.2 Backbone Cable Power Sum Performance
- ▶ Supports 10BASE-T, 100BASE-T, 1000BASE-T, TP-PMD, Voice, Multimedia, 155 Mb/s ATM
- ▶ Small-diameter and flexible construction with stable cable geometry
- ▶ Ideally suited for backbone, cross-connect and pre-connectorized assemblies

BENEFITS

- ▶ Supports current networking protocols
- ▶ Simplified structured cabling solution preserving long-term network investment
- ▶ High-performance multi-pair cable for today's most common network interconnections
- ▶ Characterized to 250 MHz, 150 MHz greater than the standard

CONSTRUCTION

Bare copper wire insulated with polyethylene (non-plenum) or FEP (plenum). Two layer core construction jacketed in flame-retardant PVC (non-plenum) or fluoropolymer (plenum).

FLAME RATING

Non-plenum—UL 1666, CMR
Plenum—NFPA 262, CMP

ETL Listed

STANDARDS

North American ANSI/TIA/EIA-568-C.2
UL 444 and C22.2
No. 214-02

International EU Directive
2002/95/EC (RoHS)

APPLICATIONS

Berk-Tek's 25-pair Power Sum Category 5e cable is intended for voice and data applications including:

ATM	155 Mb/s	155 Mb/s
IEEE 802.3	100BASE-TX	100 Mb/s
CDDI		100 Mb/s
IEEE 802.3	10BASE-T	10 Mb/s

PART NUMBERS	CMP	CMR
Gray 1000 ft. Reel	10059632	10061456
Yellow 1000 ft. Reel	10119643	—
Blue 1000 ft. Reel	10133971	10092804
White 1000 ft. Reel	10089521	10080224

TECHNICAL DATA — PHYSICAL	CMP	CMR
Conductor	24 AWG solid bare copper	24 AWG solid bare copper
Conductor Diameter	0.021 in.	0.021 in.
Insulated Conductor Diameter	0.037 in.	0.038 in.
Cable Diameter	0.455 in.	0.500 in.
Cable Weight	142 lb./kft.	132 lb./kft.
Min. Bend Radius	4.5 in.	5.0 in.
TECHNICAL DATA — ELECTRICAL	CMP	CMR
Velocity of Propagation	72% nom.	72% nom.
Input Impedance	100 ohm +/- 15%	100 ohm +/- 15%
Time Delay Skew	45 nsec/100 m	45 nsec/100 m

Berk-Tek's **POWER SUM MULTI-PAIR CATEGORY 3** cables are designed for use in voice applications. These cables are used to support building backbone service. They also can be used for interconnecting satellite wiring closets.

FEATURES

- ▶ UL Verified ANSI/TIA/EIA-568-C.2
- ▶ Supports 10BASE-T and voice
- ▶ Ideally suited for backbone, cross-connect and pre-connectorized assemblies

BENEFITS

- ▶ Assurance that every link will meet the most demanding transmission requirements
- ▶ Simplified structured cabling solution preserving long-term network investment

CONSTRUCTION

Bare copper wire insulated with thermoplastic. Three layer core construction jacketed in flame-retardant PVC.

FLAME RATING

Non-plenum—UL 1666, CMR, IEC 332-1
Plenum—NFPA 262, CMP

ETL Listed

STANDARDS

North American ANSI/TIA/EIA-568-C.2
UL 444 and C22.2
No. 214-02

International ISO/IEC 11801
EU Directive
2002/95/EC (RoHS)

APPLICATIONS

Berk-Tek's Multi-Pair Category 3 UTP Power Sum Backbone cables are intended for data and voice applications including:

Ethernet 10BASE-T
Voice

PART NUMBERS	CMP	CMR
Gray 1000 ft. Reel (25-pr)	10032111	10032396
Blue 1000 ft. Reel (25-pr)	10032036	10032333
Gray 1000 ft. Reel (50-pr)	10032112	10032471
Gray 1000 ft. Reel (100-pr)	10032113	10032472
Gray 1000 ft. Reel (200-pr)	10032123	10032493
Gray 1000 ft. Reel (300-pr)	10032124	10032494

TECHNICAL DATA — PHYSICAL		CMP					CMR				
Conductor		24 AWG solid bare copper					24 AWG solid bare copper				
Conductor Diameter		0.020 in.					0.020 in.				
Insulated Conductor Diameter		0.037 in.					0.037 in.				
Cable Diameter (inches)		25-pr	50-pr	100-pr	200-pr	300-pr	25-pr	50-pr	100-pr	200-pr	300-pr
		0.400	0.496	0.651	1.012	1.270	0.380	0.525	0.774	1.100	1.300
Cable Weight (lb./kft.)		25-pr	50-pr	100-pr	200-pr	300-pr	25-pr	50-pr	100-pr	200-pr	300-pr
		108	198	385	760	1116	97	190	390	745	1100
TECHNICAL DATA — ELECTRICAL		CMP					CMR				
Velocity of Propagation (% nom.)		25-pr	50-pr	100-pr	200-pr	300-pr	25-pr	50-pr	100-pr	200-pr	300-pr
		58	58	58	58	58	70	70	70	58	58
Input Impedance		100 ohm					100 ohm				

POWER SUM

UTP/25, 50, 100, 200, 300 PAIR
MULTI-PAIR CATEGORY 3



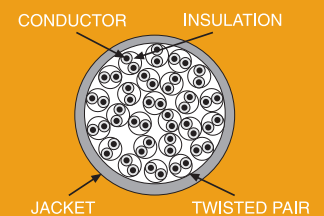
TEMPERATURE RATING

OPERATION	-20°C to +60°C
INSTALLATION	0°C to +50°C



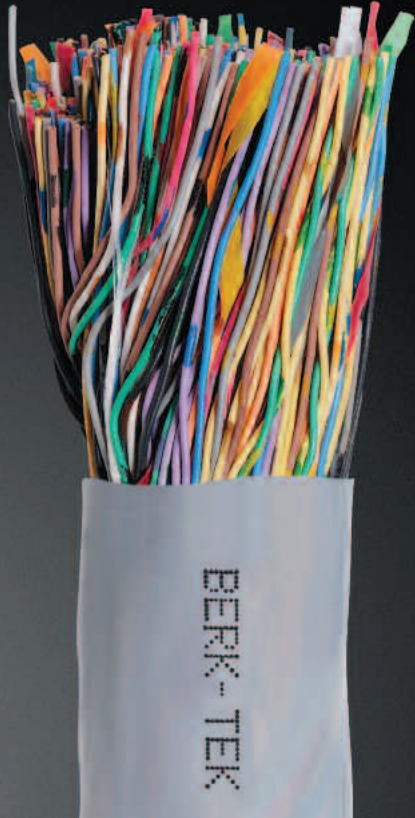
AT A GLANCE

- ▶ 0-16 MHz
- ▶ Ideal interconnect cable
- ▶ Voice backbone
- ▶ Cost effective design



POWER SUM

UTP/400 PAIR
MULTI-PAIR TYPE III



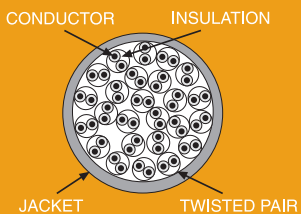
TEMPERATURE RATING

OPERATION	-20°C to +60°C
INSTALLATION	0°C to +50°C



AT A GLANCE

- ▶ 0-16 MHz
- ▶ Ideal interconnect cable
- ▶ Voice backbone
- ▶ Cost effective design



Berk-Tek's **POWER SUM** UTP/400 PAIR cables are designed for use in voice applications. These cables are used to support building backbone service. They also can be used for interconnecting satellite wiring closets.

FEATURES

- ▶ Supports voice and low frequency applications
- ▶ Ideally suited for backbone and cross-connect applications

BENEFITS

- ▶ Reduced cable routing time allowing for lower cost of installation and testing
- ▶ Simplified structured cabling solution preserving long-term network investment
- ▶ Assurance that every link will meet the most demanding transmission requirements

CONSTRUCTION

Bare copper wire insulated with thermoplastic. Three layer core construction jacketed with PVDF fluoropolymer (plenum), or PVC (riser).

FLAME RATING

Non-plenum—UL 1666, CMR, IEC 332-1
UL Listed

STANDARDS

North American UL 444 and C22.2
 No. 214-02
International EU Directive
 2002/95/EC (RoHS)

APPLICATIONS

Berk-Tek's Multi-Pair Type III Power Sum UTP cables are intended for voice applications.

PART NUMBERS	CMR
Gray 1000 ft. Reel (400-pr)	10034978

TECHNICAL DATA — PHYSICAL	CMR
Conductor	24 AWG solid bare copper
Conductor Diameter	0.020 in.
Insulated Conductor Diameter	0.033 in.
Cable Diameter	1.500 in.
Cable Weight	1130 lb./kft.
TECHNICAL DATA — ELECTRICAL	CMR
Velocity of Propagation	58% nom.
Input Impedance	100 ohm

Berk-Tek's **LANmark-10G FTP** is ideal for applications that require the most advanced cable performance and the additional signal isolation advantages of an FTP design. Completely characterized using power sum crosstalk, LANmark-10G FTP Cat 6a introduces new electrical performance parameters to an FTP cable, addressing the needs of full duplex operation over four pairs.

LANMARK™ -10G FTP

F/UTP/4-PAIR
CATEGORY 6a

FEATURES

- ▶ ETL Verified to TIA/EIA-568-C.2
- ▶ Outstanding signal isolation
- ▶ Resistant to alien crosstalk

BENEFITS

- ▶ Increased signal isolation prevents contaminant noise from entering cabling system
- ▶ Completely compliant with IEEE requirements
- ▶ Lower bit errors resulting in increased network performance

CONSTRUCTION

23 AWG, bare copper wire insulated with FEP. Two insulated conductors twisted together with varying layers to form a pair and four pairs laid up to form the basic unit. The cable is shielded with an overall polyester/aluminum foil with stranded tinned copper drain wire and jacketed in flame-retardant PVC.

FLAME RATING

Plenum—NFPA 262

STANDARDS

North American ANSI/TIA/EIA-568-C.2
UL 444 and C22.2
No. 214-02

International IEC 61156-5
ED2.0_46C844CDV
EU Directive
2002/95/EC (RoHS)

APPLICATIONS

Berk-Tek's LANmark-10G FTP cable is intended for high-speed data applications up to 500 MHz including:

IEEE 802.3	10GBASE-T	10 Gb/s
IEEE 802.3	1000BASE-T	1 Gb/s
TIA/EIA-854	1000BASE-TX	1 Gb/s
ATM	155 Mb/s	155 Mb/s
IEEE 802.3	100BASE-TX	100 Mb/s
CDDI		100 Mb/s

PART NUMBERS	CMP	CMR
Gray 1000 ft. Reel	10167487	10189798
White 1000 ft. Reel	10167485	10189801
Blue 1000 ft. Reel	10143424	10189567
Yellow 1000 ft. Reel	10167488	10189803

TECHNICAL DATA — PHYSICAL	CMP	CMR
Conductor	23 AWG solid bare copper	23 AWG solid bare copper
Conductor Diameter	0.023 in.	0.022
Insulated Conductor Diameter	0.046 in.	0.044
Cable Diameter	0.280 in.	0.300
Cable Weight	40 lb./kft.	38 lb./kft.
Min. Bend Radius	1.12 in.	1.20 in.
TECHNICAL DATA — ELECTRICAL	CMP	CMR
Velocity of Propagation	72% nom.	72% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.
Input Impedance	100 ± 13% 0.772-100 MHz	100 ± [13+15log (F/100)] 100-350 MHz



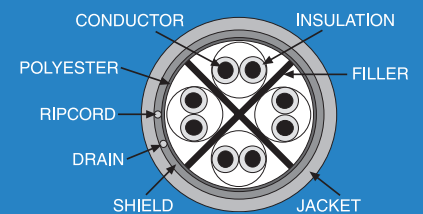
TEMPERATURE RATING

	CMP
OPERATION	-20°C to +60°C
INSTALLATION	0°C to +50°C



AT A GLANCE

- ▶ One overall foil shield
- ▶ Guaranteed to CAT 6a
- ▶ Superior alien crosstalk performance



LANMARK™ -6 FTP

F/UTP/4-PAIR

CATEGORY 6



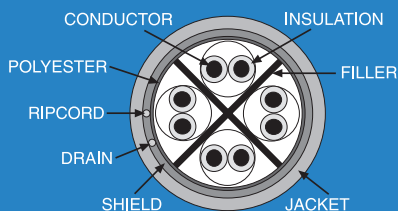
TEMPERATURE RATING

	CMP	CMR
OPERATION	-20°C to +60°C	-20°C to +60°C
INSTALLATION	0°C to +50°C	0°C to +50°C



AT A GLANCE

- ▶ 0-250 MHz
- ▶ 10GBASE-T capable
- ▶ Excellent signal isolation



Berk-Tek's **LANMARK™-6 FTP** is the first independently verified Category 6 F/UTP cable. It is ideal for applications that require the most advanced cable performance and the additional signal isolation advantages of an F/UTP design. LANmark-6 FTP is also an excellent choice to support 10 Gigabit Ethernet. Berk-Tek LANmark-6 FTP is the first F/UTP cable to set requirements for cable balance.

FEATURES

- ▶ ETL Verified to TIA/EIA-568-C.2
- ▶ Outstanding signal isolation
- ▶ Can be used with RJ-45 style F/UTP connectivity

BENEFITS

- ▶ Increased signal isolation prevents contaminant noise from entering cabling system
- ▶ Ideal for supporting 10 Gigabit Ethernet
- ▶ Lower bit errors resulting in increased network performance

CONSTRUCTION

Bare copper wire insulated with foam FEP (plenum) or foam polyethylene (non-plenum). Two insulated conductors twisted together to form a pair and four pairs laid up to form the basic unit. The cable is shielded with an overall polyester/aluminum foil with stranded tinned copper drain wire and jacketed in flame-retardant PVC.

FLAME RATING

Plenum—NFPA 262, CMP
 Non-plenum—UL 1666, CMR
 Patch—UL 1581, CM

UL Listed (plenum & non-plenum)
 ETL Listed (plenum)

STANDARDS

North American ANSI/TIA/EIA-568-C.2
 UL 444 and C22.2
 No. 214-02

International ISO/IEC 11801-
 2nd Edition
 EU Directive
 2002/95/EC (RoHS)

APPLICATIONS

LANmark-6 FTP cable is intended for high-speed data applications including:

IEEE 802.3	10GBASE-T	10 Gb/s
IEEE 802.3	1000BASE-T	1 Gb/s
TIA/EIA-854	1000BASE-TX	1 Gb/s
ATM	155 Mb/s	155 Mb/s
IEEE 802.3	100BASE-TX	100 Mb/s
CDDI		100 Mb/s
IEEE 802.3	10BASE-T	10 Mb/s

PART NUMBERS	CMP	CMR	PATCH
Gray 1000 ft. Reel	10057903	10070439	10096091
Yellow 1000 ft. Reel	10062608	10090687	—
Red 1000 ft. Reel	10063671	10074211	—
Black 1000 ft. Reel	10063672	10074212	—

TECHNICAL DATA — PHYSICAL	CMP	CMR	PATCH
Conductor	23 AWG solid bare copper	23 AWG solid bare copper	26 AWG tinned stranded copper
Conductor Diameter	0.022 in.	0.022 in.	0.019 in.
Insulated Conductor Diameter	0.045 in.	0.045 in.	0.035 in.
Cable Diameter	0.285 in.	0.280 in.	0.227 in.
Cable Weight	41.7 lb./kft.	36 lb./kft.	23 lb./kft.
Min. Bend Radius	1.2 in.	1.2 in.	1.0 in.
TECHNICAL DATA — ELECTRICAL	CMP	CMR	PATCH
Velocity of Propagation	71% nom.	68% nom.	67% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.	45 nsec/100 m max.
Input Impedance	100 ohm +/- 15%	100 ohm +/- 15%	100 ohm +/- 15%

With independently verified performance that meets the TIA/EIA Category 5e standard, Berk-Tek's **LANMARK™-5e FTP** provides the additional signal isolation advantages of an F/UTP design and is ideal for network installations that may be subjected to higher than normal external electromagnetic noise sources.

LANMARK™-5e FTP

F/UTP/4-PAIR
CATEGORY 5e

FEATURES

- ▶ Independently verified to TIA/EIA Category 5e
- ▶ Supports 10BASE-T, 100BASE-T, 1000BASE-T
- ▶ Reduces signal emissions for secure transmissions

BENEFITS

- ▶ Reduced cable interference problems in areas of high EMI
- ▶ Extends performance limits for network applications thus increasing cabling lifetime
- ▶ Reduces signal emissions for secure transmissions

CONSTRUCTION

Bare copper wire insulated with foam polyethylene (non-plenum) or foam FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs laid up to form the basic unit. The cable is shielded with an overall polyester aluminum foil with stranded tinned copper drain wire and is jacketed with flame-retardant PVC.

FLAME RATING

Non-plenum—UL 1666, CMR
Plenum—NFPA 262, CMP
Patch—UL 1581, CM, IEC 332-1
UL Listed

STANDARDS

North American ANSI/TIA/EIA-568-C.2
UL 444 and C22.2
No. 214-02
International ISO/IEC 11801-2nd Edition
EU Directive
2002/95/EC (RoHS)

APPLICATIONS

LANmark-5e FTP cable is intended for high-speed data applications up to 100 MHz including:

IEEE 802.3	1000BASE-T	1 Gb/s
ATM	155 Mb/s	155 Mb/s
IEEE 802.3	100BASE-TX	100 Mb/s
CDDI		100 Mb/s
IEEE 802.3	10BASE-T	10 Mb/s

PART NUMBERS	CMP	CMR	PATCH
Gray 1000 ft. Reel	10032121	10043494	10035109
White 1000 ft. Reel	10047419	10047420	—
Blue 1000 ft. Reel	10034841	10051227	—
Red 1000 ft. Reel	10053566	10063684	—
Black 1000 ft. Reel	10061862	10068822	—

TECHNICAL DATA — PHYSICAL	CMP	CMR	PATCH
Conductor	24 AWG solid bare copper	24 AWG solid bare copper	26 AWG tinned stranded copper
Conductor Diameter	0.022 in.	0.021 in.	0.019 in.
Insulated Conductor Diameter	0.042 in.	0.042 in.	0.035 in.
Cable Diameter	0.235 in.	0.240 in.	0.197 in.
Cable Weight	31 lb./kft.	29 lb./kft.	20 lb./kft.
Min. Bend Radius	1.0 in.	1.0 in.	1.0 in.
TECHNICAL DATA — ELECTRICAL	CMP	CMR	PATCH
Velocity of Propagation	72% nom.	74% nom.	70% nom.
Time Delay Skew	45 nsec/100 m max.	45 nsec/100 m max.	45 nsec/100 m max.
Input Impedance	100 ohm +/- 15%	100 ohm +/- 15%	100 ohm +/- 15%

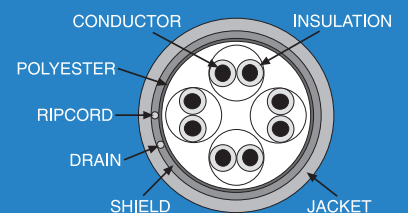
TEMPERATURE RATING

	CMP	CMR
OPERATION	-20°C to +60°C	-20°C to +60°C
INSTALLATION	0°C to +50°C	0°C to +50°C



AT A GLANCE

- ▶ 0-100 MHz
- ▶ 100BASE-TX capable
- ▶ Excellent signal isolation



T1-TELEPHONE EXCHANGE CABLE

PIMF
24 AWG



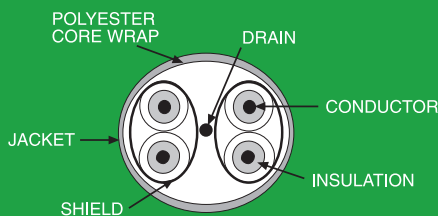
TEMPERATURE RATING

	CMP	CM
OPERATION	-20°C to +125°C	-20°C to +75°C
INSTALLATION	0°C to +125°C	0°C to +50°C



AT A GLANCE

- ▶ T1, DS-1



Berk-Tek's T1 cables have been specially designed for interconnection of T-Carrier equipment.

