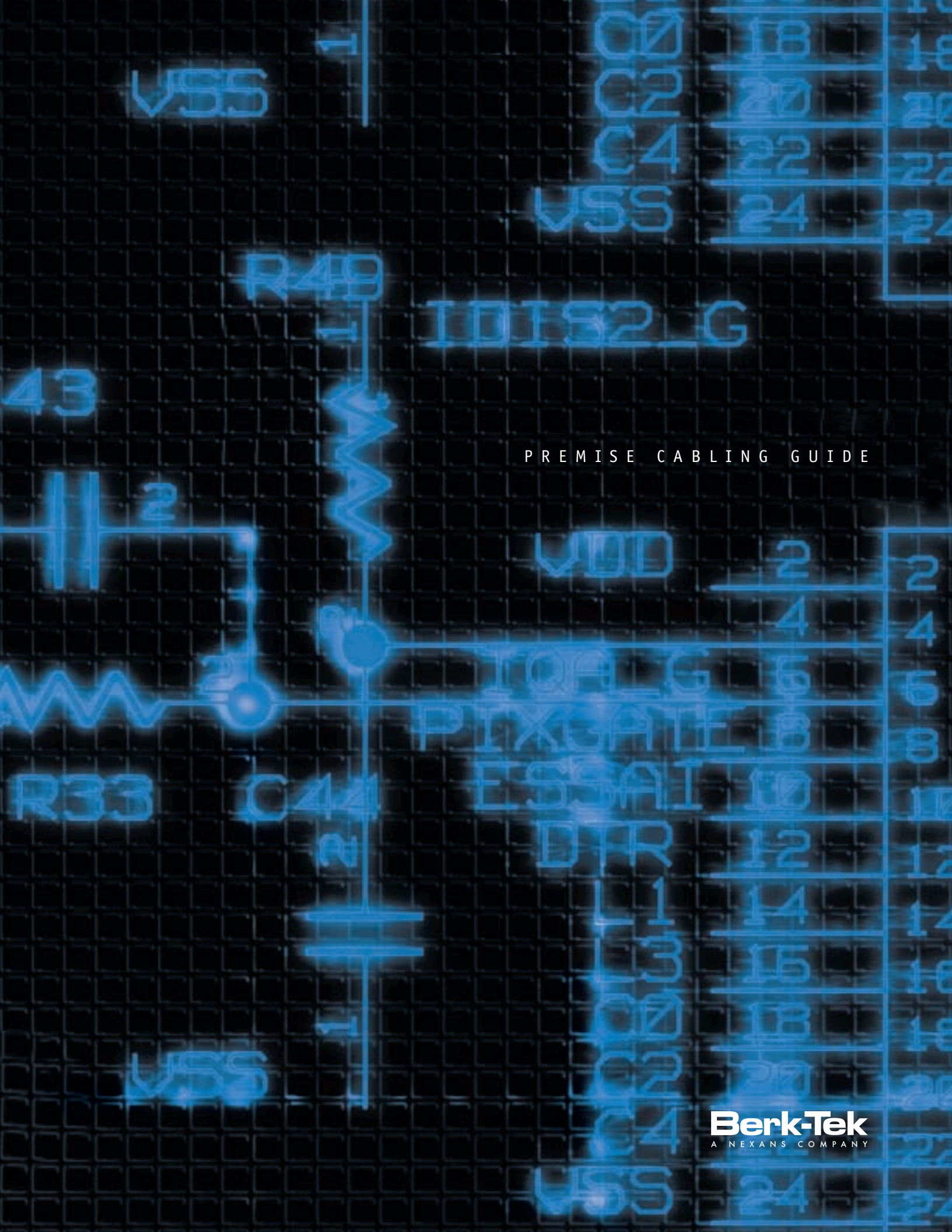

PREMISE CABLING GUIDE

Berk-Tek
A NEXANS COMPANY

THE WORLD LEADER FOR HIGH —

Berk-Tek is one of the world's leading manufacturers of UTP and fiber optic cables. Our products are the choice for information intensive applications around the world, and our network cable solutions are unsurpassed for every application. Additionally, Berk-Tek's parent company, Nexans, ranks among the top three players in the cable industry worldwide.

WHATEVER YOUR NETWORK APPLICATION, BERK-TEK HAS THE HIGH-PERFORMANCE CABLING SOLUTION.

From its inception, Berk-Tek has been technology-driven and customer-focused, offering robust, high quality cable options for local area networks and structured cabling applications. With over 100 different network cable products, Berk-Tek offers one of the most complete product lines in the industry with guaranteed superior product performance, backed by an extensive list of value-added services and state-of-the-art engineering.

(Top) Berk-Tek's revolutionary ADVENTUM™ fiber optic cable is a completely dry loose tube outdoor/indoor cable, available in both plenum and riser versions. (Bottom) LANmark-2000, LANmark-1000, and LANmark-350™ are three of the highest performing UTP cables available.