FEATURES

- ▶ Individually shielded pairs
- ▶ General purpose or plenum rated
- ▶ Available in constructions up to 4 pairs
- ▶ Compact size

BENEFITS

- ▶ Supports T1 interconnection applications
- ▶ Individual pair isolation allows for maximum protection from outside interference

CONSTRUCTION

Tinned copper wire with cellular polyethylene (non-plenum) or cellular FEP (plenum). 2 through 4 twisted pairs are individually shielded with an aluminum/polyester tape which is in contact with a tinned copper drain wire. The cable core is wrapped by polyester and jacketed with a flame-retardant PVC (non-plenum) or fluoropolymer (plenum) jacket.

FLAME RATING

Non-plenum—UL 1685, CM
Plenum—NFPA 262, CMP

UL Listed

STANDARDS

North American ANSI/TI/102-1987
UL 444 and C22.2
No. 214-02

International EU Directive
2002/95/EC (RoHS)

APPLICATIONS

T1
DS-1

PART NUMBERS	CM	CMP	CONDUCTOR AWG	NUMBER OF PAIRS
Gray 1000 ft. Reel	10032394	10032053	24	2
Gray 1000 ft. Reel	10032395	—	24	4

TECHNICAL DATA — PHYSICAL	
CONSTRUCTION CHARACTERISTICS	
Outer Sheath	FR-PVC, Fluoropolymer (CMP)
Color(s)	Gray
ELECTRICAL CHARACTERISTICS	
Conductor DC Resistance ohm/1000 ft. @ 20°C	—
Mutual Capacitance	12.5 pF/ft. @772 KHz
Characteristic Impedance	100 ± 10 ohm @ 772 KHz and 1.544 MHz
TRANSMISSION CHARACTERISTICS	
Attenuation, max. (dB/1000 ft.)	8.5 max. @ 1.544 MHz
Near End Crosstalk (dB/1000 ft.)	80.0 @ 1.544 MHz
Far End Crosstalk (dB/1000 ft.)	85.0 @ 1.544 MHz
USAGE CHARACTERISTICS	
Packaging	Reels only
Length	1,000 feet (305 meters)

TECHNICAL DATA — PHYSICAL	CM	CMP
Conductor	24 AWG solid tin copper	24 AWG solid tin copper
Conductor Diameter	0.020 in.	0.020 in.
Insulated Conductor Diameter	0.052 in.	0.050 in.
Cable Diameter (2 PR)	0.270 x 0.170 in.	0.200 in.
Cable Diameter (4 PR)	0.325 in.	—
Cable Weight (2 PR)	27 lb./kft.	19 lb./kft.
Cable Weight (4 PR)	40 lb./kft.	—

Berk-Tek **LOW SKEW** cable is a four-pair (non-category compliant) UTP cable, specifically designed for RGB video applications, such as digital signage. This cable offers a cost-effective alternative to RGB coax cables. In addition, it can support video transmissions to distances longer than traditional Ethernet, which is limited to 100 meters. This cable will not support Ethernet.

LOW SKEW

UTP/4-PAIR
NON-CATEGORY

FEATURES

- ▶ Plenum or riser rated
- ▶ Supports low skew transmission for video signals
- ▶ Easily terminated with RJ45 plugs, standard tools, techniques and connectors

BENEFITS

- ▶ No blurring of rapidly moving video images
- ▶ Supports high-quality RGB video transmission to extended distances
- ▶ More cost effective solution than coax-based video systems

CONSTRUCTION

24 AWG bare copper wire insulated with thermoplastic. Two insulated conductors twisted together to form a pair and four such pairs are cabled with a ripcord and jacketed with a flame-retardant PVC (non-plenum) or fluoropolymer (plenum) jacket.

FLAME RATING

Plenum—CMP
Riser—CMR
UL Listed

STANDARDS

North American UL 444 and C22.2 No. 214-02
International EU Directive 2002/95/EC (RoHS)

APPLICATIONS

Applications for the Berk-Tek Low Skew cable include digital signage and video monitoring.

PART NUMBERS	CMP	CMR
Blue 1000 ft. Reel	10189616	10189719

TECHNICAL DATA — PHYSICAL	CMP	CMR
Conductor	24 AWG solid bare copper	24 AWG solid bare copper
Conductor Diameter	0.02 in.	0.02 in.
Cable Diameter	0.186 in.	0.192 in.
Cable Weight	20 lb./kft.	18 lb./kft.
Min. Bend Radius	1 in.	1 in.
TECHNICAL DATA — ELECTRICAL	CMP	CMR
Velocity of Propagation	73% nom.	70.0% nom.
Time Delay Skew	2ns/100m max.	2ns/100m max.



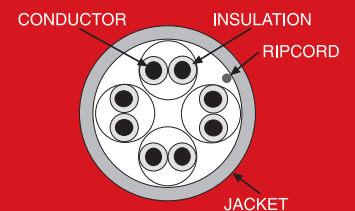
TEMPERATURE RATING

	CMP	CMR
OPERATION	-20°C to +60°C	-20°C to +75°C
INSTALLATION	0°C to +50°C	0°C to +50°C



AT A GLANCE

- ▶ Minimal skew for excellent image quality
- ▶ Compatible with standard connectivity
- ▶ More cost effective than coax



BERK-TEK OPTICAL FIBER CABLES:

Performance Excellence Through Continuous Improvement



Performing to ISO 9001 certification standards and the TL 9000 quality management system helps to drive continuous improvement, consistent quality and on-time delivery.

With a variety of quality programs ranging in scope from improved visual manufacturing processes to advanced Greenbelt Six Sigma training, the Berk-Tek Fuquay-Varina fiber manufacturing facility is focused on continuously improving the products we manufacture. Our state-of-the-art equipment and data acquisition tools enable us to leverage best practices, track trend data and bring higher quality products to market more quickly and more efficiently.

When you purchase a Berk-Tek fiber optic cable, you can be sure that it has passed rigorous quality testing. Complete optical testing is conducted at each step of the manufacturing process, enabling us to guarantee every product, every time.

The combination of manufacturing expertise and advanced research and development has given Berk-Tek the honor of many significant firsts, including:

- ▶ Adventum®, the first all-dry, loose tube, indoor/outdoor fiber optic cable
- ▶ Micro Data Center Plenum, the world's smallest stranded loose tube fiber optic cable construction
- ▶ Adventum Tight Buffer, combining the strengths of both loose tube and tight buffer fiber cable constructions
- ▶ Highest fiber count available in the industry, 432-fiber Adventum

PRODUCT HIGHLIGHTS

MICRO DATA CENTER PLENUM

For installations where space is at a premium, like data centers and storage area networks, Berk-Tek has created just the right cable, the Micro Data Center Plenum cable. The unique design has been granted a patent by the USPTO #7, 609, 926. This cable is up to 50% smaller than typical loose tube, premises distribution or ribbon cable designs of comparable strand counts. As important as its small size, is its rugged construction that allows for effective utilization of space without giving up the pulling strength needed for a trouble-free installation.

COMPOSITE SECURITY CABLE

With the convergence of CCTV, building automation systems and other security

applications onto the structured cabling system, there is a clear need for a cable that can power a camera while also providing the performance of optical fiber. The Berk-Tek Composite Security cable delivers both high bandwidth optical performance and power to cameras, access or monitoring devices at a distance up to 6000 feet.

ADVENTUM® TIGHT BUFFER

The unique design of the Adventum Tight Buffer cable combines the strengths of the Adventum Indoor/Outdoor cable with the convenience of tight-buffered fibers. The cable is fully water blocked with the Berk-Tek DryGel water-blocking system, which means no messy gels to clean. And the tight buffer fiber construction means quick, direct termination with no need for fan out kits. This is an

ideal cable for FTtx applications such as multi-dwelling or multi-tenant units, or it can be used for security applications.

ADVENTUM

Berk-Tek continues to improve and expand upon the success of the Adventum Indoor/Outdoor fiber optic cable. For certain strand counts we have been able to reduce both the outer diameter and the cable weight through the removal of unnecessary buffer tubes. There is now a side-by-side design for our 24-fiber cables that is more flexible than a traditional round design and allows for better conduit fill ratios. Finally, we continue to extend the range of available fiber counts, with Adventum plenum cable up to 432 fibers.





With the hassle-free installation and error-free performance of **Berk-Tek Pre-Terminated Fiber Cable Assemblies**, maximizing your project ROI has never been easier.

PRE-TERMINATED MULTI-FIBER CABLES AT A GLANCE

REDUCE TIME TO DEPLOY, IMPROVE PROJECT ROI

For projects of any variety, from the largest data center, to a typical office Local Area Network (LAN) or a campus-wide network, you don't have time to waste. You need materials on hand, on time, and in proper working order.

And that's where Berk-Tek Pre-Terminated Fiber Optic Cable Assemblies enter the picture.

We start with our full-line of superior fiber optic cables, add top-of-the-line connectors, construct assemblies to your exact specifications, and test every piece before it leaves our hands. Then they are shipped directly to your job site where they are ready for immediate installation. It really is that easy.

FEATURES

- ▶ Wide variety of cable and connector options available
- ▶ Full-range of optical fiber types, from GIGAlite-10XB Enhanced Multimode through standard 62.5 micron multimode and single-mode
- ▶ True custom designs, easily configured online
- ▶ Fully tested, labeled and documented
- ▶ Installation requires no consumables, termination tool kits or specialized termination training
- ▶ Factory installed pulling eyes available
- ▶ Armored cable assemblies available with integral bonding wires

BENEFITS

- ▶ Rapidly deployable with no cable preparation required
- ▶ Ready for installation on arrival
- ▶ Lower installation cost
- ▶ Lower cost of ownership
- ▶ No cable or connector scrap
- ▶ No termination errors
- ▶ Improved end-to-end attenuation, throughput and application migration with higher-performing factory terminated connectors
- ▶ Improved link loss budgets

APPLICATIONS

- ▶ Interbuilding and Intrabuilding backbones for LAN Premises and Campus applications
- ▶ Data center, Main and Horizontal cross connects, zone and equipment distribution area trunk cables for Storage Area Network (SAN) applications
- ▶ Extended Multimode distance guarantees for:
 - 100 Gb/s Ethernet, parallel assemblies
 - 40 Gb/s Ethernet, parallel assemblies
 - 10GBase-SR Ethernet LAN applications
 - 1000Base-LX Ethernet LAN applications
 - 1000Base-SX Ethernet LAN applications
 - 10 Gb/s Fibre Channel SAN applications
 - 4.25 Gb/s Fibre Channel SAN applications
 - 2.12 Gb/s Fibre Channel SAN applications
 - 1.06 Gb/s Fibre Channel SAN applications



Visit us online at www.berktek.com/teklab to easily configure your assembly, generate a part number and schematic, and request a quotation.

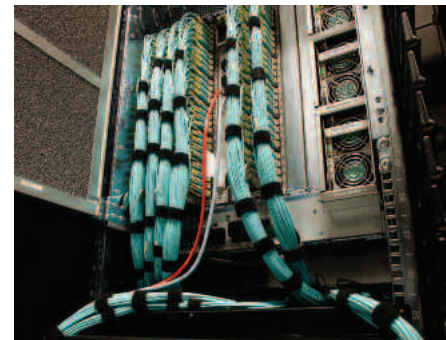
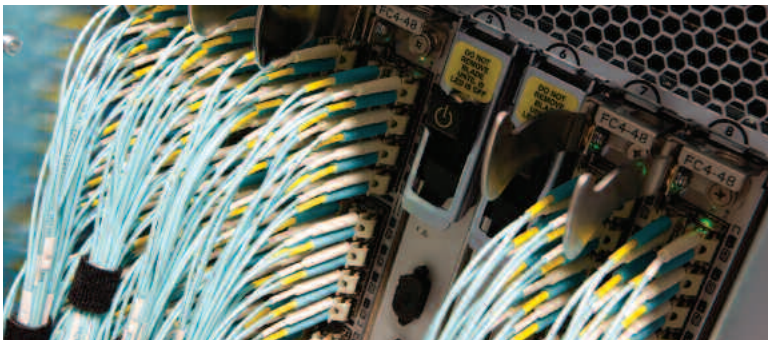
TekLAB is designed to help you easily configure the exact pre-terminated cable assemblies you need for all your projects. Simply click on "Configure" to build your assembly, generate the schematic, request a quote and place your order through the distributor of your choice. The online quotation and ordering system ensures prompt response from the Berk-Tek dedicated customer service team.



MAXIMIZE DENSITY WITH CABLE CONSTRUCTIONS OPTIMIZED FOR PRE-TERMINATED ASSEMBLIES

Berk-Tek offers the industry's premier fiber optic cable line for the construction of Pre-Terminated Assemblies. Our complete line of indoor, outdoor and indoor/outdoor cable constructions ensure you have the flexibility to select the proper cable for your application. Allowing you to design the highest performing and most reliable solution with the lowest cost of ownership.

Berk-Tek's pre-terminated cables feature laser-optimized 50 micron GIGAlite™, GIGAlite-10 and GIGAlite-10XB Enhanced Multimode, as well as our standard 62.5 micron multimode fibers and low water peak single-mode fibers. Cabling options include the compact and rugged Micro Data Center Plenum (MDP) and High Density Distribution Cable (ACP) as well as Adventum® indoor/outdoor cable, ArmorTek™ interlocking armor, Premise Distribution and Ribbon cable constructions. Each pre-terminated multi-fiber cable is custom built to your specific requirements.



OPTICAL CABLING INNOVATIONS



MDP (Micro Data Center Plenum) indoor cables are designed specifically to enable high density backbone connectivity in existing or new data centers. These rugged cables are available in fiber counts from four to 288 optical fibers. This design offers dramatically reduced cable diameters of up to 50% over typical indoor/outdoor and premises distribution style cable offerings. These cables, when pre-terminated using industry standard MPO (MTP®)* multi-fiber optical connectors, provide the highest density, most flexible backbone connectivity solution available for data centers and SAN installations.



High Density Distribution Cable (ACP) is a compact, indoor-only loose tube cable with the strength to provide superior patching capabilities over the lifespan of your installation. By including aramid within the 3.0 mm tube containing the optical fibers, this design delivers both a compact cross-section and superior strain relief capabilities. With fiber counts of up to 432 optical strands, ACP is an outstanding choice to support the parallel transmission requirements of 40/100G Ethernet.

*MTP is a registered trademark of US Conec, LTD.



Don't Let a Good Thing Come to an End.

Maintain the caliber of your system beyond the patch panel with Berk-Tek's new Optical Patch Cords. Now you can bring Berk-Tek brand quality all the way to your device and ensure superior connectivity, every time.

SINGLE-MODE OPTICAL PATCH CORDS



Part Number	Description	Features & Benefits
11049008	Duplex SC-Duplex SC, 1 meter length	<ul style="list-style-type: none"> ▶ Single-mode Low Water Peak ▶ 0.3 dB Maximum Insertion Loss ▶ -55 dB Reflectance ▶ Superior flexibility
11049009	Duplex SC-Duplex SC, 3 meter length	
11049010	Duplex SC-Duplex SC, 5 meter length	
11049011	Duplex SC-Duplex LC, 1 meter length	
11049012	Duplex SC-Duplex LC, 3 meter length	
11049013	Duplex SC-Duplex LC, 5 meter length	
11049081	Duplex LC-Duplex LC, 1 meter length	
11049082	Duplex LC-Duplex LC, 3 meter length	
11049083	Duplex LC-Duplex LC, 5 meter length	

LASER OPTIMIZED MULTIMODE OPTICAL PATCH CORDS



Part Number	Description	Features & Benefits
11048986	Duplex SC-Duplex SC, 1 meter length	<ul style="list-style-type: none"> ▶ OM3, 50 μm Multimode ▶ 2000 MHz•km EMB @ 850nm ▶ 0.3 dB Maximum Insertion Loss ▶ Superior flexibility
11048987	Duplex SC-Duplex SC, 3 meter length	
11048988	Duplex SC-Duplex SC, 5 meter length	
11048993	Duplex SC-Duplex LC, 1 meter length	
11048994	Duplex SC-Duplex LC, 3 meter length	
11049000	Duplex SC-Duplex LC, 5 meter length	
11049001	Duplex LC-Duplex LC, 1 meter length	
11049002	Duplex LC-Duplex LC, 3 meter length	
11049007	Duplex LC-Duplex LC, 5 meter length	

62.5/125 μ m MULTIMODE OPTICAL PATCH CORDS



Part Number	Description	Features & Benefits
11049084	Duplex SC-Duplex SC, 1 meter length	<ul style="list-style-type: none"> ▶ OM1, FDDI Grade 62.5 μm Multimode ▶ 0.3 dB Maximum Insertion Loss ▶ 2000 MHz•km EMB @ 850nm ▶ Superior flexibility
11049085	Duplex SC-Duplex SC, 3 meter length	
11049090	Duplex SC-Duplex SC, 5 meter length	
11049091	Duplex SC-Duplex LC, 1 meter length	
11049092	Duplex SC-Duplex LC, 3 meter length	
11049093	Duplex SC-Duplex LC, 5 meter length	
11049094	Duplex LC-Duplex LC, 1 meter length	
11049096	Duplex LC-Duplex LC, 3 meter length	
11049097	Duplex LC-Duplex LC, 5 meter length	

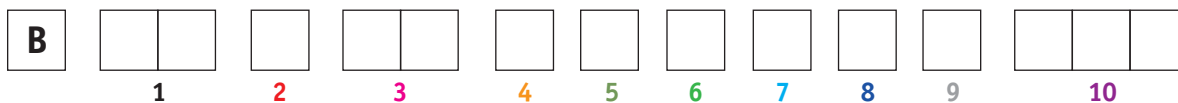
BERK-TEK OPTICAL PATCH

CORDS provide guaranteed performance and reliability to ensure system connectivity. These low cost patch cords meet or exceed industry standards with superior optical geometries and low loss. Standard cabling is plenum flame rated 2mm zip cord for maximum installation environment compatibility. Riser-rated cabling is also available. Standard A-B polarity per TIA-568-C. Custom polarity requirements available upon request. Additional patch cord configurations including most optical connectors, fiber lengths, and cable/flame rating options are available upon request.

FEATURES

- ▶ Standard offerings include duplex LC-duplex LC, duplex LC-duplex SC, and duplex SC-duplex SC
- ▶ Standard optical fiber offerings include:
 - 62.5/125 μ m FDDI grade multimode,
 - 50/125 μ m OM3 multimode
 - OS1/OS2 Low Water Peak SMF
- ▶ Standard lengths of 1m, 3m, and 5m
- ▶ Ceramic ferules
- ▶ 100% loss testing with a maximum insertion loss of 0.3 dB
- ▶ Additional connector, fiber, and length options available upon request
- ▶ Plenum rated

BERK-TEK PRE-TERMINATED MULTI-FIBER CABLE PART NUMBERING SYSTEM



1 Select Cable Type*

- AT = Adventum Tight Buffer (I/O, 2 Fiber, Loose Tube, Dry Block)
- AK = Adventum Tight Buffer Interlocking Armor (I/O, 2 Fiber, Loose Tube, Dry Block)
- LT = Adventum (I/O Loose Tube, 6-216 Fiber, Dry Block)
- LK = Adventum Interlocking Armor (I/O Loose Tube, 6-216 Fiber, Dry Block)
- MD = Micro Data Center Loose Tube (Indoor Micro Loose Tube)
- MK = Micro Data Center Loose Tube Interlocking Armor (Indoor Micro Loose Tube)
- PD = Premises Distribution (Indoor, Tight Buffer, 6-144 Fiber)
- PK = Premises Distribution Interlocking Armor (Indoor, Tight Buffer, 6-144 Fiber)
- RD = Ribbon Interconnect (Indoor, 12 Fiber Ribbon)
- I2 = Interconnect Round (Horizontal Cabling, Tight Buffer, 2 Fiber)
- I4 = Interconnect Round (Horizontal Cabling, Tight Buffer, 4 Fiber)
- AC = High Density Distribution Cable (Indoor Loose Tube, 6-432 Fiber)

2 Select Cable Flame Rating

- P = Plenum (OFNP)
- R = Riser (OFNR)

3 Select Number of Fiber Strands*

- 02 = 2-fiber (AT, AK, I2)
- 04 = 4-fiber (I4, MD, MK)
- 06 = 6-fiber (LT, LK, PD, PK)
- 12 = 12-fiber (LT, LK, MD, MK, PD, PK, RD)
- 24 = 24-fiber (LT, LK, MD, MK, PD, PK)
- 48 = 48-fiber (LT, LK, MD, MK, PD, PK)
- 72 = 72-fiber (LT, LK, MD, MK, PD, PK)
- 44 = 144-fiber (LT, PD)
- 16 = 216-fiber (LT)

HYBRIDS (MMF/SMF)		
A = 06	G = 02	substitute letter for strand count of each fiber type
B = 12	H = 36	
C = 24	I = 108	select MMF first
D = 48	J = 120	
E = 72	K = 144	
F = 96	L = 240	
example: 48 MMF/24 SMF = DC		

4 Select Fiber Type

- C = 62.5/125µm (200/500 MHz·km) Multimode-CB3510/25
- G = 62.5/125µm (200/500 MHz·km) GIGAlite™ Multimode-GB3510/25
- L = 50/125µm (700/500 MHz·km) GIGAlite Multimode-LB3010/75
- E = 50/125µm (2000/500 MHz·km) GIGAlite-10 Multimode-EB3010/25
- F = 50/125µm (4700/500 MHz·km) GIGAlite-FB Multimode-FB3010/F5
- X = 50/125µm (4900/500 MHz·km) GIGAlite-10XB Multimode-XB3010/X5
- A = Single-mode-AB0707 when PD, PK, RD, I2 & I4
- Single-mode-AB0403 when LT & LK for hybrids select MMF Type only

5 Select Connector Type for Side A (Outside/Pulling End)

MULTIMODE

- 1 = Simplex SC/PC
- 2 = Duplex SC/PC (With Removable Clip)
- 3 = Simplex LC/PC
- 4 = Duplex LC/PC (With Removable Clip)
- 5 = ST/PC
- 6 = MT-RJ Female (2-fiber)**
- 7 = MTP Female (12-fiber)**
- 0 = MTP Male (12-fiber)**
- R = MTP Female (0.5 dB I.L.)**
- L = MTP Female (0.35 dB I.L.)**
- 8 = FC/PC
- 9 = MTRJ (Male)
- Q = ESCON
- N = No Connector Side A

SINGLE-MODE

- A = Simplex SC/UPC
- B = Duplex SC/UPC (With Removable Clip)
- C = Simplex LC/UPC
- D = Duplex LC/UPC (With Removable Clip)
- E = MTP Female (12-fiber)
- 0 = MTP Male (12-fiber)
- F = FC/UPC
- G = Simplex SC/APC
- H = Duplex SC/APC (With Removable Clip)
- I = FC/APC
- J = MT-RJ Female
- K = ST/UPC
- M = LC/APC Single-mode
- N = No Connector Side A
- P = SC Uniboot (Multimode or Single-mode)
- Q = ESCON
- 9 = MTRJ (Male)

HYBRIDS (MMF/SMF)

- Z = Simplex SC (PC/UPC)
- Y = Duplex SC (PC/UPC) (With Addable/Removable Clip)
- W = Simplex LC (PC/UPC)
- V = Duplex LC (PC/UPC) (With Addable/Removable Clip)

- X = ST for Hybrids
- U = MTP (Female)**
- T = FC (PC/UPC)
- N = No Connector Side A
- R = Reduced loss (0.50 dB)
- L = Low loss (0.35 dB)

6 Select Connector Type for Side B (Inside End)

- Use same options from section 5
- N = No Connector Side B

7 Select Break-out Length Side A (Outside End)

- Default**
- F = 2.0mm Furcation with standard 39 in. break-out
- Available**
- S = 39 in. 900 micron break-out
- C = Custom (Contact Customer Service)
- Custom break-outs require a descriptor**
- N = No break-out, connectors Side B not selected
- Tolerances: +/- 2.0 in.

8 Select Break-out Length Side B (Inside End)

- Default**
- F = 2.0mm Furcation with standard 39 in. break-out
- Available**
- S = 39 in. 900 micron break-out
- C = Custom (Contact Customer Service)
- Custom break-outs require a descriptor**
- N = No break-out, connectors Side B not selected
- Tolerances: +/- 2.0 in.

9 Select the Pre-terminated Configuration***

- N = No Pulling Eye
- P = Pulling Eye Side A (Outside End)
- D = Pulling Eyes Both Sides
- Connector stagger: 2.5 in. nominal
- Pulling eye OD: varies from 0.75 inches to 3 inches

10 Select Length of Cable in Feet

- Example: 090 = 90 ft., 300 = 300 ft.
- Standard cable lengths available up to 3048 meters (9999 ft.)
- Additional lengths Available.

Cable lengths are measured from break-out transition to break-out transition

Tolerances are listed on assembly drawing
Reel chart available for put-up configurations

BERK-TEK CABLE STANDARD JACKET COLOR CODES

CABLE	FIBER (SECTION 4)	FLAME RATING	JACKET COLOR
LT, LK, MD, MK (Loose Tube)	C, G, L	Plenum	Orange
	E, F, X		Aqua
	A	Riser	Yellow
AT, AK (Tight Buffered Loose Tube Indoor/Outdoor)	C, G, L, A, E, F, X	Riser and Plenum	Black
	C, G, L	Riser and Plenum	Orange
E, F, X	Aqua		
PD, PK, RD, I2 and I4 (Tight Buffered, Ribbon Interconnect, Horizontal Interconnect, 2 or 4 fiber)	A	Plenum	Yellow

Other colors available upon request.

* Additional cables available, visit www.berktek.com/TekLab for a complete offering or contact a Berk-Tek representative at 1-800-BERK-TEK (1-800-237-5835) for custom requirements.

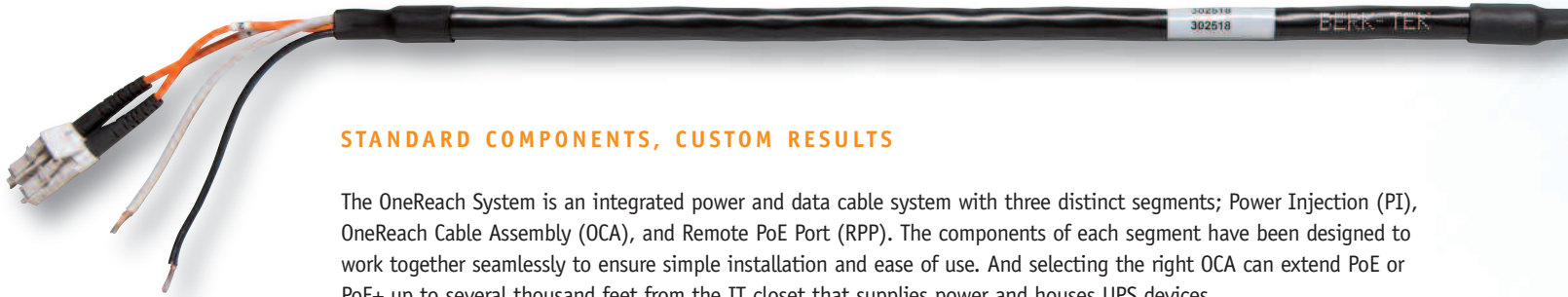
** Secure Keyed MTP connectors available.

*** For maximum protection of the terminated inside cable end, a pulling eye on BOTH cable ends should be specified.

Take Simplicity to New Distances **with OneReach.**

Until now, provisioning remotely located security cameras, access control devices or wireless access points has meant installing local power, usually at a significant cost. **Not any more.**

Now you can rely on OneReach to transmit both power and data to distances previously unreachable with conventional PoE and PoE+ solutions. Using OneReach not only allows for a lower cost installation, but also delivers the benefits of infrastructure simplification and remote management capabilities.



STANDARD COMPONENTS, CUSTOM RESULTS

The OneReach System is an integrated power and data cable system with three distinct segments; Power Injection (PI), OneReach Cable Assembly (OCA), and Remote PoE Port (RPP). The components of each segment have been designed to work together seamlessly to ensure simple installation and ease of use. And selecting the right OCA can extend PoE or PoE+ up to several thousand feet from the IT closet that supplies power and houses UPS devices.

Designed to support single or multiple remote devices, the variety of available components allows you to build the exact system you need to meet your specific installation needs. Factory terminated and tested assemblies that combine multiple stranded copper conductors and optical fibers arrive ready to install and flawlessly interface with a variety of media modules for both the closet and remote locations.

A SIMPLE SOLUTION FOR REMOTE POWER NEEDS

Power Injection Devices

PART NO.	DESCRIPTION	SLOTS OCCUPIED	QTY. OF SUPPORTED PoE POWERED DEVICES	
			PoE ports supported	PoE+ ports supported
81000170	PoE Media Module, 1-port (no chassis required), w/ext AC Power Supply	NA	1	NA
81000217	PoE+ Media Module, 1-port (no chassis required), w/ext AC PS	NA	1	1
81000166	2U Power Injector Chassis, w/rear terminal blocks, 6 available slots	NA	NA	NA
81000167	4U Power Injector Chassis, w/rear terminal blocks, 12 available slots	NA	NA	NA
81000168	PoE Power Supply Module initial, 300W, AC input: At least one REQUIRED for every Power Injector Chassis	2	8	NA
81000169	PoE Power Supply Module additional, 300W, AC input	2	16	NA
81000215	POE+ Power Supply Module; dual voltage, 12 & 54VDC 300W, AC input	2	8	6
81000216	PoE+ Power Supply Module; single voltage, 54VDC 300W, AC input	2	16	12
81000173	Media Module, 4-port 10/100Mb/s, MTP, 62.5/125µm MM, RJ45	1	4	NA
81000172	Media Module, 4-port 10/100Mb/s, Rear LC Dup, 62.5/125µm MM, RJ45	1	4	NA
81000190	Blanking panel	1	NA	NA





ONEREACH BENEFITS

- ▶ Enables PoE equipment to be located more than 100 meters from the switch
- ▶ Simplifies network and device management through centralized IT infrastructure
- ▶ Cost savings versus installation of a new electrical outlet
- ▶ CL3R-OF/PLTC-OF allows cable to be installed in communication pathways
- ▶ Ease of installation with pre-terminated and factory tested products arriving ready to install

OneReach Cable Assemblies

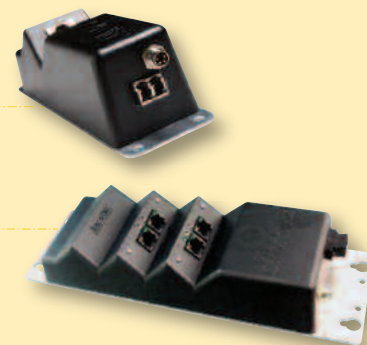
NUMBER OF CONDUCTORS	CONDUCTOR GAUGE SIZE	CABLE TYPE	FIBER TYPE	# OF FIBERS	CABLE PART NUMBER	APPLICATION	SUPPORTED DISTANCE TO RPP: PoE (ft.)	PoE+ (ft.)
2	18,18	Tight buffer	OM1	2	BHCR02CAA04NFM8NPxxx	1-port assembly	1,000	650
2	12,12	Tight buffer	OM1	2	BHCR02CDD04NFM8NPxxx	1-port assembly	3,850	2500
3	18,18,18	Dry loose tube	OM1	8	BACR08CAAA77NNM8NPxxx	4-port assembly	250	160
3	12,12,18	Dry loose tube	OM1	8	BACR08CADD77NNM8NPxxx	4-port assembly	960	625

xxx is length of assembly in feet. Contact Berk-Tek Inside Sales at 1-800-BERK-TEK for exact part number and pricing.

Remote PoE Ports

PART NO.	DESCRIPTION	QTY. OF SUPPORTED POWERED DEVICES
81000174	PoE Remote Converter, 1-port 10/100Mb/s, LC duplex, MM, RJ45, M8 Power Input	1
81000218	PoE+ Remote Converter, 1-port 10/100Mb/s, LC Duplex, MM, RJ45, M8 Pwr Input	1
81000176	PoE Remote Converter, 4-port 10/100Mb/s, MTP(m), 62.5/125µm MM, RJ45	4
81000177	PoE+ Remote Converter, 4-port 10/100Mb/s, MTP, 62.5/125µm MM, RJ45	4

Technical support for the OneReach product can be reached at: 888-939-4528 or via email at fiber-pc.us@nexans.com



PREMISES DISTRIBUTION

TIGHT BUFFER
FIBER OPTIC CABLE



TEMPERATURE RATING

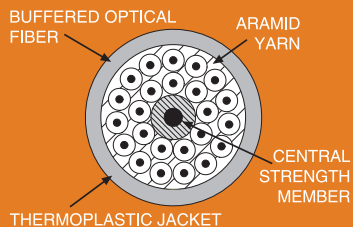
	PDR	PDP
OPERATION	-40°C to +75°C	-20°C to +75°C
STORAGE	-40°C to +85°C	-40°C to +85°C
INSTALLATION	-20°C to +75°C	0°C to +75°C

Sample Part Number: PDP024EB3010/25



AT A GLANCE

- ▶ Direct termination
- ▶ Up to 144 fibers
- ▶ Plenum or riser-rated
- ▶ Reduced diameter constructions



Berk-Tek's **PREMISES DISTRIBUTION TIGHT BUFFER FIBER OPTIC CABLE** is designed for installation in riser and plenum environments and horizontal and interbuilding backbone structures. Berk-Tek's tight buffered cable is designed for direct connectorization of the standard multimode, single-mode or GIGALite™ fibers.

FEATURES

- ▶ Flexible, small-diameter, 900 μm tight-buffered construction
- ▶ High tensile strength and small-diameter design
- ▶ Six to 144-count fiber construction designs ideal for horizontal and backbone installation
- ▶ Single-mode, multimode and hybrid designs available
- ▶ Supports 40/100 Gigabit Ethernet, 10 Gigabit Ethernet, 10BASE-F, Fast Ethernet, FOIRL, Fibre Channel FC-PH, ATM, Gigabit Ethernet, FDDI, Sonet, voice, video and other networking applications
- ▶ Also available in low-smoke zero-halogen design

BENEFITS

- ▶ Cost-saving design, easy to install and terminate
- ▶ Provides for greater pulling distances, reducing installation time
- ▶ Broad design selection allows for mix and match of fiber components to specific networking applications

CONSTRUCTION

900 μm tight-buffered fibers surrounded by aramid yarns. Sheathed using a special, state-of-the-art polymer material. All-dielectric.

FLAME RATING

OFNR/FT-4
OFNP/FT-6

STANDARDS

International ISO/IEC 11801
European EN 50173
North American Telcordia GR-409
ANSI/ICEA S-83-596

APPLICATIONS

IEEE 802.3 100GBASE-SR	100 Gb/s
IEEE 802.3 40GBASE-SR	40 Gb/s
IEEE 802.3 10GBASE-X	10 Gb/s
IEEE 802.3 1000BASE-SX/LX	1 Gb/s
IEEE 802.3 10BASE-F	10 Mb/s
IEEE 802.3 FOIRL	10 Mb/s
FDDI	100 Mb/s
ATM	155 Mb/s
	622 Mb/s
	1.2/2.4 Gb/s
Fibre Channel FC-PH	1.062 Gb/s

SPECIAL OPTIONS

Fiber in a Box packaging optional for 6 and 12 fiber constructions

RISER RATED TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER PREFIX	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
		in.	mm	lb./kft.	kg/km	install		long term		install		long term	
6	PDR006	0.224	5.7	19	29	3.4	8.5	2.2	5.7	150	667	45	200
12	PDR012	0.246	6.2	25	37	3.7	9.4	2.5	6.2	150	667	45	200
24	PDR024	0.335	8.5	47	70	5.0	12.8	3.4	8.5	150	667	45	200
48	PDR12B048	0.590	15.0	131	196	8.9	22.5	5.9	15.0	600	2670	180	800
72	PDR12B072	0.732	18.6	203	301	11.0	27.9	7.3	18.6	600	2670	180	800
96	PDR12B096	0.880	22.4	291	433	13.2	33.5	8.8	22.4	600	2670	180	800
144	PDR12B0144	0.940	23.9	310	461	14.1	35.8	9.4	23.9	1000	4445	300	1335

PLENUM RATED TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER PREFIX	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
		in.	mm	lb./kft.	kg/km	install		long term		install		long term	
6	PDP006	0.180	4.6	12	18	2.7	6.9	1.8	4.6	150	667	45	200
12	PDP012	0.210	5.3	18	26	3.2	8.0	2.1	5.3	150	667	45	200
24	PDP024	0.285	7.2	37	55	4.3	10.9	2.9	7.2	150	667	45	200
48	PDP12B048	0.565	14.4	136	202	8.5	21.5	5.7	14.4	600	2640	180	800
72	PDP12B072	0.677	17.2	212	316	10.2	25.8	6.8	17.2	600	2640	180	800
96	PDP12B096	0.865	22.0	313	466	13.0	33.0	8.7	22.0	600	2640	180	800
144	PDP12B0144	0.920	23.4	318	474	13.8	35.1	9.2	23.4	1000	4445	300	1335

TECHNICAL DATA

FIBER TYPE	PART NUMBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz*km)	DISTANCE (meters)	
ENHANCED SINGLE-MODE					1 GbE	10 GbE
Standard for Tight Buffer	AB0707	1310/1550	0.7/0.7	N/A	≥ 5000 @ 1310 nm	≥ 10,000
MULTIMODE					1 GbE	10 GbE
62.5/125 μm - Standard	CB3510/25	850/1300	3.5/1.0	200/500	300/600	36/300
50/125 μm - GIGALite	LB3010/75	850/1300	3.0/1.0	950/500	750/600	150/300
50/125 μm - GIGALite-10	EB3010/25	850/1300	3.0/1.0	2000/500	1000/600	300/300
50/125 μm - GIGALite-10XB	XB3010/X5	850/1300	3.0/1.0	4900/500	1210/600	600/300

For fiber details, refer to pages 56 to 57.

Berk-Tek's **PREMISES DISTRIBUTION INDOOR/OUTDOOR TIGHT BUFFER FIBER OPTIC CABLE** is designed for LAN/WAN campus and building backbone infrastructure. Special jacketing materials used on plenum rated designs enable use in harsh environments such as power plants, mining, airports and petrochemical installations.