All Berk-Tek cables and cabling solutions are guaranteed to meet specifications covering TIA/EIA, ISO/IEC, ICEA, and NEMA requirements. They are also independently verified by the UL and ETL Testing Laboratories. As appropriate, specific Berk-Tek cables also comply with ISO/IEC 11801.

As a result, Berk-Tek provides clear advantages within every cable series, for every application. Our experience includes virtually every possible networking application and configuration.

A GLOBAL COMMITMENT TO QUALITY AND LEADERSHIP.

Always at the forefront of innovation, Berk-Tek provides clear advantages within every cable series, for every application, and routinely leads the industry in the development of high performance UTP and fiber optic cables designed to support virtually every type of netwoking technology and configuration.

Berk-Tek maintains leadership positions in industry standards organizations like the Telecommunications Industry Association (TIA), the International Electrotechnical Commission (IEC) and the Building Industry Consulting Service International (BICSI). Through our active participation in these organizations, Berk-Tek has had a major impact in determining the direction of communications cable performance standards and applications. Our leadership role in international standards groups has enabled us to bring our unwavering total quality commitment to bear on emerging global standards and technologies.

To ensure that our product quality is consistently high, every meter of cable is monitored and tested. Our Pass/Fail criteria are the most stringent in the industry, and Berk-Tek manufacturing and engineering facilities incorporate the latest in real-time quality monitoring and data acquisition throughout each step in the cable production process.

LANMARK UTP: THE BEST STRUCTURED CABLING SOLUTION AVAILABLE.

Our flagship LANmark series embodies the most advanced structured cabling technology available, providing users with a system link component that features the lowest level noise and the highest bandwidth potential available, from Enhanced Category 5e to Enhanced Category 6.

The LANmark series UTP cables—LANmark-2000, LANmark-1000, LANmark-350™ and LANmark-100—offer guaranteed performance that significantly exceeds industry standards, providing headroom for advances in technology for many years to come.

For example, both our LANmark-2000 Enhanced Category 6 cable and the LANmark-1000 Category 6 cable series are comprised of TIA/EIA Category 6 cables, compliant to the latest draft of the standard, that are specified and tested beyond industry standards.

Berk-Tek's complete line of outside plant fiber optic products feature DryGel™, a totally dry water blocking technology, and our GIGAlite™ enhanced multi-mode fibers support significantly extended distances for Gigabit and 10 Gigabit Ethernet systems.

P E R F O R M A N C E N E T W O R K C A B L E .

LANmark-350™ sets new standards for 100BASE-TX Ethernet network performance, significantly exceeding the EIA/TIA specification for Category 5e, with superior headroom and usable bandwidth tested to 350 MHz to provide system reliability and future network responsiveness capabilities.

INNOVATIVE FIBER OPTIC CABLE SOLUTIONS.

Berk-Tek's GIGAlite™ laser-optimized optical fiber provides extended application distance benefits. Our GIGAlite™ optical fiber technology is capable of supporting Gigabit Ethernet signals up to 600 meters at 850 nm and 2000 meters at 1300 nm. GIGAlite-10 optical fibers are among the first in the industry to support 10 Gigabit Ethernet serial transmission to 300 meters.

Berk-Tek's ADVENTUM™ is the first completely dry, loose tube outdoor/indoor cable. Available in both plenum (NFPA 262 and CSA FT6) and riser-rated (UL 1666 and CSA FT4) versions, ADVENTUM eliminates the need for transition point terminations between buildings, improving system performance and significantly reducing installation and maintenance costs. With its rugged construction and DryGel™ technology, ADVENTUM can withstand the rigors of the outside plant environment, yet it is flexible enough to be installed anywhere in a premise cabling system.

NETCLEAR™: GUARANTEED TOTAL CHANNEL PERFORMANCE.

NetClear is a strategic and engineering alliance of Berk-Tek and Ortronics, working together to provide seamlessly integrated, tuned network solutions. All NetClear solutions are independently tested and verified and are backed by a 25-year Total System Warranty. The result: a network cabling system that is guaranteed to exceed the bit error rate requirements of even the most demanding applications.

OASIS: BERK-TEK'S INNOVATIVE OPEN ARCHITECTURE APPROACH.

Berk-Tek pioneered true open architecture with OASIS: Open Architecture Systems Interconnection Solutions, an innovative approach that delivers guaranteed total channel performance with a variety of connectivity options carefully engineered to

support a myriad of advanced applications. With OASIS, Berk-Tek provides real solutions for the structured cabling industry with a level of technology, flexibility and reliability that is unmatched. Bottom line: the OASIS Program is powerful enough to deliver guaranteed performance over 25 years, yet flexible enough to utilize your preferences for connectivity.

For more information on Berk-Tek cabling solutions, NetClear, OASIS or any of the more than 100 different Berk-Tek cabling products, call or fax today, or visit our website at www.berktek.com.

OUR MISSION SAYS IT BEST.