FEATURES

- ▶ Plenum rating enables installations to go directly from outside plant into building with no transition point requirement
- ▶ High tensile strength, crush-resistant and small-diameter design
- ▶ Ready for direct termination, no fan out kits are needed
- ▶ All-dielectric design
- ▶ Available with Armor-Tek™ Interlocking Armor
- ▶ Water-blocked core or subunits using Dry-Gel system
- ▶ Available with new bend-insensitive, single-mode fibers

BENEFITS

- ▶ Can incorporate an optional tracer wire
- ▶ Designed for outside plant installation (non-aerial lashed)
- ▶ Greater pulling distances possible due to high tensile strength
- ▶ Low cable plant maintenance and ease of installation
- ▶ Flexible, reduced cable diameter with easy access to tight buffer fibers

CONSTRUCTION

900 μm tight-buffered fibers surrounded by aramid yarns.

OUTDOOR CONSIDERATIONS

Tight buffer fiber cables are not suitable for aerial-lashed installations.

FLAME RATING

OFNR/FT-4
OFNP/FT-6

STANDARDS

International ISO/IEC 11801
European EN 50173
North American Telcordia GR-409
ICEA S-83-596
ANSI/ICEA S-104-696

APPLICATIONS

IEEE 802.3 100GBASE-SR 100 Gb/s
IEEE 802.3 40GBASE-SR 40 Gb/s
10GBASE-SR/SW 10 Gb/s
10GBASE-LX4 10 Gb/s
IEEE 802.3 100BASE-SX/FX 1 Gb/s
IEEE 802.3 1000BASE-SX/LX 1 Gb/s
IEEE 802.3 10BASE-F 10 Mb/s
ATM 155 Mb/s
622 Mb/s
Fibre Channel FC-PH 1.062 Gb/s
2.125 Gb/s

TECHNICAL DATA — RISER (OFNR) RATED WITH A PVC SHEATH

FIBERS	PART NUMBER 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
6	PDR006-I/O(BLA)	0.224	5.7	19	29	3.4	8.5	2.2	5.7	150	667	45	200
12	PDR012-I/O(BLA)	0.246	6.2	25	37	3.7	9.4	2.5	6.2	150	667	45	200
24	PDR024-I/O(BLA)	0.335	8.5	47	70	5.0	12.8	3.4	8.5	150	667	45	200
48	PDR12B048-I/O(BLA)	0.590	15.0	131	196	8.9	22.5	5.9	15.0	600	2670	180	800
72	PDR12B072-I/O(BLA)	0.732	18.6	203	301	11.0	27.9	7.3	18.6	600	2670	180	800
96	PDR12B096-I/O(BLA)	0.880	22.4	291	433	13.2	33.5	8.8	22.4	600	2670	180	800
144	PDR12B144-I/O(BLA)	0.940	23.9	310	461	14.1	35.8	9.4	23.9	1000	4445	300	1335

TECHNICAL DATA — PLENUM (OFNP) RATED WITH A FLUOROPOLYMER SHEATH

FIBERS	PART NUMBER 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
6	PDPO06-HE(BLA)	0.208	5.3	18	26	3.1	7.9	2.1	5.3	300	1335	90	400
12	PDPO12-HE(BLA)	0.255	6.5	30	44	3.8	9.7	2.6	6.5	300	1335	90	400
24	PDPO24-HE(BLA)	0.287	7.3	36	53	4.3	10.9	2.9	7.3	300	1335	90	400
48	PDP12B048-HE(BLA)	0.565	14.4	136	202	8.5	21.5	5.7	14.4	600	2640	180	800
72	PDP12B072-HE(BLA)	0.677	17.2	212	316	10.2	25.8	6.8	17.2	600	2640	180	800
96	PDP12B096-HE(BLA)	0.865	22.0	313	466	13.0	33.0	8.7	22.0	800	3559	240	1068
144	PDP12B144-HE(BLA)	0.920	23.4	318	474	13.8	35.1	9.2	23.4	1000	4445	300	1335

TECHNICAL DATA

FIBER TYPE	PART NUMBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz*km)	DISTANCE (meters)	
ENHANCED SINGLE-MODE					1 GbE	10 GbE
Standard for Tight Buffer	AB0707	1310/1550	0.7/0.7	N/A	≥ 5000 @ 1310 nm	≥ 10,000
MULTIMODE					1 GbE	10 GbE
62.5/125 μm - Standard	CB3510/25	850/1300	3.5/1.0	200/500	300/600	36/300
50/125 μm - GIGAlite™	LB3010/75	850/1300	3.0/1.0	950/500	750/600	150/300
50/125 μm - GIGAlite-10	EB3010/25	850/1300	3.0/1.0	2000/500	1000/600	300/300
50/125 μm - GIGAlite-10XB	XB3010/X5	850/1300	3.0/1.0	4900/500	1210/600	600/300

For fiber details, refer to pages 56 to 57.

PREMISES DISTRIBUTION INDOOR/OUTDOOR

TIGHT BUFFER FIBER OPTIC CABLE



TEMPERATURE RATING

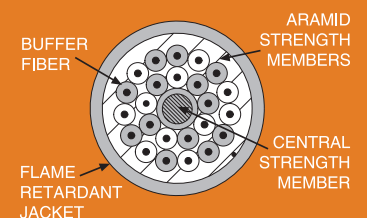
	PDR-I/O(BLA)	PDP-HE(BLA)
OPERATION	-40°C to +75°C	-20°C to +75°C
STORAGE	-40°C to +85°C	-40°C to +85°C
INSTALLATION	-20°C to +75°C	-20°C to +75°C

Sample Part Number: PDP024CB3510/25-HE(BLA)



AT A GLANCE

- ▶ Indoor/Outdoor
- ▶ 900 μm tight buffer
- ▶ Water-blocked
- ▶ Sunlight resistant



INTERCONNECT

TIGHT BUFFER
FIBER OPTIC CABLE



TEMPERATURE RATING

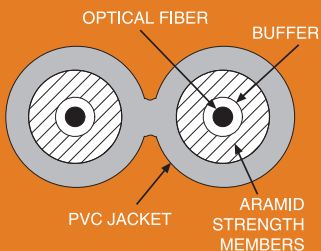
OPERATION	-20°C to +75°C
STORAGE	-40°C to +85°C
INSTALLATION	0°C to +70°C

Sample Part Number: ICPOXLB3010/75



AT A GLANCE

- ▶ Riser
- ▶ Plenum
- ▶ Low-smoke zero-halogen (LSZH)
- ▶ 900 μm or 600 μm tight buffer



Berk-Tek's **INTERCONNECT** TIGHT BUFFER FIBER OPTIC CABLE is designed for installation in riser and plenum horizontal structured cabling applications. Berk-Tek's Interconnect tight-buffered cable is available with standard multimode, single-mode and GIGALite™ fibers.

FEATURES

- ▶ Flexible, small-diameter, 900 μm tight-buffered construction
- ▶ High tensile strength and small cable diameter design
- ▶ 1 through 4 fiber design for patch cable and horizontal installations
- ▶ Supports 10BASE-F, Fast Ethernet, FOIRL, Fibre Channel FC-PH, ATM, Gigabit Ethernet, FDDI, Sonet, voice, video and other networking applications
- ▶ Also available in low-smoke zero-halogen design
- ▶ MCx Series designs compatible with small form factor (SFF) connectors

BENEFITS

- ▶ Cost-saving design is easy to install and terminate
- ▶ Assurance that cables will meet required specifications for communication networking applications
- ▶ Space-saving design allows for dense cable installations

CONSTRUCTION

900 μm buffered fibers surrounded by aramid yarns. Sheathed using a special, state-of-the-art, polymer material. All-dielectric.

FLAME RATING

OFNR/FT-4
OFNP/FT-6

STANDARDS

International	ISO/IEC 11801
European	EN 50173
North American	Telcordia GR-409 ICEA S-83-596

APPLICATIONS

IEEE 802.3 100GBASE-SR	100 Gb/s
IEEE 802.3 40GBASE-SR	40 Gb/s
10GBASE-SR/SW	10 Gb/s
10GBASE-LX4	10 Gb/s
IEEE 802.3 10GBASE-X	10 Gb/s
IEEE 802.3 1000BASE-SX/LX	1 Gb/s
IEEE 802.3 10BASE-F	10 Mb/s
IEEE 802.3 FOIRL	10 Mb/s
FDDI	100 Mb/s
ATM	155 Mb/s
	622 Mb/s
	1.2/2.4 Gb/s
Fibre Channel FC-PH	1.062 Gb/s

RISER RATED TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER PREFIX	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
		in.	mm	lb./kft.	kg/km	install		long term		install		long term	
1	MCRO01	0.063	1.6	2	3	0.9	2.4	0.6	1.6	25	111	8	33
2 Duplex	MCROX0	.063 x .130	1.6 x 3.3	3	5	2.0	5.0	1.3	3.3	50	220	15	66
1	ICRO01-(D4)	0.079	2.0	3	4	1.2	3.0	0.8	2.0	50	220	15	66
2 Duplex	ICROX0-(D4)	.079 x .162	2.0 x 4.1	5	8	2.4	6.2	1.6	4.1	50	220	15	66
1	ICRO01	0.114	2.9	5	7	1.7	4.3	1.1	2.9	50	220	15	66
2 Duplex	ICROX0	.114 x .232	2.9 x 5.9	10	15	3.5	8.8	2.3	5.9	50	220	15	66
2 Round	ICRO02	0.187	4.7	12	17	2.8	7.1	1.9	4.7	150	660	45	198
4	ICRO04	0.187	4.7	12	18	2.8	7.1	1.9	4.7	150	660	45	198

PLENUM RATED TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER PREFIX	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
		in.	mm	lb./kft.	kg/km	install		long term		install		long term	
1	MCPO01	0.063	1.6	2.0	3.0	0.9	2.4	0.6	1.6	25	111	8	33
2 Duplex	MCPOX0	.063 x .130	1.6 x 3.3	4.0	6.0	2.0	5.0	1.3	3.3	50	220	15	66
1	ICPO01	0.116	2.9	6	8	1.7	4.4	1.2	2.9	50	220	15	66
2 Duplex	ICPOX0	.114 x .232	2.9 x 5.9	11	16	3.5	8.8	2.3	5.9	50	220	15	66
2 Round	ICPO02	0.170	4.3	12	18	2.6	6.5	1.7	4.3	150	660	45	198
4	ICPO04	0.170	4.3	13	20	2.6	6.5	1.7	4.3	150	660	45	198

TECHNICAL DATA

FIBER TYPE	PART NUMBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz*km)	DISTANCE (meters)	
ENHANCED SINGLE-MODE					1 GbE	10 GbE
Standard for Tight Buffer	AB0707	1310/1550	0.7/0.7	N/A	≥ 5000 @ 1310 nm	≥ 10,000
MULTIMODE					1 GbE	10 GbE
62.5/125 μm - Standard	CB3510/25	850/1300	3.5/1.0	200/500	300/600	36/300
50/125 μm - GIGALite	LB3010/75	850/1300	3.0/1.0	950/500	750/600	150/300
50/125 μm - GIGALite-10	EB3010/25	850/1300	3.0/1.0	2000/500	1000/600	300/300
50/125 μm - GIGALite-10XB	XB3010/X5	850/1300	3.0/1.0	4900/500	1210/600	600/300

For fiber details, refer to pages 56 to 57.

Berk-Tek's **ADVENTUM® TIGHT BUFFER FIBER OPTIC CABLE** is designed specifically for FTTH, MDU and MTU deployments. This unique cable design is also ideal for security camera applications.

ADVENTUM® TIGHT BUFFER FIBER OPTIC CABLE

FEATURES

- ▶ Plenum and riser ratings enable installations to go directly from outside plant into building with no transition point requirement
- ▶ High tensile strength, crush-resistant and small-diameter design
- ▶ Tight-buffered fibers are ready for direct termination, no fan out kits are needed
- ▶ All-dielectric design
- ▶ Available with Interlocking Armor
- ▶ Fully water-blocked core using a dry water-blocking system
- ▶ Available with new bend-insensitive single-mode fibers

BENEFITS

- ▶ Can incorporate an optional tracer wire
- ▶ Designed for outside plant installation (non-aerial lashed)
- ▶ Greater pulling distances possible due to high tensile strength
- ▶ Long-term reliability improved over traditional tight buffer premises cables
- ▶ Low cable-plant maintenance, ease-of-installation
- ▶ Reduced cable diameter, flexible, with easy access to buffer tube and fibers

CONSTRUCTION

Each DryGel water-blocked buffer tube contains 1 or 2, 900 μm tight-buffered fibers.

- ▶ 3 mm buffer tube diameter
- ▶ Thermoplastic jacket material

OUTDOOR CONSIDERATIONS

Loose tube cables are recommended if interbuilding conduit systems lie above the frost line and likely to fill with water. Adventum Tight Buffer cables are not suitable for aerial-lashed installations.

FLAME RATING

OFNR/FT-4
OFNP/FT-6

STANDARDS

North American Telcordia GR-409
ANSI/ICEA S-87-640
ANSI/ICEA S-83-596
ANSI/ICEA S-104-696

European EN 50173I

International SO/IEC 11801

APPLICATIONS

IEEE 802.3 100GBASE-SR	100 Gb/s
IEEE 802.3 40GBASE-SR	40 Gb/s
10GBASE-SR/SW	10 Gb/s
10GBASE-LX4	10 Gb/s
IEEE 802.3 100BASE-SX/FX	10 Gb/s
IEEE 802.3 1000BASE-SX/LX	1 Gb/s
IEEE 802.3 10BASE-FL	10 Mb/s
ATM	155 Mb/s
	622 Mb/s
	1.2/2.4 Gb/s
Fibre Channel FC-PH	1.062 Gb/s
	2.125 Gb/s

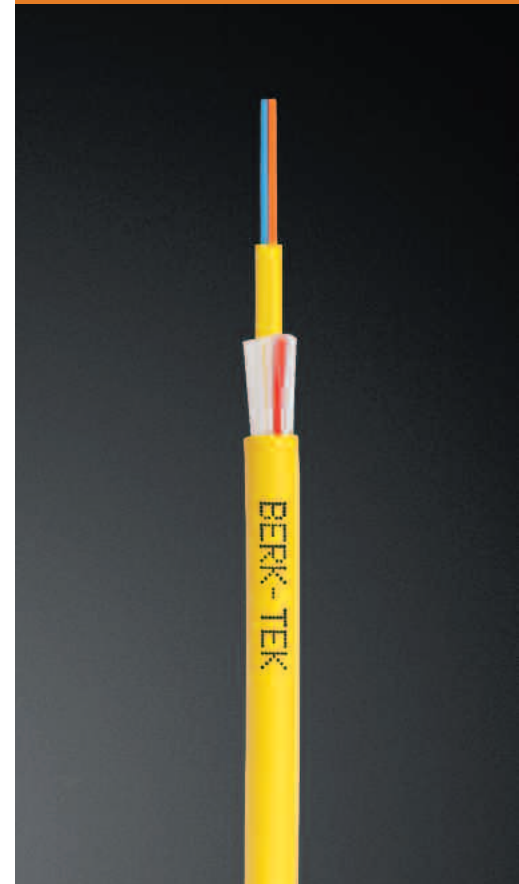
TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER 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
1-2	ATRO02	0.235	6.0	22	33	3.5	9.0	2.4	6.0	300	1335	90	400
1-2	ATPO0x	0.235	6.1	26.0	38.0	3.5	9.0	2.4	6.0	300	1335	90	400

TECHNICAL DATA

FIBER TYPE	PART NUMBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz•km)	DISTANCE (meters)	
ENHANCED SINGLE-MODE					1 GbE	10 GbE
Standard for Tight Buffer	AB0707	1310/1550	0.7/0.7	N/A	≥ 5000 @ 1310 nm	≥ 10,000
MULTIMODE					1 GbE	10 GbE
62.5/125 μm - Standard	CB3510/25	850/1300	3.5/1.0	200/500	300/600	36/300
50/125 μm - GIGAlite™	LB3010/75	850/1300	3.0/1.0	950/500	750/600	150/300
50/125 μm - GIGAlite-10	EB3010/25	850/1300	3.0/1.0	2000/500	1000/600	300/300
50/125 μm - GIGAlite-10XB	XB3010/X5	850/1300	3.0/1.0	4900/500	1210/600	600/300

For fiber details, refer to pages 56 to 57.



TEMPERATURE RATING

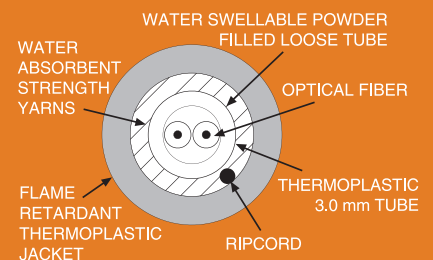
OPERATION	-20°C to +75°C
STORAGE	-40°C to +85°C
INSTALLATION	-0°C to +70°C

Sample Part Number: **ATP002AB0707**



AT A GLANCE

- ▶ Indoor/Outdoor
- ▶ Tight buffer
- ▶ Security to FTTH



12-FIBER RIBBON CABLE

FIBER OPTIC CABLE



TEMPERATURE RATING

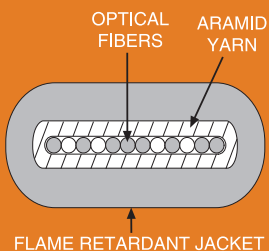
OPERATION	-20°C to +75°C
STORAGE	-40°C to +85°C
INSTALLATION	0°C to +60°C

Sample Part Number: RDP012EB3010/25



AT A GLANCE

- ▶ Data center and SANs
- ▶ 12-Fiber Ribbon
- ▶ Plenum rated or LSZH
- ▶ Small size allows for high-density packing in racks



Berk-Tek's **12-FIBER RIBBON CABLE** is a plenum-rated, 12-fiber, single-mode or multimode optical fiber ribbon with a protective aramid strength member layer and outer jacket. Ideally suited for use in a variety of closet and OEM situations, this cable features a low-friction, highly-flexible jacket material facilitating easy routing in tight, high-density termination environments.

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 EIA/TIA FOTP-31
- ▶ Peelable UV-curable matrix material
- ▶ Aramid strength members
- ▶ Qualified to ICEA S-83-596 and Telcordia GR-409

BENEFITS

- ▶ Easily interfaced to MT- and MTP-based connectors, as well as today's newest ribbon connectors
- ▶ Cable jacket design promotes ease of entry for all terminations
- ▶ Small size equals high-density packing in equipment racks and/or telecommunications closets
- ▶ Plenum rating covers most flame rating specifications
- ▶ Cable design offers excellent mechanical performance with superior crush and flex ratings
- ▶ Low-friction, highly-flexible jacket material facilitates easy routing in tight, high-density terminations

CONSTRUCTION

The ribbon is comprised of 12 optical 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 an MTP connector. Aramid strength members are applied between the ribbon and the extruded cable jacket to provide tensile strength and crush resistance. The outer jacket material is plenum-grade thermoplastic or low-smoke zero-halogen (LSZH).

FLAME RATING

OFNP/FT-6 (RDP)
LSZH option available

STANDARDS

International ISO/IEC 11801
North American Telcordia GR-409
ANSI/ICEA S-83-596

APPLICATIONS

Berk-Tek optical fiber ribbon cables are ideal for use 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:

IEEE 802.3 100GBASE-SR	100 Gb/s
IEEE 802.3 40GBASE-SR	40 Gb/s
IEEE 802.3 10BASE-X	10 Gb/s
IEEE 802.3 10BASE-SX/LX	1 Gb/s
IEEE 802.3 10BASE-F	10 Mb/s
IEEE 802.3 FOIRL	10 Mb/s
FDDI	100 Mb/s
ATM	155 Mb/s
	622 Mb/s
	1.2-2.4 Gb/s
Fibre Channel FC-PH	1.062 Gb/s

TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER PREFIX	DIMENSIONS		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
		in.	mm	lb./kft.	kg/km	install		long term		install		long term	
12	RDP012	0.100 x 0.200	2.5 x 5.1	8	12	3.0	7.6	2.0	5.1	180	800	54	240
12	RDZ012	0.100 x 0.200	2.5 x 5.1	7	10	3.0	7.6	2.0	5.1	180	800	54	240

TECHNICAL DATA

FIBER TYPE	PART NUMBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz*km)	DISTANCE (meters)	
ENHANCED SINGLE-MODE					1 GbE	10 GbE
Standard for Ribbon	AB0707	1310/1550	0.7/0.7	N/A	≥ 5000 @ 1310 nm	≥ 10,000
MULTIMODE					1 GbE	10 GbE
62.5/125 μm - Standard	CB3510/25	850/1300	3.5/1.0	200/500	300/600	36/300
50/125 μm - GIGAlite™	LB3010/75	850/1300	3.0/1.0	950/500	750/600	150/300
50/125 μm - GIGAlite-10	EB3010/25	850/1300	3.0/1.0	2000/500	1000/600	300/300
50/125 μm - GIGAlite-10XB	XB3010/X5	850/1300	3.0/1.0	4900/500	1210/600	600/300

For fiber details, refer to pages 56 to 57.

Berk-Tek's **TACTICAL FIBER TIGHT BUFFER** fiber optic cables go places other cables can't. With a rugged, crush-resistant, durable jacket and superior flexibility in cold temperatures, Tactical Fiber cables are able to withstand the harshest conditions—allowing for field deployable applications such as law enforcement and industrial environments as well as news and sports video coverage. Tactical Fiber cables are vigorously tested to withstand extreme temperatures, chemicals, impact and stressed flexibility. As a result, Tactical Fiber cables allow you to go in to the most unforgiving environments with safety and reliability.

TACTICAL FIBER

TIGHT BUFFER
FIBER OPTIC CABLE

FEATURES

- ▶ Wide operating temperature range
- ▶ Rugged, durable jacket
- ▶ Superior mechanical properties
- ▶ Superior flexibility in cold temperatures
- ▶ Available with optional radiation-hardened optical fibers
- ▶ Tight-buffered design allows direct connector termination
- ▶ Breakout or distribution style construction
- ▶ Available with a LSZH jacket

BENEFITS

- ▶ Flexibility allows for simple field deployment and redeployment
- ▶ Field repairs are supported due to tight-buffered fibers
- ▶ Rugged polyurethane sheath designed for harsh environments
- ▶ Compact size and lightweight design

STANDARDS

International	ISO/IEC 11801
European	EN 50173
North American	Telcordia GR-409 CECOM A3159879 ICEA S-104-696

APPLICATIONS

- ▶ Excellent for field deployable/retrievable applications such as news/sports coverage
- ▶ Petrochemical, heavy industrial, mining, and other harsh environments
- ▶ Law enforcement and tactical security applications
- ▶ Commercial security and sensor applications
- ▶ Fully water-blocked
- ▶ Available with copper conductors (12 - 24 AWG)

TESTED TO THE FOLLOWING TACTICAL CABLE REQUIREMENTS

Maximum Attenuation Rate	Cable Knot Test
Low/High Temp Bend	Cable Shrinkage
Impact Resistance	Durability of Identification Marking
Cold Impact Resistance	Temperature Range
Hot Impact Resistance	Temperature Cycling
Compressive Strength	Storage Temperature
Tensile Loading and Bending	Temperature/Humidity Cycling
Operating Tensile Loading and Bending	Thermal Shock
Cyclic Flexing	Freezing Water Immersion

IEEE 802.3 100GBASE-SR	100 Gb/s
IEEE 802.3 40GBASE-SR	40 Gb/s
IEEE 802.3 10GBASE-X	10 Gb/s
IEEE 802.3 1000BASE-SX/LX	1000 Mb/s
IEEE 802.3 10BASE-F	10 Mb/s
IEEE 802.3 FOIRL	10 Mb/s
FDDI	100 Mb/s
ATM	155 Mb/s
	622 Mb/s
	1.2/2.4 Gb/s
Fibre Channel FC-PH	1.062 Gb/s

TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER PREFIX	DIMENSIONS		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
		in.	mm	lb./kft.	kg/km	short term		long term		short term		long term	
	DISTRIBUTION					in.	cm	in.	cm	lb.	N	lb.	N
2	TFC002	0.228	5.8	16	24	3.4	8.7	2.3	5.8	400	1779	120	534
4	TFC004	0.228	5.8	17	25	3.4	8.7	2.3	5.8	400	1779	120	534
	HEAVY DUTY BREAKOUT	in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
4	TFHD004	0.301	7.6	26	39	4.5	11.5	3.0	7.6	490	2200	120	550
6	TFHD006	0.349	8.9	30	45	5.2	13.3	3.5	8.9	600	2670	150	667
12	TFHD012	0.504	12.8	78	116	7.6	19.2	5.0	12.8	750	3336	190	845

TECHNICAL DATA

FIBER TYPE	PART NUMBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz*km)	DISTANCE (meters)	
ENHANCED SINGLE-MODE					1 GbE	10 GbE
Standard for Tight Buffer	AB0707	1310/1550	0.7/0.7	N/A	≥ 5000 @ 1310 nm	≥ 10,000
MULTIMODE					1 GbE	10 GbE
62.5/125 μm - Standard	CB3510/25	850/1300	3.5/1.0	200/500	300/600	36/300
50/125 μm - GIGAlite™	LB3010/75	850/1300	3.0/1.0	950/500	750/600	150/300
50/125 μm - GIGAlite-10	EB3010/25	850/1300	3.0/1.0	2000/500	1000/600	300/300
50/125 μm - GIGAlite-10XB	XB3010/X5	850/1300	3.0/1.0	4900/500	1210/600	600/300

For fiber details, refer to pages 56 to 57.

TEMPERATURE RATING

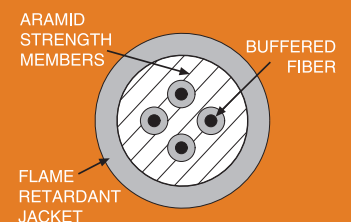
OPERATION	-46°C to +71°C
STORAGE	-55°C to +85°C
INSTALLATION	-46°C to +71°C

Sample Part Number: TFC004CB3510/25



AT A GLANCE

- ▶ Outdoor tactical cable
- ▶ Tight buffered 2-24 fiber
- ▶ Distribution or breakout design



HEAVY DUTY BREAKOUT CABLE

TIGHT BUFFER
FIBER OPTIC CABLE



TEMPERATURE RATING

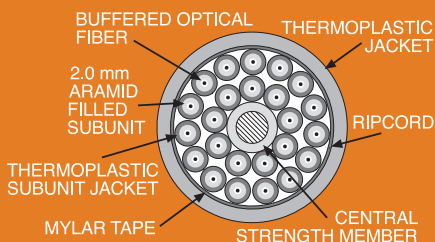
OPERATION	-20°C to +75°C
STORAGE	-40°C to +85°C
INSTALLATION	-20°C to +75°C

Sample Part Number: HDRO12XB3010/25



AT A GLANCE

- ▶ 2-48 Fibers – Riser, 2-36 Fibers – Plenum
- ▶ Rugged construction for harsh environments
- ▶ Tape wrapped dry core



Berk-Tek's **HEAVY DUTY BREAKOUT** cables are designed for installation in horizontal, industrial and other harsh environments where additional strength and fiber protection is required. Heavy Duty Breakout cables incorporate 900 μm tight buffered single-fiber aramid-filled subunits. The standard subunit diameter is 2.0 mm. Additional subunit diameters, including 1.6 mm and 2.5 mm are available.

FEATURES

- ▶ Multimode, Single-mode, and GIGAlite™ fibers
- ▶ Available with new bend-insensitive single-mode fibers
- ▶ High tensile strength, crush resistant
- ▶ All-dielectric, aluminum or steel interlock armored designs available
- ▶ Water-blocked and harsh environment designs available

- ▶ Steel or aluminum interlock armored cables available
- ▶ LSZH riser version available

BENEFITS

- ▶ High tensile strength provides for greater pulling distances
- ▶ Ease of installation
- ▶ Broad design selection allows for mix and match of fiber components to specific networking applications
- ▶ Low cable plant maintenance
- ▶ Armor option adds crush resistance and protection from rodent attacks

FLAME RATING

OFNR/FT-4
OFNP/FT-6

STANDARDS

International ISO/IEC 11801
European EN 50173
National Telcordia GR-409
ANSI/TIA-568-C.3

CONSTRUCTION

Each cable utilizes individual subunits containing a single 900 μm tight buffered fiber, surrounded by aramid yarns. Cable design accommodates from 2 to 36 fibers (plenum) or 2 to 48 fibers (riser).

- ▶ Each fiber in an individual compact, numbered, aramid-filled subunit
- ▶ Tape wrapped dry core
- ▶ Colored high-strength ripcord

APPLICATIONS

IEEE 802.3 10GBASE-SR	100 Gb/s
IEEE 802.3 40GBASE-SR	40 Gb/s
IEEE 802.3 10GBASE-X	10 Gb/s
IEEE 802.3 1000BASE-SX/LX	1 Gb/s
IEEE 802.3 10BASE-F	10 Mb/s
IEEE 802.3 FOIRL	10 Mb/s
FDDI	100 Mb/s
ATM	155 Mb/s
	622 Mb/s
	1.2/2.4 Gb/s
Fibre Channel FC-PH	1.062 Gb/s

RISER RATED TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER PREFIX	DIMENSIONS		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	HDRO02	0.276	7.0	32	48	4.1	10.5	2.8	7.0	150	660	45	198
4	HDRO04	0.276	7.0	34	50	4.1	10.5	2.8	7.0	150	660	45	198
6	HDRO06	0.325	8.3	48	72	4.9	12.4	3.3	8.3	150	660	45	198
12	HDRO12	0.480	12.2	102	151	7.2	18.3	4.8	12.2	300	1320	90	396
24	HDRO24	0.564	14.3	144	214	8.5	21.5	5.6	14.3	600	2640	180	792
36	HDRO36	0.649	16.5	177	264	9.7	24.7	6.5	16.5	1000	4445	300	1584
48	HDRO48	0.804	20.4	271	403	12.1	30.6	8.0	20.4	1000	4445	300	1584

PLENUM RATED TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER PREFIX	DIMENSIONS		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	HDPO02	0.256	6.5	33	49	3.8	9.8	2.6	6.5	150	660	45	198
4	HDPO04	0.256	6.5	35	53	3.8	9.8	2.6	6.5	150	660	45	198
6	HDPO06	0.317	8.1	56	83	4.8	12.1	3.2	8.1	150	660	45	198
12	HDPO12	0.472	12.0	124	185	7.1	18.0	4.7	12.0	300	1320	90	396
24	HDPO24	0.556	14.1	164	245	8.3	21.2	5.6	14.1	600	2640	180	792
36	HDPO36	0.641	16.3	205	305	9.6	24.4	6.4	16.3	1000	4448	300	1320

TECHNICAL DATA

FIBER TYPE	PART NUMBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz*km)	DISTANCE (meters)	
ENHANCED SINGLE-MODE					1 GbE	10 GbE
Standard for Tight Buffer	AB0707	1310/1550	0.7/0.7	N/A	≥ 5000 @ 1310 nm	≥ 10,000
MULTIMODE					1 GbE	10 GbE
62.5/125 μm - Standard	CB3510/25	850/1300	3.5/1.0	200/500	300/600	36/300
50/125 μm - GIGAlite	LB3010/75	850/1300	3.0/1.0	950/500	750/600	150/300
50/125 μm - GIGAlite-10	EB3010/25	850/1300	3.0/1.0	2000/500	1000/600	300/300
50/125 μm - GIGAlite-10XB	XB3010/X5	850/1300	3.0/1.0	4900/500	1210/600	600/300

For fiber details, refer to pages 56 to 57.

Berk-Tek's **CL3R-OF** incorporate high bandwidth optical fibers with insulated stranded copper power conductors. These composite cables enable delivery of high bandwidth optical performance to remote devices such as security cameras, access or monitoring devices. Power for these devices is provided via integral copper conductors.

CL3R-OF

INDOOR/OUTDOOR
TIGHT BUFFER &
LOOSE TUBE OPTIONS
FIBER OPTIC CABLE

FEATURES

- ▶ Available with up to fourteen 900 micron tight buffer fibers or twenty-four 250 micron loose buffer fibers
- ▶ Each cable can accommodate up to six stranded THWN conductors in 12/14/16/18 or 20 AWG
- ▶ Wet rated for 75°C
- ▶ Dry water-blocking technology
- ▶ CL3R-OF and PLTC-OF rated

BENEFITS

- ▶ Superior composite cable design combines optical fiber bandwidth with power for IP cameras or media converter via power conductors
- ▶ Immune to EMI/RFI
- ▶ Conductors enable device powering at distances up to 6000 feet
- ▶ PVDF jackets, and steel and aluminum interlock armor available

CONSTRUCTION

A wide variety of constructions are available in this family. Multiple THWN conductors are cabled together with a tight buffer construction (ICR or PDR) or with loose tube constructions (LTR or OPR). The outer PVC jacket is suitable for outdoor installations including trays and ducts.

STANDARDS

International	ISO/IEC 11801
European	EN 50173
North American	UL 13 Telcordia GR-490 ANSI/ICEA S-104-696

APPLICATIONS

IEEE 802.3 100GBASE-SR	100 Gb/s
IEEE 802.3 40GBASE-SR	40 Gb/s
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
Fibre Channel FC-PH	1.062 Gb/s



TECHNICAL DATA — PHYSICAL

PART NUMBER	#FIBERS	CONDUCTOR SIZE	#CONDUCTORS	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. DISTANCE			
				in.	mm	lb./kft.	kg/km	install		long term		PoE			
HDR002-002X18AWG	2	18 AWG	2	0.300	7.6	49	72	4.5	11.4	3.0	7.6	1000	304	650	198
HDR002-002X12AWG	2	12 AWG	2	0.360	9.1	93	138	5.4	13.7	3.6	9.1	3850	1173	2500	762
LTRC6B012-002X18AWG	12	18 AWG	2	0.319	8.1	49	73	4.8	12.1	3.2	8.1	1000	304	650	198
LTRC012-002X12AWG	12	12 AWG	2	0.371	9.4	87	129	5.6	14.1	3.7	9.4	3850	1173	2500	762
OPRC6B012-002X18AWG	12	18 AWG	2	0.319	8.1	51	76	4.8	12.1	3.2	8.1	1000	304	650	198
OPRC012-002X12AWG	12	12 AWG	2	0.371	9.4	88	131	5.6	14.1	3.7	9.4	3850	1173	2500	762

TECHNICAL DATA — ESTIMATED DISTANCE CAPABILITIES

CAMERA TYPE	V SUPPLY	V_MIN_IN CAMERA	CURRENT (A)	LENGTH (FT.)				
				12 AWG	14 AWG	16 AWG	18 AWG	20 AWG
B/W CCTV Camera, 12V	12	11.5	0.12	1041	655	411	259	172
B/W CCTV Camera, 24V	24	21	0.12	6248	3928	2467	1556	1030
COLOR Video Camera, 12V	12	11.5	0.30	417	262	164	104	69
COLOR Video Camera, 24V	24	21	0.30	2499	1571	987	622	412
PAN/TILT/ZOOM Camera, 24V	24	21	1.00	750	471	296	187	124

TECHNICAL DATA

FIBER TYPE	PART NUMBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz*km)	DISTANCE (meters)	
ENHANCED SINGLE-MODE					1 GbE	10 GbE
Standard for Tight Buffer	AB0707	1310/1550	0.7/0.7	N/A	≥ 5000 @ 1310 nm	≥ 10,000
MULTIMODE					1 GbE	10 GbE
62.5/125 μm - Standard	CB3510/25	850/1300	3.5/1.0	200/500	300/600	36/300
50/125 μm - GIGAlite™	LB3010/75	850/1300	3.0/1.0	950/500	750/600	150/300
50/125 μm - GIGAlite-10	EB3010/25	850/1300	3.0/1.0	2000/500	1000/600	300/300
50/125 μm - GIGAlite-10XB	XB3010/X5	850/1300	3.0/1.0	4900/500	1210/600	600/300

For fiber details, refer to pages 56 to 57.

TEMPERATURE RATING

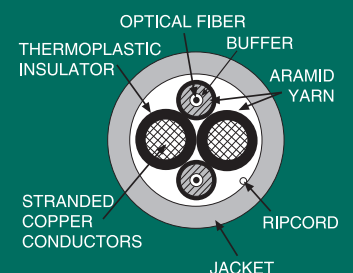
	LTRC & OPRC	HDR0
OPERATION	-40°C to +75°C	-40°C to +85°C
STORAGE	-60°C to +85°C	-40°C to +85°C
INSTALLATION	-20°C to +60°C	-10°C to +70°C

Sample Part Number: HDR002CB3510/25-002X12AWG



AT A GLANCE

- ▶ Security camera cable
- ▶ Multiple fibers
- ▶ Indoor/outdoor
- ▶ THWN conductors



ADVENTUM®

INDOOR/OUTDOOR
LOOSE TUBE
FIBER OPTIC CABLE



TEMPERATURE RATING

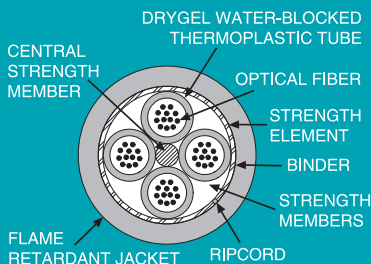
OPERATION	-40°C to +75°C
STORAGE	-60°C to +85°C
INSTALLATION	-20°C to +60°C

Sample Part Number: LTR12B048EB3010/25



AT A GLANCE

- ▶ Indoor/Outdoor
- ▶ Up to 432 fibers
- ▶ Plenum, riser or zero-halogen
- ▶ Totally dry construction



ADVENTUM® cables are designed to be used in indoor/outdoor and riser- and plenum-rated environments. This cable design affords the installer the ability to place cable anywhere in a network, bypassing the traditional transition points required in most installations, saving significant cost over traditional OSP cables. Adventum utilizes Berk-Tek's unique DryGel water-blocking system and is available with optional interlocking armor in riser or plenum rating.