The Berk-Tek mission is to provide our customers with the best optical fiber and copper cable products possible through an unwavering commitment to total quality and superior technical, engineering and installation support and to lead the industry in the development and application of new, innovative network cabling solutions.

Berk-Tek engineers excellence at every stage of the manufacturing process. The result: high-performance cables that exceed even the most demanding requirements.

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COPPER CABLE APPLICATIONS & PRODUCTS

FIBER OPTIC CABLE APPLICATIONS & PRODUCTS

- Horizontal and Patch Cable
- Multimedia
- Riser and Plenum Rated
- Limited Combustible (CMP-50) available

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The LANmark-2000 cable series is comprised of TIA/EIA Category 6, Draft 10a compliant cables that are specified and tested to 500 MHz.

LANmark-2000 is a true multimedia cable and is specifically designed to handle voice, video and data simultaneously. The useable bandwidth allows for the convergence of analog video, voice and data onto one cable simultaneously. This convergence of technologies simplifies even the most dynamic network.

LANmark-2000 is Berk-Tek's highest performing Enhanced Category 6 cable available. Every key electrical property for LANmark-2000 has been improved when measured against Draft 10a of the TIA/EIA Category 6 standard. This improvement in electrical performance ensures that transmitted signals will be stronger and less susceptible to outside interference, resulting in more robust network performance.

CONSTRUCTION

0.56 mm (23 AWG), bare copper wire insulated with polyethylene (non-plenum) or 0.66 mm (22 AWG), bare copper wire insulated with FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs laid up to form the basic unit jacketed with flame-retardant PVC.

STANDARDS

North American	ANSI/TIA/EIA-568-B.2 Category 5, Category 5e Category 6 Draft 10a
International	ISO/IEC 11801-1995
European	EN 50173

FLAME RATING

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

APPLICATIONS

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

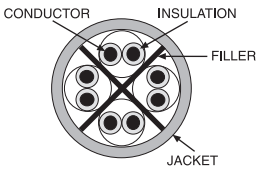
IEEE 802.3 1000BASE-T, 100BASE-TX, 10BASE-T
1000BASE-TX (ANSI/TIA/EIA-854-2001)
155 Mb/s ATM
ANSI X3.263 100Mb/s
4/16 Mb/s Token Ring

FEATURES

- Full duplex operation capable over four cable pairs
- Increased usable bandwidth up to 350 MHz
- Documented balance characteristics (LCL/TCL, EL, TCTL)
- Reduced attenuation (Insertion Loss)
- ETL verified to TIA/EIA Category 6, Draft 10a
- Highest performing UTP cable available

BENEFITS

- Capable of handling applications which utilize full duplex operation and/or simultaneous bidirectional transmission
- Provides bandwidth required for multimedia, broadband video, analog video and other future applications
- Balance characteristics improves overall cable performance and reduces cable emission which results in reduced transmission errors
- Improved attenuation allows more signal to reach the receiver resulting in cleaner data and video transmission
- State-of-the-art testing allows high frequency characterization of the cable to 500 MHz



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TECHNICAL DATA—PHYSICAL

	CMR		CMP		CM (PATCH)*	
Conductor diameter–in. (mm)	.022	(0.56)	.0258	(0.66)	.0246	(0.62)
Cable diameter–in. (mm)	.250	(6.4)	.250	(6.4)	.250	(6.4)
Nominal cable weight–lb./kft. (kg/km)	29	(42.5)	39	(57.2)	30	(44)
Max. installation tension–lb. (N)	25	(110)	25	(110)	25	(110)
Min. bend radius–in. (mm)	1.0	(25.4)	1.0	(25.4)	1.0	(25.4)

* Patch cables utilize stranded tinned copper conductors.

PARAMETRIC MEASUREMENTS

	HORIZONTAL	PATCH
Mutual Capacitance	4.4 nF/100 m nom.	4.4 nF/100 m nom.
DC resistance max.	9.37 Ohms/100 m max.	9.37 Ohms/100 m max.
Skew	25 ns/100 m max.	25 ns/100 m max.
Pair to ground Unbalance	330 pF/100 m max.	330 pF/100 m max.
Velocity of Propagation	70% nom. Non-Plenum 72% nom. Plenum	70% nom.
Input Impedance	100 ± 13% 0.772-100 MHz 100 ± [13+15log (F/100)] 100-500 MHz ISO/IEC 11801	100 ± 13% 0.772-100 MHz 100 ± [13+15log (F/100)] 100-500 MHz