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 with no transition points
- ▶ Cable core and buffer tubes use DryGel water-blocking system
- ▶ DryGel blocked, color-coded loose tubes containing up to 12, 250 μ m, individually colored fibers
- ▶ Interlocking armor designs available

BENEFITS

- ▶ No transition point required, available in riser and plenum rated
- ▶ Greatly reduced installation time and cost because there is no cleaning of gels required for installation
- ▶ System grounding requirements are eliminated (for non-armored versions)

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

FLAME RATING

OFNR/FT-4
OFNP/FT-6

STANDARDS

International	ISO/IEC 11801
European	EN 50173
North American	Telcordia GR-409 ICEA S-104-696 & ANSI/ICEA S-87-640

APPLICATIONS

IEEE 802.3 100GBASE-SR	100 Gb/s
IEEE 802.3 40GBASE-SR	40 Gb/s
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-PH	1.062 Gb/s

RISER RATED TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER 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
6	LTR006	0.255	6.5	29	44	3.8	9.7	2.6	6.5	300	1335	90	400
12	LTR012	0.255	6.5	30	44	3.8	9.7	2.6	6.5	300	1335	90	400
24*	LTR0X024	.245 x .510	6.2 x 12.9	51	76	7.7	19.4	5.1	13.0	300	1335	90	400
24	LTR12B024	0.396	10.1	59	88	5.9	15.1	4.0	10.1	300	1335	90	400
48	LTR12B048	0.396	10.1	60	90	5.9	15.1	4.0	10.1	300	1335	90	400
72	LTR12B072	0.467	11.9	81	121	7.0	17.8	4.7	11.9	600	2670	200	890
144	LTR12B144	0.696	17.7	178	265	10.7	27.2	7.2	18.2	1000	4448	300	1335
432	LTR12B432	0.953	24.2	301	447	14.3	36.3	9.5	24.2	1000	4448	300	1335

PLENUM RATED TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER 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
6	LTP006	0.260	6.6	30	45	3.9	9.9	2.6	6.6	300	1335	90	400
12	LTP012	0.260	6.6	31	46	3.9	9.9	2.6	6.6	300	1335	90	400
24*	LTP0X024	.245 x .510	6.2 x 12.9	58	87	7.7	19.4	5.1	13.0	300	1335	90	400
24	LTP12B024	0.370	9.4	55	82	5.6	14.1	3.7	9.4	300	1335	90	400
48	LTP12B048	0.370	9.4	56	83	5.6	14.1	3.7	9.4	300	1335	90	400
72	LTP12B072	0.460	11.7	80	119	6.9	17.5	4.6	11.7	600	2670	200	890
144	LTP12B144	0.670	17.0	212	315	10.1	25.5	6.7	17.0	1000	4448	300	1335
432	LTP12B432	0.94	23.9	362	539	14.1	35.8	9.4	23.9	1000	4448	300	1335

TECHNICAL DATA

FIBER TYPE	PART NUMBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz•km)	DISTANCE (meters)	
ENHANCED SINGLE-MODE					1 GbE	10 GbE
Standard for Loose Tube	AB0403	1310/1550	0.4/0.3	N/A	≥ 5000 @ 1310 nm	$\geq 10,000$
MULTIMODE					1 GbE	10 GbE
62.5/125 μ m - Standard	CB3510/25	850/1300	3.5/1.0	200/500	300/600	36/300
50/125 μ m - GIGAlite™	LB3010/75	850/1300	3.0/1.0	950/500	750/600	150/300
50/125 μ m - GIGAlite-10	EB3010/25	850/1300	3.0/1.0	2000/500	1000/600	300/300
50/125 μ m - GIGAlite-10XB	XB3010/X5	850/1300	3.0/1.0	4900/500	1210/600	600/300

For fiber details, refer to pages 56 to 57. Break-out kit needed for connectorization.
*Standard design for 24 fibers utilizes a Dual-UniLite™ construction.

HIGH DENSITY DISTRIBUTION CABLE (ACP) is a compact, indoor-only loose tube cable with the strength to provide superior patching capabilities over the lifespan of your installation. By including aramid within the 3.0 mm tube containing the optical fibers, this design delivers both a compact cross-section and superior strain relief capabilities. With fiber counts of up to 432, ACP is an outstanding choice to support the parallel transmission requirements of 40/100G Ethernet.

HIGH DENSITY DISTRIBUTION CABLE

INDOOR
LOOSE TUBE
FIBER OPTIC CABLE

FEATURES

- ▶ Designed to support Gigabit Ethernet, Gigabit ATM, Fibre Channel and other high-speed applications
- ▶ Plenum rating enables installation in plenum spaces
- ▶ All-dielectric design

BENEFITS

- ▶ Compact, plenum-rated, flexible loose tube design of all-dielectric construction allows for installation in small interior spaces
- ▶ Aramid yarn provides stronger terminations

CONSTRUCTION

Color coded loose tubes containing up to 12, 250 μm , individually colored fibers and aramid yarn.

FLAME RATING

OFNP/FT-6

STANDARDS

International ISO/IEC 11801
European EN 50173
National Telcordia GR-409
ANSI/ICEA S-83-596
ANSI/TIA-568-C.3

APPLICATIONS

IEEE 802.3 100GBASE-SR 100 Gb/s
IEEE 802.3 40GBASE-SR 40 Gb/s
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-PH 1.062 Gb/s

TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER 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
6	ACP006	0.118	3.0	5	8	1.8	4.5	1.2	3	60	267	18	80
12	ACP012	0.118	3.0	6	8	1.8	4.5	1.2	3	60	267	18	80
24	ACP12B024	0.313	8.0	48	72	4.7	11.9	3.1	8.0	600	2670	200	890
36	ACP12B036	0.341	8.7	54	80	5.1	13.0	3.4	8.7	600	2670	200	890
48	ACP12B048	0.370	9.4	58	86	5.6	14.1	3.7	9.4	300	1335	90	400
72	ACP12B072	0.460	11.7	86	128	6.9	17.5	4.6	11.7	600	2670	200	890

TECHNICAL DATA

FIBER TYPE	PART NUMBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz*km)	DISTANCE (meters)	
ENHANCED SINGLE-MODE					1 GbE	10 GbE
Standard for Loose Tube	AB0403	1310/1550	0.4/0.3	N/A	≥ 5000 @ 1310 nm	$\geq 10,000$
MULTIMODE					1 GbE	10 GbE
62.5/125 μm - Standard	CB3510/25	850/1300	3.5/1.0	200/500	300/600	36/300
50/125 μm - GIGAlite™	LB3010/75	850/1300	3.0/1.0	950/500	750/600	150/300
50/125 μm - GIGAlite-10	EB3010/25	850/1300	3.0/1.0	2000/500	1000/600	300/300
50/125 μm - GIGAlite-10XB	XB3010/X5	850/1300	3.0/1.0	4900/500	1210/600	600/300

For fiber details, refer to pages 56 to 57. Break-out kit needed for connectorization.
*Standard design for 24 fibers utilizes a Dual-UniLite™ construction.

TEMPERATURE RATING

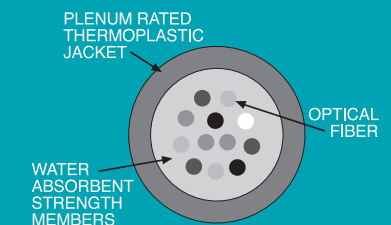
OPERATION	0°C to +75°C
STORAGE	-20°C to +85°C
INSTALLATION	0°C to +60°C

Sample Part Number: ACP012EB3010/25



AT A GLANCE

- ▶ Indoor only
- ▶ 2-432 fibers
- ▶ Ideal for patching applications due to extra strength at connector from aramid



OUTSIDE PLANT

LOOSE TUBE
FIBER OPTIC CABLE



TEMPERATURE RATING

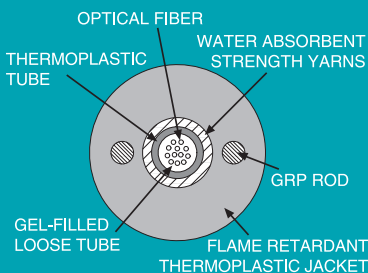
OPERATION	-40°C to +75°C
STORAGE	-60°C to +85°C
INSTALLATION	-30°C to +60°C

Sample Part Number: OPD012AB0403



AT A GLANCE

- ▶ Outdoor, duct, aerial or direct burial
- ▶ Up to 216 fibers
- ▶ Riser or low-smoke zero-halogen (LSZH) options
- ▶ Dry core with gel-filled tubes



Berk-Tek's **OUTSIDE PLANT** LOOSE TUBE fiber optic cables are designed for installation in harsh environments such as direct burial, aerial lashing, conduits and pathways that are subjected to wide temperature variations. The Outside Plant product line offers two to 216 fibers per cable. These cables are thoroughly tested and verified to Telcordia GR-20 and ICEA-640 standards for outside cabling systems. Berk-Tek's outdoor loose tube cables are available with multimode, single-mode and GIGAlite™ optical fiber.

FEATURES

- ▶ High tensile strength, crush-resistant and small-diameter design
- ▶ Single-mode, multimode and hybrid design options available
- ▶ Both all-dielectric and armored designs available
- ▶ Fully water-blocked core using dry water-blocking system
- ▶ Also available in riser-rated, low-smoke zero-halogen and armored designs

BENEFITS

- ▶ Provides for greater pulling distances, reducing installation time
- ▶ Broad design selection allows for mix and match of fiber components to specific networking applications
- ▶ System grounding problems eliminated
- ▶ Long-term reliability
- ▶ Low cable-plant maintenance, ease of installation
- ▶ Reduced network costs

CONSTRUCTION

Gel-filled tubes containing up to 12, 250 μm, individually colored fibers.

OUTDOOR CONSIDERATIONS

Berk-Tek recommends that loose tube cables be utilized in an outside plant installation environment. Loose tube cables are especially recommended if aerially lashed or if the interbuilding conduit system is above the frost line and likely to fill with water.

STANDARDS

International	ISO/IEC 11801
European	EN 50173
North American	Telcordia GR-20 ANSI/ICEA S-87-640

APPLICATIONS

IEEE 802.3 100GBASE-SR	100 Gb/s
IEEE 802.3 40GBASE-SR	40 Gb/s
IEEE 802.3 10GBASE-X	10 Gb/s
IEEE 802.3 1000BASE-SX/LX	1000 Mb/s
IEEE 802.3 10BASE-F	10 Mb/s
IEEE 802.3 FOIRL	10 Mb/s
FDDI	100 Mb/s
ATM	155 Mb/s
	622 Mb/s
	1.2/2.4 Gb/s
Fibre Channel FC-PH	1.062 Gb/s

TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER 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	OPD002	0.400	10.2	74	110	6.0	15.2	4.0	10.2	450	2002	135	601
4	OPD004	0.400	10.2	74	110	6.0	15.2	4.0	10.2	450	2002	135	601
6	OPD006	0.400	10.2	74	110	6.0	15.2	4.0	10.2	450	2002	135	601
8	OPD008	0.400	10.2	74	110	6.0	15.2	4.0	10.2	450	2002	135	601
12	OPD012	0.400	10.2	74	110	6.0	15.2	4.0	10.2	450	2002	135	601
24	OPDD12B024	0.461	11.7	90	134	6.9	17.6	4.6	11.7	600	2670	180	800
36	OPDD12B036	0.461	11.7	92	136	6.9	17.6	4.6	11.7	600	2670	180	800
48	OPDD12B048	0.461	11.7	93	138	6.9	17.6	4.6	11.7	600	2670	180	800
72	OPDD12B072	0.500	12.7	112	166	7.5	19.1	5.0	12.7	600	2670	180	800
96	OPDD12B096	0.575	14.6	148	221	8.6	21.9	5.7	14.6	800	3560	240	1068
144	OPDD12B144	0.730	18.5	237	353	10.7	27.8	7.3	18.5	1000	4445	300	1335
216	OPDD12B216	0.740	18.8	178	265	11.1	28.2	7.4	18.8	1000	4445	300	1335

TECHNICAL DATA

FIBER TYPE	PART NUMBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz*km)	DISTANCE (meters)	
ENHANCED SINGLE-MODE					1 GbE	10 GbE
Standard for Loose Tube	AB0403	1310/1550	0.4/0.3	N/A	≥ 5000 @ 1310 nm	≥ 10,000
MULTIMODE					1 GbE	10 GbE
62.5/125 μm - Standard	CB3510/25	850/1300	3.5/1.0	200/500	300/600	36/300
50/125 μm - GIGAlite	LB3010/75	850/1300	3.0/1.0	950/500	750/600	150/300
50/125 μm - GIGAlite-10	EB3010/25	850/1300	3.0/1.0	2000/500	1000/600	300/300
50/125 μm - GIGAlite-10XB	XB3010/X5	850/1300	3.0/1.0	4900/500	1210/600	600/300

For complete fiber type details, refer to pages 56 to 57. Break-out kit needed for connectorization.

Berk-Tek's **DIELECTRIC ARMOR RODENT RESISTANT** cable is designed for indoor/outdoor plant deployments where potential for cable damage from rodents is high.

FEATURES

- ▶ High tensile strength, crush-resistant and small-diameter design
- ▶ Interlocking armor available
- ▶ Fully water-blocked core using a dry water-blocking system
- ▶ Available with new bend-insensitive single-mode fibers
- ▶ All-dielectric, indoor/outdoor rodent resistant cable
- ▶ Glass reinforced plastic (GRP) dielectric armor between dual jackets

BENEFITS

- ▶ Enables installations to go directly from outside plant through riser shafts with no transition point requirement
- ▶ Greater pulling distances possible due to high tensile strength
- ▶ Low cable plant maintenance, ease of installation
- ▶ Reduced cable diameter, flexible, with easy access to buffer tube and fibers

CONSTRUCTION

This unique cable design incorporates a dielectric armor shield composed of numerous glass reinforced plastic rods (GRP) that run longitudinally along the length of the cable. This dielectric armor layer is sandwiched between two riser-rated jackets.

FLAME RATING

OFNR/FT-4

STANDARDS

North American ANSI/ICEA S-87-640
ANSI/ICEA S-104-696
European EN 50173
International ISO/IEC 11801

APPLICATIONS

IEEE 802.3 100GBASE-SR 100 Gb/s
IEEE 802.3 40GBASE-SR 40 Gb/s
10GBASE-SR/SW 10 Gb/s
10GBASE-LX4 10 Gb/s
IEEE 802.3 100BASE-SX/FX 1 Gb/s
IEEE 802.3 1000BASE-SX/LX 1000 Mb/s
IEEE 802.3 10BASE-FL 10 Mb/s
ATM 155 Mb/s
622 Mb/s
Fibre Channel FC-PH 1.062 Gb/s
2.125 Gb/s

RISER-RATED TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER 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
6 & 12	OPRFG	0.399	10.1	72	107	6.0	15.2	4.0	10.2	800	3559	240	1068

TECHNICAL DATA

FIBER TYPE	PART NUMBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz*km)	DISTANCE (meters)	
ENHANCED SINGLE-MODE					1 GbE	10 GbE
Standard for Loose Tube	AB0403	1310/1550	0.4/0.3	N/A	≥ 5000 @ 1310 nm	≥ 10,000
MULTIMODE					1 GbE	10 GbE
62.5/125 μm - Standard	CB3510/25	850/1300	3.5/1.0	200/500	300/600	36/300
50/125 μm - GIGAlite™	LB3010/75	850/1300	3.0/1.0	950/500	750/600	150/300
50/125 μm - GIGAlite-10	EB3010/25	850/1300	3.0/1.0	2000/500	1000/600	300/300
50/125 μm - GIGAlite-10XB	XB3010/X5	850/1300	3.0/1.0	4900/500	1210/600	600/300

For complete fiber type details, refer to pages 56 to 57. Break-out kit needed for connectorization.

RODENT RESISTANT CABLE

INDOOR/OUTDOOR
LOOSE TUBE
FIBER OPTIC CABLE



TEMPERATURE RATING

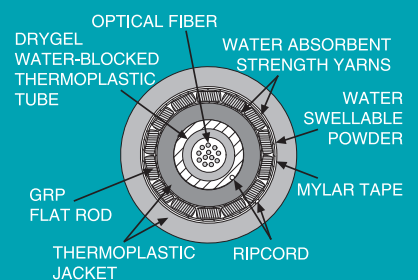
OPERATION	-40°C to +75°C
STORAGE	-40°C to +85°C
INSTALLATION	-20°C to +60°C

Sample Part Number: DAR012CB3510/25



AT A GLANCE

- ▶ All-dielectric
- ▶ Rodent resistant
- ▶ Gel-filled loose tube cable
- ▶ Riser-rated



DROP CABLE OFNR (OFCR)

INDOOR/OUTDOOR
LOOSE TUBE
FIBER OPTIC CABLE



TEMPERATURE RATING

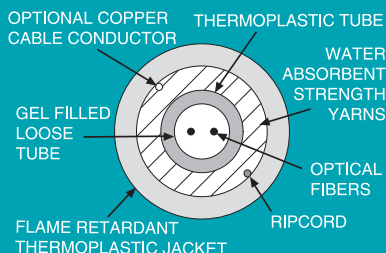
OPERATION	-40°C to +75°C
STORAGE	-40°C to +85°C
INSTALLATION	-20°C to +60°C

Sample Part Number: OPRFT002AB0403



AT A GLANCE

- ▶ FTTx drop cable
- ▶ Campus backbone, inside/outside plant
- ▶ 2-12 fibers
- ▶ Riser rated
- ▶ Optional tracer wire



Berk-Tek's Indoor/Outdoor, Riser-Rated, **OPTICAL DROP CABLE** is designed especially for Last Mile, MDU, MTU and FTTx applications. An optional 26 AWG tracer wire is available for ease of cable location. Designed for aerial-lashed installations, direct burial or in conduits and pathways that are subject to wide temperature variations.

FEATURES

- ▶ Compact, water-blocked, riser-rated, flexible, loose tube design with the option for an integral tracer wire
- ▶ High tensile strength, crush-resistant and small-diameter design
- ▶ Single-mode or multimode design options available
- ▶ All-dielectric design (OFNR)
- ▶ Gel-filled buffer tube and water-blocked core using a dry water-blocking system
- ▶ Optional 26 AWG tracer wire (OFCR)

BENEFITS

- ▶ Enables installations to go directly from outside plant to riser shaft with no transition point requirement
- ▶ Easy cable location with optional tracer wire
- ▶ Provides for greater pulling distances, reducing installation time
- ▶ Long-term reliability
- ▶ Low cable-plant maintenance, ease-of-installation
- ▶ Reduced cable diameter, flexible, with easy access to buffer tube and fibers
- ▶ Reduced network costs

CONSTRUCTION

Each gel-filled buffer tube contains 2-12, 250 µm, individually colored fibers.

FLAME RATING

OFNR/FT-4

STANDARDS

International	ISO/IEC 11801
European	EN 50173
North American	ANSI/TIA/EIA-568-B.3 Telcordia GR-20 Telcordia GR-409 ANSI/ICEA S-87-640 ANSI/ICEA S-83-596

APPLICATIONS

IEEE 802.3 100GBASE-SR	100 Gb/s
IEEE 802.3 40GBASE-SR	40 Gb/s
10GBASE-SR/SW	10 Gb/s
10GBASE-LX4	10 Gb/s
IEEE 802.3 100BASE-SX/FX	1 Gb/s
IEEE 802.3 1000BASE-SX/LX	1000 Mb/s
IEEE 802.3 10BASE-FL	10 Mb/s
ATM	155 Mb/s 622 Mb/s
Fibre Channel FC-PH	1.062 Gb/s 2.125 Gb/s

RISER-RATED TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER 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
2-12	OPRFOxx (all-dielectric)	0.250	6.4	26	39	3.8	9.5	2.5	6.4	300	1335	90	400
2-12	OPRFT0xx (with tracer wire)	0.250	6.4	28	42	3.8	9.5	2.5	6.4	300	1335	90	400

TECHNICAL DATA

FIBER TYPE	PART NUMBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz*km)	DISTANCE (meters)	
ENHANCED SINGLE-MODE					1 GbE	10 GbE
Standard for Loose Tube	AB0403	1310/1550	0.4/0.3	N/A	≥ 5000 @ 1310 nm	≥ 10,000
MULTIMODE					1 GbE	10 GbE
62.5/125 µm - Standard	CB3510/25	850/1300	3.5/1.0	200/500	300/600	36/300
50/125 µm - GIGAlite™	LB3010/75	850/1300	3.0/1.0	950/500	750/600	150/300
50/125 µm - GIGAlite-10	EB3010/25	850/1300	3.0/1.0	2000/500	1000/600	300/300
50/125 µm - GIGAlite-10XB	XB3010/X5	850/1300	3.0/1.0	4900/500	1210/600	600/300

For fiber details, refer to pages 56 to 57. Break-out kit needed for connectorization.

Berk-Tek's Outside Plant Aerial Self Supporting **OPTICAL FLAT DROP CABLE** is designed for subscriber drop applications where low-cost and easy-access solutions are demanded. Fully compatible with current FTTx architectures for providing access to business and residential customers in the last portion of all-optical networks.