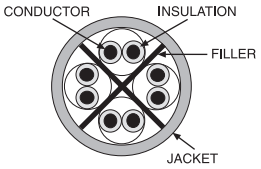
TEMPERATURE RATING

INSTALLATION	0°C to +50°C
OPERATION	-10°C to +60°C

PART NUMBERS—ENHANCED CATEGORY 6 UTP

NO. PAIRS	PART NUMBER	JACKET	FLAME RATING	JACKET COLOR
4	10033818	PVC	CMR Riser	Light Gray
4	10033817	PVC	CMR Riser	Blue
4	10033394	PVC	CMR Riser	White
4	10033819	PVC	CMR Riser	Yellow
4	10033820	PVC	CMR Riser	Green
4	10033598	PVC	CM Patch	Light Gray
4	10033821	PVC	CM Patch	White
4	10033822	PVC	CM Patch	Blue
4	10033823	PVC	CM Patch	Yellow
4	10033825	PVC	CM Patch	Green
4	10033827	PVC Alloy	CMP Plenum	Light Gray
4	10033828	PVC Alloy	CMP Plenum	Yellow
4	10033829	PVC Alloy	CMP Plenum	White
4	10032251	PVC Alloy	CMP Plenum	Blue
4	10033830	PVC Alloy	CMP Plenum	Green
4	10044861	FEP	CMP-50	Clear

Note: Standard Lengths: 1,000 feet (305 meters.) Specifications subject to change without notice. Available on reels only. Other jacket colors available.



- Horizontal and Patch Cable
- Multimedia
- Riser and Plenum Rated
- Limited Combustible (CMP-50) available

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TECHNICAL DATA—ELECTRICAL (Patch cable values appear in parentheses)

HORIZONTAL																	
FREQ	SRL (dB)			RL (dB)			INSERTION LOSS (ATTENUATION) (dB)			PS-NEXT (dB)			NEXT (dB)			ACR (dB)	
MHz	MIN.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH	MAX.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH	MIN.	TYPICAL
1.0	26.0	44.1	(26.0)	20.0	32.0	(20.0)	1.7	1.5	(2.4)	78.0	98.4	(78.0)	80.0	100.4	(80.0)	78.3	93.9
4.0	26.0	47.4	(26.0)	23.6	32.0	(23.6)	3.5	3.1	(4.6)	69.0	88.8	(69.0)	70.0	90.8	(70.0)	66.5	82.4
10.0	26.0	45.9	(26.0)	26.0	36.2	(26.0)	5.5	4.9	(7.1)	63.0	80.2	(63.0)	65.0	82.2	(65.0)	59.5	72.2
16.0	26.0	43.4	(26.0)	26.0	39.7	(26.0)	7.0	6.3	(9.0)	60.0	77.5	(60.0)	62.0	79.5	(62.0)	55.0	68.5
20.0	26.0	42.7	(26.0)	26.0	39.9	(26.0)	7.8	7.1	(10.1)	59.0	75.7	(59.0)	61.0	77.7	(61.0)	53.2	65.9
31.3	25.0	41.4	(25.0)	25.0	41.0	(25.0)	9.8	9.0	(12.7)	56.0	72.8	(56.0)	58.0	74.8	(58.0)	48.2	61.6
62.5	23.5	39.5	(23.5)	23.5	37.7	(23.5)	14.1	13.0	(18.4)	51.0	68.3	(51.0)	53.0	70.3	(53.0)	38.9	51.5
100.0	22.5	39.9	(22.5)	22.5	37.4	(22.5)	18.0	16.8	(23.6)	48.0	64.5	(48.0)	50.0	66.5	(50.0)	32.0	45.1
155.0	21.6	38.9	(21.6)	21.6	37.3	(21.6)	23.2	21.4	(30.0)	45.0	62.0	(45.0)	47.0	64.0	(47.0)	23.8	38.1
200.0	21.0	38.0	(21.0)	21.0	36.0	(21.0)	29.1	24.7	(34.6)	43.0	59.5	(43.0)	45.0	61.5	(45.0)	15.9	32.0
250.0	20.5	37.4	(20.5)	20.5	35.2	(20.5)	30.9	27.9	(39.1)	42.0	58.1	(42.0)	44.0	60.1	(44.0)	13.1	27.6
350.0	19.8	34.1	(19.8)	19.8	32.0	(19.8)	38.1	34.0	(47.4)	40.0	54.8	(40.0)	42.0	56.8	(42.0)	3.9	19.2
500.0	19.0	33.2	(19.0)	19.0	31.3	(19.0)	47.7	42.0	(58.3)	38.0	53.5	(38.0)	40.0	55.5	(40.0)	—	9.0

TECHNICAL DATA—ELECTRICAL (Patch cable values appear in parentheses)

HORIZONTAL															
FREQ	PS-ACR (dB)		ELFEXT (dB)			PS-ELFEXT (dB)			LCL/TCL (dB)			EL TCTL (dB)		
MHz	MIN.	TYPICAL	MIN.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH
1	76.3	92.1	70.0	94.3	(76.8)	68.0	85.4	(74.8)	50.0	63.8	(50.0)	35.0	58.3	(35.0)
4	64.5	81.0	58.0	83.1	(64.7)	56.0	73.8	(62.7)	43.0	61.8	(43.0)	22.0	54.0	(22.0)
10	57.5	70.4	50.0	74.0	(56.8)	48.0	65.5	(54.8)	40.0	60.2	(40.0)	15.0	50.8	(15.0)
16	53.6	66.8	46.0	70.9	(52.7)	44.0	61.9	(50.7)	37.0	60.5	(37.0)	10.0	49.6	(10.0)
20	51.2	64.1	44.0	69.5	(50.7)	42.0	60.0	(48.7)	36.0	59.0	(36.0)	8.0	49.6	(8.0)
31	46.2	59.9	40.0	66.4	(46.9)	38.0	56.9	(44.9)	35.0	58.4	(35.0)	—	—	(—)
63	36.9	49.9	34.0	61.1	(40.8)	32.0	51.3	(38.8)	32.0	56.4	(32.0)	—	—	(—)
100	30.0	43.3	30.0	56.0	(36.8)	28.0	47.0	(34.8)	30.0	54.2	(30.0)	—	—	(—)
155	21.8	36.4	26.0	52.3	(32.9)	24.0	42.7	(30.9)	28.0	53.0	(28.0)	—	—	(—)
200	13.9	30.4	24.0	47.6	(30.7)	22.0	39.6	(28.7)	26.0	51.4	(26.0)	—	—	(—)
250	11.1	26.1	22.0	46.2	(28.8)	20.0	37.6	(26.8)	—	—	(—)	—	—	(—)
350	1.9	17.7	19.0	41.4	(25.9)	17.0	34.0	(23.9)	—	—	(—)	—	—	(—)
500	—	7.2	16.0	38.9	(22.8)	14.0	33.0	(20.8)	—	—	(—)	—	—	(—)

CATEGORY 6 | UTP/4 PAIR | LANMARK-1000

- Horizontal and Patch Cable
- Full duplex
- Riser and Plenum Rated
- Limited Combustible (CMP-50) available

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The LANmark-1000 cable series is completely characterized using power sum crosstalk. It introduces new electrical performance parameters which address the needs of full duplex operation over four pairs. These electrical characteristics include: PS-NEXT, PS-ACR, PS-ELFEXT, ELFEXT, RL and LCL/TCL/EL TCTL (balance).

LANmark-1000 is the first cable which sets requirements for cable balance. Balance is the performance parameter which effects cable emissions. Cable balance is a property that protects the network from the damaging effects of outside noise sources such as alien crosstalk. Impedance is measured per the stringent swept frequency requirements of ISO/IEC 11801.

CONSTRUCTION

0.58 mm (24 AWG), bare copper wire insulated with polyethylene (non-plenum) or FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs laid up to form the basic unit jacketed with flame-retardant PVC.

STANDARDS

North American	ANSI/TIA/EIA-568-B.2 Category 5, Category 5e Category 6 Draft 10a
International	ISO/IEC 11801-1995
European	EN 50173

FLAME RATING

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

APPLICATIONS

Berk-Tek's LANmark-1000 UTP cable is intended for future and high speed data applications including:

IEEE 802.3 1000BASE-T, 100BASE-TX, 10BASE-T
155 Mb/s ATM
ANSI X3.263 100 Mb/s
1000BASE-TX (ANSI/TIA/EIA-854-2001)
4/16 Mb/s Token Ring

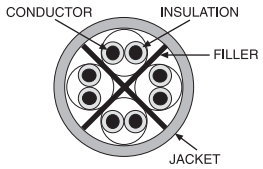
FEATURES

- Full duplex operation over four cable pairs
- Full power sum performance
- Increased usable bandwidth up to 250 MHz
- Documented balance characteristics (LCL, LCTL)
- Small, round, easy to install construction
- TIA/EIA Category 6 Draft 10a compliant cables that are specified and tested to 500 MHz

BENEFITS

- Capable of handling the next generation network applications which will utilize full duplex operation and/or simultaneous bidirectional transmission
- Power sum characterization gives highest performance using existing applications
- Provides additional bandwidth required for future applications
- Addition of balance requirements improves overall cable performance and reduces cable emissions which results in reduced transmission errors
- Capable of handling full broadband and baseband video signals
- State-of-the-art testing allows high frequency characterization of the cable to 500 MHz

CATEGORY 6 | UTP/4 PAIR | LANMARK-1000



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TECHNICAL DATA—PHYSICAL

	CMR		CMP		CM (PATCH)*	
Conductor diameter–in. (mm)	.022	(0.56)	.023	(0.58)	.024	(0.61)
Cable diameter–in. (mm)	.230	(5.8)	.215	(5.5)	.215	(5.5)
Nominal cable weight–lb./kft. (kg/km)	29	(43)	30	(44)	24	(35)
Max. installation tension–lb. (N)	25	(110)	25	(110)	25	(110)
Min. bend radius–in. (mm)	1.0	(25.4)	1.0	(25.4)	1.0	(25.4)

* Patch cables utilize stranded tinned copper conductors.