FLAT DROP CABLE

OUTSIDE PLANT
LOOSE TUBE
FIBER OPTIC CABLE

FEATURES

- ▶ High tensile strength, crush-resistant and small-diameter design
- ▶ Single-mode or multimode design options available
- ▶ All-dielectric design
- ▶ Fully water-blocked core using a dry water-blocking system
- ▶ No grounding/bonding requirements

BENEFITS

- ▶ Compact, water-blocked, loose tube design is ruggedly designed for outside plant installations
- ▶ Easy-to-use and access
- ▶ Low cost
- ▶ Rapid and reliable subscriber provisioning through pre-terminated assemblies available with your choice of connectors
- ▶ Long-term reliability
- ▶ Low cable-plant maintenance, ease of installation
- ▶ Reduced cable diameter, flexible, with easy access to buffer tube and fibers

CONSTRUCTION

Each gel-filled buffer tube contains 1-12, 250 μm, individually colored fibers.

STANDARDS

European	EN 50173
North American	ANSI/TIA/EIA-568-B.3 Telcordia GR-20 ANSI/ICEA S-87-640

APPLICATIONS

IEEE 802.3 100GBASE-SR	100 Gb/s
IEEE 802.3 40GBASE-SR	40 Gb/s
10GBASE-SR/SW	10 Gb/s
10GBASE-LX4	10 Gb/s
IEEE 802.3 100BASE-SX/FX	1 Gb/s
IEEE 802.3 1000BASE-SX/LX	1000 Mb/s
IEEE 802.3 10BASE-FL	10 Mb/s
ATM	155 Mb/s 622 Mb/s
Fibre Channel FC-PH	1.062 Gb/s 2.125 Gb/s

TECHNICAL DATA — PHYSICAL

FIBERS	PART NUMBER PREFIX	DIMENSIONS		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
1-12	OPFD0xx	.325 x .177	8.2 x 4.5	21	32	6	15	3.0	7.5	300	1335	150	667

NESC ENVIRONMENTAL LOADING

PARAMETER	NESC HEAVY LOADING	NESC MEDIUM LOADING	NESC LIGHT LOADING
Span Length ft. (m)	150 (45.7)	255 (77.7)	435 (132.6)
% Sag (@ 1 % Installation Sag)	4.6	4.4	4.1

TECHNICAL DATA

FIBER TYPE	PART NUMBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz*km)	DISTANCE (meters)	
ENHANCED SINGLE-MODE					1 GbE	10 GbE
Standard for Loose Tube	AB0403	1310/1550	0.4/0.3	N/A	≥ 5000 @ 1310 nm	≥ 10,000
MULTIMODE					1 GbE	10 GbE
62.5/125 μm - Standard	CB3510/25	850/1300	3.5/1.0	200/500	300/600	36/300
50/125 μm - GIGAlite™	LB3010/75	850/1300	3.0/1.0	950/500	750/600	150/300
50/125 μm - GIGAlite-10	EB3010/25	850/1300	3.0/1.0	2000/500	1000/600	300/300
50/125 μm - GIGAlite-10XB	XB3010/X5	850/1300	3.0/1.0	4900/500	1210/600	600/300

For fiber details, refer to pages 56 to 57. Break-out kit needed for connectorization.



TEMPERATURE RATING

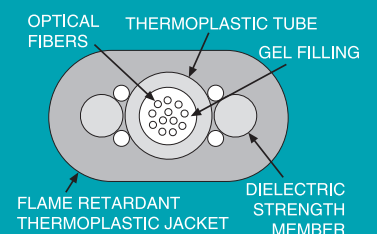
OPERATION	-40°C to +75°C
STORAGE	-40°C to +85°C
INSTALLATION	-30°C to +60°C

Sample Part Number: OPFD006CB3510/25



AT A GLANCE

- ▶ FTTx, MDU/MTU
- ▶ 1-12 fibers
- ▶ Low-cost, easy-access solution



ARMOR-TEK™

INTERLOCK ARMOR
FIBER OPTIC CABLE



TEMPERATURE RATING

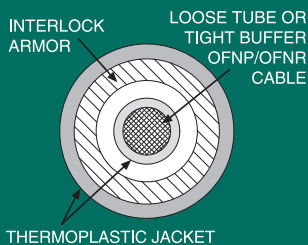
	PDRK	PDPK	LTRK & LTPK
OPERATION	-40°C to +75°C	-20°C to +75°C	-40°C to +75°C
STORAGE	-40°C to +85°C	-40°C to +85°C	-60°C to +85°C
INSTALLATION	-20°C to +75°C	0°C to +75°C	-20°C to +60°C

Sample Part Number: PDPK012LB3010/75



AT A GLANCE

- ▶ Replaces innerduct
- ▶ Up to 432 fibers
- ▶ Plenum, riser or low-smoke zero-halogen (LSZH)
- ▶ Tight buffer and loose tube options



Berk-Tek®
A NEXANS COMPANY

Berk-Tek's **ARMOR-TEK™ INTERLOCK ARMOR** fiber cables feature a tight-buffered or loose tube fiber cable and aluminum or steel spirally wrapped armor, covered with a plenum or riser-rated jacket. Armor-Tek fiber cables can be used in any of the following installation environments: indoor, 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 fill ratio, for areas where extra physical protection is needed, where network security is a concern, in a fast track installation, between buildings, direct burial or in trays.

FEATURES

- ▶ Jacketed armor that remains flexible due to the spiral wrap armoring process
- ▶ Easy one-pull installation into any environment
- ▶ Available in aluminum or steel interlock armor
- ▶ Compact outside diameters when compared to plenum innerduct or conduit
- ▶ Available in tight buffer or loose tube with 62.5 μm, 62.5 μm GIGAlite™, 50 μm GIGAlite and GIGAlite-10 multimode fibers, single-mode fiber and hybrid constructions
- ▶ Interlocking armor available without an overjacket

BENEFITS

- ▶ Aluminum interlock offers 10 to 13 times the crush resistance of a standard dielectric fiber cable (steel, 12 to 19 times)
- ▶ Eliminates the need for conduit or plenum innerduct
- ▶ Significant cost savings in both materials and labor—up to 25%
- ▶ Suitable for hazardous environments or difficult installations
- ▶ 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
- ▶ Rugged armoring materials provide additional security for your fiber backbone

APPLICATION NOTE

Armored cable installed in an outdoor environment should be bonded when passing into an indoor environment.

TECHNICAL DATA

FIBER TYPE	PART NUMBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz*km)	DISTANCE (meters)	
ENHANCED SINGLE-MODE					1 GbE	10 GbE
LT - Standard for Loose Tube	AB0403	1310/1550	0.4/0.3	N/A	≥ 5000 @ 1310 nm	≥ 10,000
PD - Standard for Tight Buffer	AB0707	1310/1550	0.7/0.7	N/A	≥ 5000 @ 1310 nm	≥ 10,000
MULTIMODE					1 GbE	10 GbE
62.5/125 μm - Standard	CB3510/25	850/1300	3.5/1.0	200/500	300/600	36/300
50/125 μm - GIGAlite	LB3010/75	850/1300	3.0/1.0	950/500	750/600	150/300
50/125 μm - GIGAlite-10	EB3010/25	850/1300	3.0/1.0	2000/500	1000/600	300/300
50/125 μm - GIGAlite-10XB	XB3010/X5	850/1300	3.0/1.0	4900/500	1210/600	600/300

For complete fiber type details, refer to pages 56 to 57.

FLAME RATING

Plenum—OFCP
Riser—OFRC
LSZH—OFRC-LS

STANDARDS

International ISO/IEC 11801
European EN 50173
North American ANSI/TIA/EIA-568-B.3
ANSI/ICEA S-87-640
ANSI/ICEA S-83-596
Telcordia GR-409

APPLICATIONS

IEEE 802.3 100GBASE-SR	100 Gb/s
IEEE 802.3 40GBASE-SR	40 Gb/s
IEEE 802.3 10GBASE-X	10 Gb/s
IEEE 802.3 1000BASE-SX/LX	1 Gb/s
IEEE 802.3 100BASE-FX/SX	100 Mb/s
IEEE 802.3 10BASE-F (or FL)	10 Mb/s
IEEE 802.3 FOIRL	10 Mb/s
ATM	155 Mb/s
	622 Mb/s
Fibre Channel FC-PH	1.062 Gb/s
	2.125 Gb/s

PREMISES DISTRIBUTION—TECHNICAL DATA

FIBERS	PART NUMBER 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	
PREMISES DISTRIBUTION PLENUM	6	PDPK006	0.495	12.6	78	116	7.4	18.9	5.0	12.6	150	667	45	200
	12	PDPK012	0.523	13.3	87	129	7.8	19.9	5.2	13.3	150	667	45	200
	18	PDPK018	0.584	14.8	111	166	8.8	22.3	5.8	14.8	150	667	45	200
	24	PDPK024	0.584	14.8	119	176	8.8	22.3	5.8	14.8	150	667	45	200
	36	PDPK12B036	0.821	20.9	233	347	12.3	31.3	8.2	20.9	600	2640	180	800
	48	PDPK12B048	0.921	23.4	274	408	13.8	35.1	9.2	23.4	600	2640	180	800
	72	PDPK12B072	0.974	24.7	361	537	14.6	37.1	9.7	24.7	600	2640	180	800
	96	PDPK12B096	1.225	31.1	503	749	18.4	46.7	12.3	31.1	600	2640	180	800
	120	PDPK12B120	1.225	31.1	492	732	18.4	46.7	12.3	31.1	1000	4445	300	1335
	144	PDPK12B144	1.225	31.1	508	756	18.4	46.7	12.3	31.1	1000	4445	300	1335
PREMISES DISTRIBUTION RISER	6	PDRK006	0.624	15.8	120	179	9.4	23.8	6.2	15.8	150	667	45	200
	12	PDRK012	0.624	15.8	126	188	9.4	23.8	6.2	15.8	150	667	45	200
	18	PDRK018	0.624	15.8	134	199	9.4	23.8	6.2	15.8	150	667	45	200
	24	PDRK024	0.690	17.5	166	248	10.4	26.3	6.9	17.5	150	667	45	200
	36	PDRK12B036	0.961	24.4	277	412	14.4	36.6	9.6	24.4	600	2670	180	800
	48	PDRK12B048	0.961	24.4	301	448	14.4	36.6	9.6	24.4	600	2670	180	800
	72	PDRK12B072	1.080	27.4	432	643	19.0	48.2	12.7	32.1	600	2670	180	800
	96	PDRK12B096	1.265	32.1	521	775	19.0	48.2	12.7	32.1	600	2670	180	800
	120	PDRK12B120	1.265	32.1	524	780	19.0	48.2	12.7	32.1	1000	4445	300	1335
	144	PDRK12B144	1.265	32.1	539	802	19.0	48.2	12.7	32.1	1000	4445	300	1335

ADVENTUM™ INDOOR/OUTDOOR LOOSE TUBE—TECHNICAL DATA

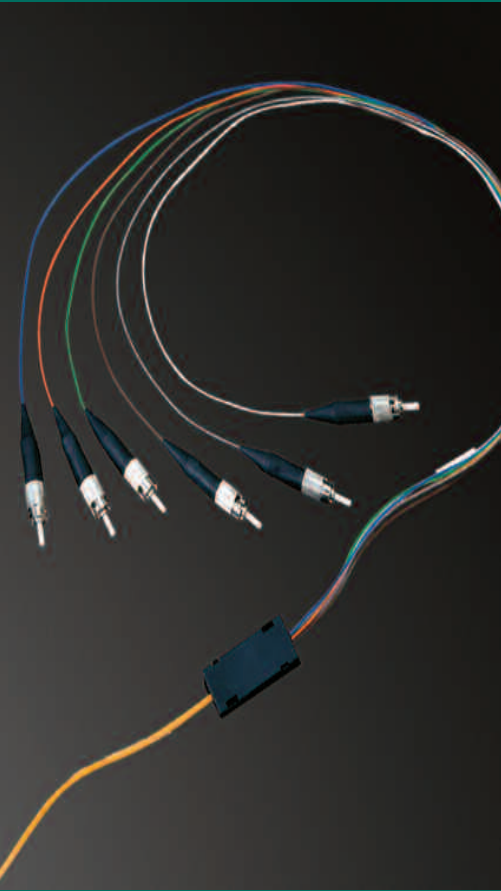
FIBERS	PART NUMBER PREFIX	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. LOADING				
		in.	mm	lb./kft.	kg/km	install		long term		install		long term		
						in.	cm	in.	cm	lb.	N	lb.	N	
ADVENTUM INDOOR/OUTDOOR PLENUM (Available up to 432 fibers)	6	LTPK006	0.620	15.7	136	202	9.3	23.6	6.2	15.7	300	1335	90	400
	8	LTPK008	0.620	15.7	136	202	9.3	23.6	6.2	15.7	300	1335	90	400
	12	LTPK012	0.620	15.7	136	202	9.3	23.6	6.2	15.7	300	1335	90	400
	18*	LTPK0X018	0.851	21.6	208	309	12.8	32.4	8.5	21.6	300	1335	90	400
	24*	LTPK0X024	0.851	21.6	208	310	12.8	32.4	8.5	21.6	300	1335	90	400
	24	LTPK12B024	0.730	18.5	184	274	11.0	27.8	7.3	18.5	600	2670	200	890
	36	LTPK12B036	0.730	18.5	184	274	11.0	27.8	7.3	18.5	600	2670	200	890
	48	LTPK12B048	0.730	18.5	185	275	11.0	27.8	7.3	18.5	600	2670	200	890
	60	LTPK12B060	0.774	19.7	220	327	11.6	29.5	7.7	19.7	600	2670	200	890
	72	LTPK12B072	0.774	19.7	220	327	11.6	29.5	7.7	19.7	600	2670	200	890
	84	LTPK12B084	0.851	21.6	228	339	12.8	32.4	8.5	21.6	600	2670	200	890
	96	LTPK12B096	0.851	21.6	247	368	12.8	32.4	8.5	21.6	600	2670	200	890
	108	LTPK12B108	0.951	24.2	281	418	14.3	36.2	9.5	24.2	600	2670	200	890
	120	LTPK12B120	0.951	24.2	304	452	14.3	36.2	9.5	24.2	600	2670	200	890
	132	LTPK12B132	1.004	25.5	332	494	15.1	38.3	10.0	25.5	600	2670	200	890
	144	LTPK12B144	1.004	25.5	359	535	15.1	38.3	10.0	25.5	1000	4448	300	1335
	216	LTPK12B216	1.004	25.5	331	493	15.1	38.3	10.0	25.5	1000	4448	300	1335
	ADVENTUM INDOOR/OUTDOOR RISER (Available up to 432 fibers)	6	LTRK006	0.636	16.2	138	205	9.5	24.2	6.4	16.2	300	1335	90
8		LTRK008	0.636	16.2	138	205	9.5	24.2	6.4	16.2	300	1335	90	400
12		LTRK012	0.636	16.2	138	205	9.5	24.2	6.4	16.2	300	1335	90	400
18*		LTRK0X018	0.865	22.0	202	301	13.0	33.0	8.7	22.0	300	1335	90	400
24*		LTRK0X024	0.865	22.0	202	301	13.0	33.0	8.7	22.0	300	1335	90	400
24		LTRK12B024	0.744	18.9	186	277	11.2	28.3	7.4	18.9	600	2670	200	890
36		LTRK12B036	0.744	18.9	187	278	11.2	28.3	7.4	18.9	600	2670	200	890
48		LTRK12B048	0.744	18.9	187	279	11.2	28.3	7.4	18.9	600	2670	200	890
60		LTRK12B060	0.865	22.0	232	346	13.0	33.0	8.7	22.0	600	2670	200	890
72		LTRK12B072	0.865	22.0	232	345	13.0	33.0	8.7	22.0	600	2670	200	890
84		LTRK12B084	0.865	22.0	243	361	13.0	33.0	8.7	22.0	600	2670	200	890
96		LTRK12B096	0.965	24.5	276	411	14.5	36.8	9.7	24.5	600	2670	200	890
108		LTRK12B108	0.965	24.5	292	435	14.5	36.8	9.7	24.5	600	2670	200	890
120		LTRK12B120	1.018	25.9	326	486	15.3	38.8	10.2	25.9	600	2670	200	890
132		LTRK12B132	1.018	25.9	348	518	15.3	38.8	10.2	25.9	600	2670	200	890
144		LTRK12B144	1.018	25.9	360	536	15.3	38.8	10.2	25.9	1000	4448	300	1335
216		LTRK12B216	1.018	25.9	350	521	15.3	38.8	10.2	25.9	1000	4448	300	1335

*Standard design for 18 - 24 fibers utilizes a Dual-UniLite™ construction. For fiber details, refer to pages 56 to 57.

Other cable types available with Armor-Tek armoring. Call Berk-Tek customer service for more information.

BREAK-OUT KIT

FIBER OPTIC CABLE
BUFFER TUBE
FURCATION KIT



AT A GLANCE

- ▶ 24" or 36" options
- ▶ Available with 6 or 12 tubes
- ▶ One kit needed for each end of a terminated tube

Berk-Tek's **BUFFER TUBE BREAK-OUT KITS** are specifically designed for the termination of 6-fiber and 12-fiber loose tube cables. These buffer tube kits provide the ultimate solution for those users who want to field-install connectors. The kits provide the most compact, easy-to-install, break-out solution requiring no additional hardware or space than that for terminating tight buffered cable. They have been designed to snap together without epoxy. Kits feature a 900 μm break-out assembly using TEFLON™ color-coded tubes to match the fiber color scheme. The Break-out Assembly is available in 6-fiber and 12-fiber units in lengths of 24 or 36 inches. These different lengths provide the installer the flexibility needed for a variety of hardware options.

FEATURES/BENEFITS

- ▶ Break-out tubing
- ▶ New snap-together unit eliminates need for epoxy
- ▶ Compact design
- ▶ Quick and easy-to-install
- ▶ Optimized for field termination of loose tube cables
- ▶ Terminates 2.4 mm and 3.0 mm buffer tubes
- ▶ Excellent fiber routing capabilities
- ▶ Bend radius protection designed into each unit

APPLICATIONS

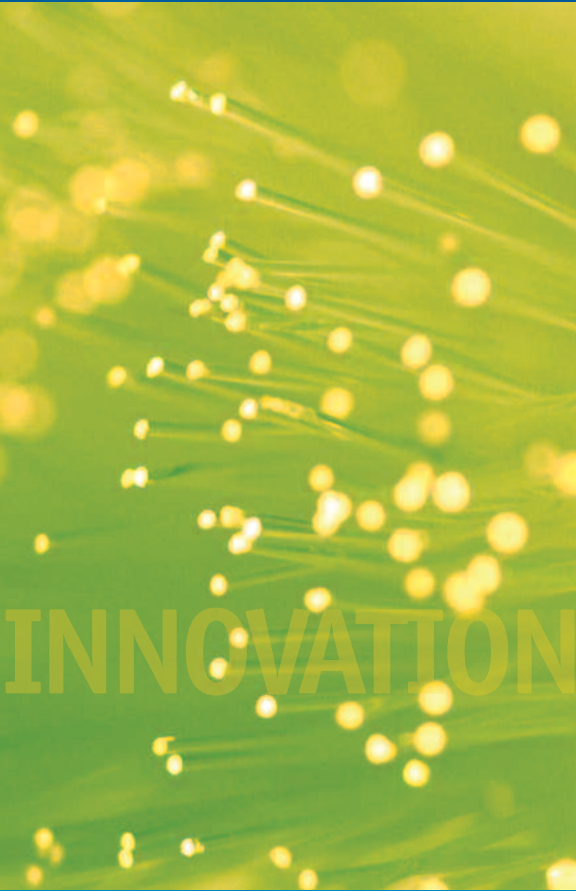
- ▶ Field termination of loose tube cables

BUFFER TUBE BREAK-OUT KITS

PART NUMBER	LENGTH OF TUBING	NUMBER OF BUFFER TUBES
10033624	24 inches	12
10033625	36 inches	12
10033626	24 inches	6
10033627	36 inches	6

NOTE: PRE-POLISHED CONNECTORS TERMINATED TO ALL DRY LOOSE TUBE CABLES

- ▶ Please follow procedures for use of adhesive when using factory pre-polished connectors. Procedures available at www.berktek.com or upon request at 1-800-BERKTEK (1-800-237-5835).