PARAMETRIC MEASUREMENTS

	HORIZONTAL	PATCH
Mutual Capacitance	4.4 nF/100 m nom.	4.4 nF/100 m nom.
DC resistance	9.38 Ohms/100 m max.	9.09 Ohms/100 m max.
Skew	25 ns/100 m max.	25 ns/100 m max.
Pair to ground Unbalance	330 pF/100 m max.	330 pF/100 m max.
Velocity of Propagation	70% nom. Non-Plenum 72% nom. Plenum	70% nom.
Input Impedance	100 ± 13% 0.772-100 MHz 100 ± [13+15log (F/100)] 100-500 MHz ISO/IEC 11801	100 ± 13% 0.772-100 MHz 100 ± [13+15log (F/100)] 100-500 MHz

TEMPERATURE RATING

INSTALLATION	0°C to +50°C
OPERATION	-10°C to +60°C

COLOR CODE

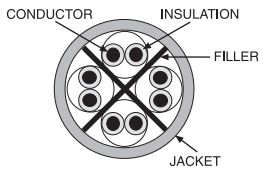
PAIR 1	White/Blue	Blue
PAIR 2	White/Orange	Orange
PAIR 3	White/Green	Green
PAIR 4	White/Brown	Brown

PART NUMBERS—CATEGORY 6 UTP

NO. PAIRS	PART NUMBER	JACKET	FLAME RATING	JACKET COLOR
4	10032452	PVC	CMR Riser	Light Gray
4	10032455	PVC	CMR Riser	Blue
4	10032459	PVC	CMR Riser	White
4	10032461	PVC	CMR Riser	Yellow
4	10032479	PVC	CMR Riser	Green
4	10032678	PVC	CM Patch	Light Gray
4	10032679	PVC	CM Patch	White
4	10032680	PVC	CM Patch	Blue
4	10032681	PVC	CM Patch	Yellow
4	10032693	PVC	CM Patch	Green
4	10032026	PVC Alloy	CMP Plenum	Light Gray
4	10032090	PVC Alloy	CMP Plenum	Yellow
4	10032092	PVC Alloy	CMP Plenum	White
4	10032094	PVC Alloy	CMP Plenum	Blue
4	10032097	PVC Alloy	CMP Plenum	Green
4	10044859	FEP	CMP-50	Clear

Note: Standard Lengths: 1,000 feet (305 meters.) Specifications subject to change without notice. Part numbers here are for Tek-Pak boxes—also available on reels. Other jacket colors available.

CATEGORY 6 | UTP/4 PAIR | LANMARK-1000



- Horizontal and Patch Cable
- Full duplex
- Riser and Plenum Rated
- Limited Combustible (CMP-50) available

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A NEXANS COMPANY

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TECHNICAL DATA—ELECTRICAL (Patch cable values appear in parentheses)

HORIZONTAL																	
FREQ	SRL (dB)			RL (dB)			INSERTION LOSS (ATTENUATION) (dB)			PS-NEXT (dB)			NEXT (dB)			ACR (dB)	
MHz	MIN.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH	MAX.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH	MIN.	TYPICAL
1	26.0	40.0	(26.0)	20.0	33.7	(20.0)	2.0	1.7	(2.4)	73.3	81	(73.3)	75.3	84	(75.3)	73.3	82
4	26.0	42.0	(26.0)	23.6	35.4	(23.6)	3.8	3.5	(4.6)	64.3	72	(64.3)	66.3	75	(66.3)	62.5	71
10	26.0	40.0	(26.0)	26.0	30.1	(26.0)	5.9	5.7	(7.1)	58.3	66	(58.3)	60.3	69	(60.3)	54.4	63
16	26.0	41.0	(26.0)	26.0	31.9	(26.0)	7.5	7.3	(9.0)	55.3	63	(55.3)	57.3	66	(57.3)	49.8	59
20	26.0	43.0	(26.0)	26.0	33.3	(26.0)	8.4	8.2	(10.1)	53.8	62	(53.8)	55.8	65	(55.8)	47.4	57
31.25	25.0	41.6	(25.0)	25.0	31.6	(25.0)	10.6	10.3	(12.7)	50.9	59	(50.9)	52.9	62	(52.9)	42.3	52
62.5	23.5	40.5	(23.5)	23.5	31.9	(23.5)	15.3	14.9	(18.4)	46.4	54	(46.4)	48.4	57	(48.8)	33.1	42
100	22.5	37.1	(22.5)	22.5	31.1	(22.5)	19.7	19.1	(23.6)	43.3	51	(43.3)	45.3	54	(45.3)	25.3	35
155	21.6	33.8	(21.6)	21.6	28.8	(21.6)	25.0	24.3	(30.0)	40.4	48	(40.4)	42.4	51	(42.4)	17.0	27
200	21.0	33.0	(21.0)	21.0	28.0	(21.0)	28.8	28.0	(34.6)	38.8	47	(38.8)	40.8	50	(40.8)	12.2	22
250	20.5	17.3	(20.5)	20.5	27.2	(20.5)	32.6	31.7	(39.1)	37.3	45	(37.3)	39.3	48	(39.3)	6.2	16
350	19.8	28.3	(19.8)	19.8	26.2	(19.8)	39.5	38.4	(47.4)	35.2	43	(35.2)	37.2	46	(37.2)	—	—
500	19.0	25.2	(19.0)	19.0	23.2	(19.0)	48.6	47.2	(58.3)	32.8	41	(32.8)	34.8	44	(34.8)	—	—

TECHNICAL DATA—ELECTRICAL (Patch cable values appear in parentheses)

HORIZONTAL															
FREQ	PS-ACR (dB)		ELFEXT (dB)			PS-ELFEXT (dB)			LCL/TCL (dB)			EL TCTL (dB)		
MHz	MIN.	TYPICAL	MIN.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH
1	71.3	79	68.8	83	(68.8)	65.8	80	(65.8)	50	55	(50)	35	40	(35)
4	60.5	68	56.7	71	(56.7)	53.7	68	(53.7)	43	48	(43)	22	27	(22)
10	52.4	60	48.8	63	(48.8)	45.8	60	(45.8)	40	45	(40)	15	20	(15)
16	47.7	56	44.7	59	(44.7)	41.7	56	(41.7)	37	42	(37)	10	15	(10)
20	45.4	54	42.7	57	(42.7)	39.7	54	(39.7)	36	41	(36)	8	13	(8)
31.25	40.3	49	38.9	53	(38.9)	35.9	50	(35.9)	35	40	(35)	—	—	(—)
62.5	31.1	39	32.8	47	(32.8)	29.8	44	(29.8)	32	37	(32)	—	—	(—)
100	23.6	32	28.8	43	(28.8)	25.8	40	(25.8)	30	35	(30)	—	—	(—)
155	15.5	24	24.9	39	(24.9)	21.9	36	(21.9)	28	33	(28)	—	—	(—)
200	10.0	19	22.7	37	(22.7)	19.7	34	(19.7)	26	31	(26)	—	—	(—)
250	4.7	13	20.8	35	(20.8)	17.8	32	(17.8)	—	—	(—)	—	—	(—)
350	—	—	—	—	(—)	—	—	(—)	—	—	(—)	—	—	(—)
500	—	—	—	—	(—)	—	—	(—)	—	—	(—)	—	—	(—)

PREMIUM CATEGORY 5E | UTP/4 PAIR | LANMARK-350™

- Horizontal and Patch Cable
- Tested to 350 MHz
- Riser and Plenum Rated
- Limited Combustible (CMP-50) available

Berk-Tek
A NEXANS COMPANY

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

Berk-Tek's LANmark-350 Premium Category 5e UTP cables are designed to meet the most advanced UTP horizontal cable applications. Tested up to 350 MHz, the guaranteed performance of this cable far exceeds the ANSI/TIA/EIA-568-B.1 and B.2 and ISO/IEC 11801 horizontal cable requirements for PS-NEXT, attenuation, Return Loss, attenuation-to-crosstalk ratio (ACR) and impedance, making it ideal for high-end transmission links supporting the most sophisticated networking protocols.

CONSTRUCTION

0.52 mm (24 AWG), bare copper wire insulated with polyethylene (non-plenum) or FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs laid up to form the basic unit jacketed with flame-retardant PVC.

STANDARDS

North American	ANSI/TIA/EIA-568-B.2 Category 5e
International	ISO/IEC 11801 Category 5
European	EN 50173

FLAME RATING

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

APPLICATIONS

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

IEEE 802.3 1000BASE-T, 100BASE-TX, 10BASE-T
155 Mb/s ATM
ANSI X3.263 100Mb/s
4/16 Mb/s Token Ring

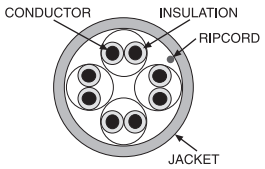
FEATURES

- ACR, PS-NEXT, Attenuation, RL are specified and tested to 350 MHz
- Guaranteed 0.5-2.0 dB better RL than Category 5e standard
- ETL verified to TIA/EIA-568-B.2 and ISO/IEC 11801

BENEFITS

- Warranted simplified structured cabling solution preserves long-term network investment
- Reduced installation costs and maintenance
- Enhanced bandwidth cable system
- Lower Bit Error Rates, increases network efficiency and uptime

PREMIUM CATEGORY 5E | UTP/4 PAIR | LANMARK-350™



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TECHNICAL DATA—PHYSICAL

	CMR		CMP		CM (PATCH)*	
Conductor diameter–in. (mm)	.020	(0.52)	.020	(0.52)	.024	(0.61)
Cable diameter–in. (mm)	.187	(4.8)	.165	(4.2)	.215	(5.5)
Nominal cable weight–lb./kft. (kg/km)	22	(33)	21	(31)	23	(34.5)
Max. installation tension–lb. (N)	25	(110)	25	(110)	25	(110)
Min. bend radius–in. (mm)	1.0	(25.4)	1.0	(25.4)	1.0	(25.4)

* Patch cables utilize stranded tinned copper conductors.