APPENDIX A: THE FASTEST ROUTE TO FIBER ACCURACY

Berk-Tek's Fiber Optic Cable part numbers are composed of two basic units, the Cable Prefix and the Fiber Suffix. Throughout this catalog fiber part number prefixes for each cable type are listed in the second column of the Technical Data tables. Fiber part number suffixes are located in column two of the fiber specification table. **To accurately build your fiber part number, simply select the correct prefix and suffix.** Below, you will find a more detailed explanation of our descriptive part numbering system.

Cable Prefixes are made up of the following three basic components: **Cable Type, Product Enhancements** and **Fiber Count**. Fiber Suffixes are selected from the Fiber Specification Data Table at the end of this document.

The four steps below illustrate the process of building an accurate fiber part number, using the following example:

- *Indoor/Outdoor plenum-rated cable with 48 fibers, laser optimized 50/125 μm for 10 Gb Ethernet at 300 meters*

STEP 1: SELECT THE CORRECT PART NUMBER CODE FOR THE DESIRED CABLE TYPE FROM TABLE 1

EXAMPLE: Indoor/Outdoor cable: Select "LT" product family - LTxxxxxxxxxxxxxxxx

TABLE 1 – BERK-TEK OPTICAL CABLE PRODUCT FAMILIES

HD	Heavy Duty (Break-Out Type), Indoor, 2 – 48F, Tight Buffer	RD	Ribbon Distribution Cable, 12F
PD	Premises Distribution, Indoor, 6 – 144F, Tight Buffer	LT	Adventum® Indoor/Outdoor, All-Dry, 6 – 432F, Loose Tube
IC	Interconnect, Indoor, 1 – 4F, Tight Buffer	AT	Adventum Tight-Buffered, 1 – 2F, Loose Tube
MC	Microconnect Cable, 1 – 2F, Tight Buffer	MD	Micro Data Center, 4 – 288F, Loose Tube
TF	Tactical Fiber Cable, Outdoor, 2 – 24F, Tight Buffer	OP	Outside Plant, Outdoor, 6 – 216F, Loose Tube gel-filled tubes
		AC	High Density Distribution, Indoor, 6-432F, Loose Tube

STEP 2: SELECT THE CODE LETTERS FOR CABLE ENHANCEMENTS FROM TABLE 2

Enhancements include flame rating and armoring preferences, displayed in the available combinations.

EXAMPLE: Plenum-rated cable: Select "P" enhancement code - LTPxxxxxxxxxxxxxxxx

NOTE: If there is no "X" mark for a particular cable and enhancement combination, then the product you are interested in is a non-standard item, please contact Berk-Tek Inside Sales.

TABLE 2 – AVAILABLE OPTICAL CABLE ENHANCEMENTS

ENHANCEMENT DESCRIPTION	PRODUCT ENHANCEMENT	OPTICAL FIBER CABLE TYPE												EXAMPLES		
		AC	AT	DAR	HD	IC	LT	MC	MD	OP	PD	RD	TF			
Dry Core, Single Loose Tube	D										X					OPD
Dry Core, Stranded Loose Tube	DD										X					OPDD
Limited Combustible Flame Rated	LC							X								LTLC
Military Tactical Cable	C													X		TFC
Military Tactical Cable, Breakout, 2.0 mm Individual Subunits	HD													X		TFHD
Plenum Flame Rated	P	X	X		X	X	X	X	X		X	X				HDP, ICP, LTP, MCP, PDP, MDP
Plenum Flame Rated, Harsh Environment (Fluoropolymer Jacket)	P HE						X				X					LTP HE
Plenum Flame Rating, Interlocking Aluminum Armor	PK		X			X	X		X		X					MDPK
Plenum Flame Rating, Interlocking Aluminum Armor w/o external sheath	PQ											X				PDPQ
Riser Flame Rated	R		X	X	X	X	X	X		X	X					HDR, ICR, LTR, MCR, OPR, PDR
Riser Flame Rating, Composite Optical Power Cable	RC				X		X			X						HDRC
Riser Flame Rating, Drop Cable	RF									X						OPRF
Riser Flame Rating, Drop Cable w/Tracer Wire	RFT									X						OPRFT
Riser Flame Rating, Interlocking Aluminum Armor	RK		X		X		X			X	X					HDRK, LTRK, OPRK, PDRK
Riser Flame Rating, Interlocking Aluminum Armor w/o external sheath	RQ											X				PDRQ
Riser Flame Rating, Steel Tape Armor	RA						X			X						LTRA, OPRA
Riser Flame Rating, Zero-Halogen	RZ		X		X	X	X	X		X	X					ICRZ, MCRZ, OPRZ
Riser Flame Rating, Zero-Halogen, Steel Tape Armor	RZA									X						OPRZA
Steel Tape Armor, Dry Core, Single Loose Tube	A									X						OPA
Steel Tape Armor, Dry Core, Stranded Loose Tube	AD									X						OPAD
Zero-Halogen (Non-Flame Rated)	Z				X		X			X		X				OPZ
Zero-Halogen (Non-Flame Rated), Steel Tape Armor	ZA									X						OPZA

STEP 3: ADD THE TOTAL FIBER COUNT TO THE CABLE PART NUMBER, USING THREE DIGIT NUMERALS

For example, 6 fibers is coded as 006, 12 fibers is coded as 012, etc. A duplex design cable receives the denotation of OXO. If you are specifying a high count fiber cable, select the subunit code from TABLE 3 and include in front of the total fiber count.

EXAMPLE: 48 fibers - LTP12B048xxxxxxxx

NOTE: Available fiber counts vary by particular product. Refer to product pages within this catalog for specific fiber count availability. Fiber counts must be listed on product pages or included on product data sheets at www.berktek.com to be valid.

TABLE 3 – CABLE SUBUNIT DESIGNATIONS

Fiber Count	Subunit Code	Total Fiber Count
1 – 12F	Not Required	List as 3 digit value (example 6 Fiber = 006)
≥ 12F	12B (12 Fibers per buffer tube/subunit)	List as 3 digit value (example 48 Fiber = 048)*

*6F Subunits available upon request

STEP 4: ADD FIBER SUFFIX FROM TABLE 4 BASED UPON FIBER TYPE AND TRANSMISSION DISTANCE REQUIREMENTS

NOTE: Please note, that for single-mode fiber, fiber suffixes vary based upon cable type.

EXAMPLE: Laser optimized 50/125 μm for 10 Gigabit Ethernet at 300 meters - LTP12B048EB3010/25

TABLE 4 – ATTENUATION, BANDWIDTH & APPLICATION DISTANCE SPECIFICATIONS

FIBER TYPE	62.5/125μm – STANDARD (CB)	62.5/125μm – GIGALite™ (GB)	50/125μm – GIGALite (LB)	50/125μm – GIGALite-10 (EB)	50/125μm – GIGALite-10FB (FB)	50/125μm – GIGALite-10XB (XB)
ISO/IEC	OM1	OM1	Exceeds OM2	OM3	OM4	Exceeds OM4
Wavelength (nm)	850/1300	850/1300	850/1300	850/1300	850/1300	850/1300
Maximum Attenuation (dB/km)	3.5/1.0	3.5/1.0	3.0/1.0	3.0/1.0	3.0/1.0	3.0/1.0
Bandwidth (MHz·km)	200/500*	200/500*	950**/500*	2000**/500*	4700**/500*	4900**/500*
DISTANCE GUARANTEES BY APPLICATION (METERS)						
Ethernet (LAN)	100 Gb/s (100GBASE-SR10)	–	–	100	125	125
	40Gb/s (40GBASE-SR4)	–	–	100	125	125
	10Gb/s (10GBASE-SR)	36	66	150	300	600†
	1Gb/s (1000BASE-SX)	300	500	750	1000	1210
Fiber Channel (SAN)	10Gb/s (1200-SN)	33	33	150	300	600†
	8Gb/s (800-SA)	40	40	100	300	TBD
	8Gb/s (800-SN)	21	21	50	150	TBD
	4Gb/s (400-SN)	70	70	150	380	TBD
	2Gb/s (200-SN)	150	150	390	500	600

*Overfilled Bandwidth Measurement per EIA FOTP 204—Paragraph 3.2.1. **Differential Mode Delay per EIA FOTP-220 DMD Test Measurement. Also available with single-mode fiber.
 †600 m for 10GBASE-SR: 3.0 dB/km cable attenuation and 0.65 dB connection loss utilizing two mated LC connector pairs. Additional optical fiber options available. For the most current optical fiber specifications, contact Customer Service at 1-800-BERK-TEK or visit us online at www.berktek.com. Berk-Tek reserves the right to modify optical performance specifications without prior notice.

For fiber details, refer to pages 56 to 57.

HYBRID & COMPOSITE OPTICAL CABLES

- ▶ Berk-Tek offers a broad selection of hybrid multimode/single-mode and composite copper/fiber cabling solutions
- ▶ **Hybrid cables** include two or more optical fiber types having different core diameters or dissimilar performance characteristics
- ▶ Berk-Tek standard process is to place larger core diameter fibers first in the standard color sequence:

EXAMPLE: A loose tube cable with 24 multimode fibers and 24 single-mode fibers will have the first multimode fibers in the blue and orange buffer tubes (12 fibers in each tube). The single-mode fibers will be within the green and brown buffer tubes.

- ▶ **Composite cables** incorporate optical fibers along with copper conductive wires used for data or electrical power transmission

Additional optical cable products and configurations are available

Contact Inside Sales at 1-800-BERK-TEK (1-800-237-5835) for additional information or visit our web site at www.berktek.com.

APPENDIX A: SELECTING THE BEST FIBER OPTIC CABLE FOR YOUR NEEDS

FIBER CABLE CONSTRUCTION GUIDE

When determining what type of fiber optic cable is best suited to your particular installation needs, you must consider the limitations and requirements of the physical environment. The tables below present the Berk-Tek recommended cable types for various environmental and installation conditions.

RECOMMENDED ALL-DIELECTRIC DESIGNS	CABLE APPLICATIONS						
	FLAME RATING	OUTDOOR (fibers)	INDOOR/OUTDOOR (fibers)	INDOOR BACKBONE (fibers)	HORIZONTAL (fibers)	INTERCONNECT (fibers)	SPECIALTY
Outdoor Only	OPD, OPDD (2 - 216)	—	—	—	—	—	TFC, TFHD, OPTF, OPFD
Riser (OFNR)	OPR (2 - 216) DAR (2 - 12)	ATR (1 - 2), LTR (4 - 216), PDR I/O(BLA) (6 - 144)	PDR (6 - 144)	ICR (1 - 2), PDR (6 - 144), HDR (2 - 48)	ICR (1 - 4) MCR (1 - 2)	OPRF, OPRFT	
Plenum (OFNP)	—	ATP (1 - 2), LTP (4 - 216), PDP HE(BLA) (4 - 144)	MDP (4 - 72) PDP (6 - 144)	ICP (1 - 2), PDP (6 - 144), RDP (12), HDP (2 - 48)	ICP (1 - 4) MCP (1 - 2), RDP (12)	LTP HE	
Zero-Halogen Riser (OFNR-LS)	OPRZ (2 - 216)	LTRZ (4 - 216), PDRZ (6 - 48), OPRZ (2 - 216)	PDRZ (6 - 48)	ICRZ (1 - 2) PDRZ (6 - 48)	ICRZ (1 - 4) MCRZ (1 - 2)	—	
Zero-Halogen (not rated)	OPZ (2 - 216)	PDZ (6 - 144)	—	—	—	—	

RECOMMENDED ARMORED FIBER CABLE	CABLE APPLICATIONS		
	DIRECT BURIAL RODENT RESISTANT	INDOOR/OUTDOOR	INDOOR IN PLACE OF CONDUIT OR INNERDUCT
Interlock Aluminum, Riser Rated	OPRK	ATRK, LTRK	PDRK, OPRK, HDRK
Interlock Aluminum, Plenum Rated	—	ATPK, LTPK	MDPK, PDPK
Interlock Aluminum, Riser Rated, Low-Smoke Zero-Halogen	OPRZK	LTRZK	—
Corrugated Steel Tape	OPA	—	—
Corrugated Steel Tape, Riser Rated, Low-Smoke Zero-Halogen	OPRZA	OPRZA	—

Steel Interlock Armor also available

Cable Series Key for above tables: AT—Adventum® Indoor/Outdoor Tight Buffer Loose Tube; LT—Adventum Indoor/Outdoor; OP—Outside Plant; PD—Premises Distribution; IC—Interconnect; RD—12-Fiber Ribbon; MC—Microconnect (for SFF); MD Series—Micro Data Center Plenum

FIBER TYPE GUIDE

Selecting the correct fiber type for your application needs is simple. Just consult the table below to see the recommended fiber type based upon application requirements, distance limitations and transmission options. All varieties of Berk-Tek fiber optic cable can be made with any type of fiber, ensuring that you get exactly the fiber optic cable that you need.

RECOMMENDED FIBER TYPE (850 nm SERIAL TRANSMISSION)	APPLICATIONS			
	10 GIGABIT ETHERNET	1 GIGABIT ETHERNET	FAST ETHERNET (100 Mbps)	
DISTANCE	Up to 300 m (984 ft)	50 µm GIGAlite™-10	62.5 µm Standard	62.5 µm Standard
	Up to 600 m (1968 ft)	50 µm GIGAlite-10XB	50 µm GIGAlite (750 m)	62.5 µm Standard
	Up to 1000 m (3280 ft)	Single-mode	50 µm GIGAlite-10	62.5 µm Standard
	> 1000 meters (>3280 ft)	Single-mode	Single-mode	62.5 µm Standard

RECOMMENDED FIBER TYPE (1300/1310 nm SERIAL TRANSMISSION)	APPLICATIONS			
	10 GIGABIT ETHERNET	1 GIGABIT ETHERNET	FAST ETHERNET (100 Mbps)	
DISTANCE	Up to 300 m (984 ft)	50 µm GIGAlite-10	62.5 µm Standard	62.5 µm Standard
	Up to 600 m (1968 ft)	Single-mode	62.5 µm Standard	62.5 µm Standard
	Up to 2000 m (6560 ft)	Single-mode	50 µm GIGAlite	62.5 µm Standard
	> 2000 meters (> 6560 ft)	Single-mode	Single-mode	Single-mode

FIBER AND SUBUNIT COLOR CODES *

FIBER/ SUBUNIT NUMBER FIBER COLORS FIBER COLOR ABBREVIATION	1	2	3	4	5	6	7	8	9	10	11	12
	BLU	ORA	GRE	BRO	SLA	WHI	RED	BLA	YEL	VIO	ROS	AQU

*Tight buffer cable color codes are labeled on both fibers and subunits according to TIA/EIA-598.

FIBER TECHNICAL DATA

FIBER TYPE	FIBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz • km)	DISTANCE (meters)	
ENHANCED ₁ SINGLE-MODE					1 GbE	10 GbE
Standard for Loose Tube	AB0403	1310/1550	0.4/0.3 ₂	N/A	≥ 5000 @ 1310 nm	≥ 10,000
Standard for Tight Buffer	AB0707	1310/1550	0.7/0.7	N/A	≥ 5000 @ 1310 nm	≥ 10,000
MULTIMODE					1 GbE	10 GbE
62.5/125 μm – Standard*	CB3510/25	850/1300	3.5/1.0	200 ₃ /500 ₃	300/600	36/300 ₅
50/125 μm – GIGAlite™*	LB3010/75	850/1300	3.0/1.0	950 ₄ /500 ₃	750/600	150/300 ₅
50/125 μm – GIGAlite-10*	EB3010/25	850/1300	3.0/1.0	2000 ₄ /500 ₃	1000/600	300/300 ₅
50/125 μm – GIGAlite-10XB*	XB3010/X5	850/1300	3.0/1.0	4900 ₄ /500 ₃	1210/600	600/300 ₅

1. Enhanced SMF-improved performance across 1260 nm to 1625 nm wavelength spectrum. Low dispersion @ 1310 nm and low attenuation in 1383 nm water-peak region allows use of extended band (1360 nm to 1460 nm). Complies with ITU-T G.652D and IEC 60793.2.B1.3. 2. Optional Maximum Attenuation values 0.3/0.2 dB/km @ 1310/1550 nm are available for certain Loose Tube cables. Contact Berk-Tek for further information. 3. Overfilled launch per EIA/TIA-455-204. 4. Effective Modal Bandwidth as characterized by Differential Mode Delay (DMD) measurement per EIA/TIA-455-204. 5. 10 GbE transmission distance @ 1300 nm applies to 10GBASE-LX4 (CWDM) only. *No Mode Conditioning Patch Cord required. All 10 GbE transmission distances (except GIGAlite-10XB) @ 850 nm assume a maximum cable attenuation of 3.0 dB/km and a connection and splice loss of 0.8 dB. For GIGAlite-10XB, a maximum cable attenuation of 3.0 dB/km and a connection and/or splice loss of 0.65 dB is assumed.

Support for legacy system designs and specialty fiber types are available. Contact Customer Service for special glass code designations and for more information at 1-800-BERK-TEK. For the most current optical fiber specifications, please visit our website at www.berktek.com. Berk-Tek reserves the right to modify optical performance specifications without prior notice.

OUTER CABLE SHEATH COLOR BASED UPON CABLE AND FIBER TYPE

FIBER TYPE	ACP, LTP, LTP HE LTPK MDP, MDPK	DAR, LTR, LTRA, LTRC, LTRK OPA, OPAD, OPD, OPDD, OPFD, OPTF OPR, OPRA, OPRC, OPRF, OPRFT OPRK, OPRZ, OPRZA OPZ, OPZA	HDP, HDPK, HDR, HDRK, HDRZ ICP, ICR, ICRZ MCP, MCR, MCRZ PDP, PDPK, PDR, PDRK, RDP	ATP, ATPK, ATR, ATRK, HDRC, PDR-I/O(BLA), PDP-HE(BLA), TFC/TFHD, TFHC
GIGAlite-10XB (50/125 μm) (XB)	XB3010/X5	XB3010/X5	XB3010/X5	XB3010/X5
GIGAlite-10 (50/125 μm) (EB)	EB3010/25	EB3010/25	EB3010/25	EB3010/25
GIGAlite (50/125 μm) (LB)	LB3010/75	LB3010/75	LB3010/75	LB3010/75
Multimode (62.5/125 μm) (CB)	CB3510/25	CB3510/25	CB3510/25	CB3510/25
Enhanced Single-mode (AB)	AB0403	AB0403	AB0707	AB0707

Aqua External Cable Sheath
 Orange External Cable Sheath

Black External Cable Sheath
 Yellow External Cable Sheath

APPENDIX B: COPPER CABLE PART NUMBER INDEX

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
10032026	13	10032493	21	10068822	25	10167483	12
10032031	19	10032494	21	10070439	24	10167485	23
10032036	21	10032510	17	10071496	18	10167487	23
10032040	19	10032528	17	10074211	24	10167488	23
10032047	19	10032531	17	10074212	24	10170669	12
10032051	19	10032535	17	10080224	20	10170688	12
10032053	26	10032539	17	10089521	20	10177330	10
10032060	16	10032637	16	10090687	24	10189616	27
10032065	16	10032639	16	10092804	20	10189719	27
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