PARAMETRIC MEASUREMENTS

	HORIZONTAL	PATCH
Mutual Capacitance	4.4 nF/100 m nom.	4.4 nF/100 m nom.
DC resistance	9.38 Ohms/100 m max.	9.09 Ohms/100 m max.
Skew	25 ns/100 m max.	25 ns/100 m max.
Pair to ground Unbalance	330 pF/100 m max.	330 pF/100 m max.
Velocity of Propagation	70% nom. Non-Plenum 72% nom. Plenum	70% nom.
Input Impedance	100 ± 14% 0.772-100 MHz 100 ± [14+15log (F/100)] 100-500 MHz ISO/IEC 11801	100 ± 14% 0.772-100 MHz 100 ± [14+15log (F/100)] 100-500 MHz

TEMPERATURE RATING

INSTALLATION	0°C to +50°C
OPERATION	-10°C to +60°C

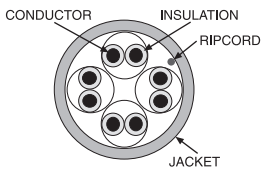
COLOR CODE

PAIR 1	White/Blue	Blue
PAIR 2	White/Orange	Orange
PAIR 3	White/Green	Green
PAIR 4	White/Brown	Brown

PART NUMBERS—PREMIUM CATEGORY 5E UTP

NO. PAIRS	PART NUMBER	JACKET	FLAME RATING	JACKET COLOR
4	10032419	PVC	CMR Riser	Yellow
4	10032426	PVC	CMR Riser	Blue
4	10032428	PVC	CMR Riser	Green
4	10032434	PVC	CMR Riser	White
4	10032447	PVC	CMR Riser	Gray
4	10032638	PVC	CM Patch	Yellow
4	10032640	PVC	CM Patch	Blue
4	10032644	PVC	CM Patch	White
4	10032646	PVC	CM Patch	Red
4	10032648	PVC	CM Patch	Green
4	10032650	PVC	CM Patch	Gray
4	10032060	PVC Alloy	CMP Plenum	Yellow
4	10032065	PVC Alloy	CMP Plenum	Blue
4	10032072	PVC Alloy	CMP Plenum	White
4	10032079	PVC Alloy	CMP Plenum	Gray
4	10032086	PVC Alloy	CMP Plenum	Green
4	10034867	FEP	CMP-50	Clear

Note: Standard Lengths: 1,000 feet (305 meters.) Specifications subject to change without notice. Part numbers shown here are for Tek-Pak boxes. Also available on reels or reel-in-a-box. Limited Combustible version (CMP-50 rating) also available. Other jacket colors available.



- Horizontal and Patch Cable
- Tested to 350 MHz
- Riser and Plenum Rated
- Limited Combustible (CMP-50) available

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TECHNICAL DATA—ELECTRICAL (Patch cable values appear in parentheses)

HORIZONTAL															
FREQ	SRL (dB)			RL (dB)			INSERTION LOSS (ATTENUATION) (dB)			PS-NEXT (dB)			NEXT (dB)		
MHz	MIN.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH	MAX.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH
1	25.5	41.6	(25.5)	20.0	33.9	(20)	2.0	1.9	(2.4)	68.3	87.6	(68.3)	70.3	89.6	(70.3)
4	25.5	43.7	(25.5)	23.3	31.6	(23.3)	4.0	3.8	(4.8)	59.9	76.1	(59.9)	61.9	78.1	(61.9)
10	25.5	44.9	(25.5)	25.5	36.8	(25.5)	6.4	6.0	(7.7)	53.3	68.9	(53.3)	55.3	70.9	(55.3)
16	25.5	42.3	(25.5)	25.5	39.8	(25.5)	8.1	7.7	(9.7)	50.3	64.7	(50.3)	52.3	66.7	(52.3)
20	25.5	42.0	(25.5)	25.5	39.1	(25.5)	9.2	8.6	(11)	48.8	64.2	(48.8)	50.8	66.2	(50.8)
31.25	24.4	39.5	(24.4)	24.4	38.3	(24.4)	11.6	10.9	(13.9)	45.9	62.1	(45.9)	47.9	64.1	(47.9)
62.5	22.7	38.3	(22.7)	22.7	36.4	(22.7)	16.8	15.7	(20.2)	41.4	56.2	(41.4)	45.4	58.2	(43.4)
100	21.5	35.7	(21.5)	21.5	34.6	(21.5)	21.7	20.1	(26)	38.3	52.9	(38.3)	40.3	54.9	(40.3)
155	20.4	35.7	(20.4)	20.4	33.9	(20.4)	27.7	25.5	(33.2)	35.5	49.7	(35.5)	37.5	51.7	(37.5)
200	19.8	36.0	(19.8)	19.8	33.8	(19.8)	32.1	29.3	(38.5)	33.8	47.2	(33.8)	35.8	49.2	(35.8)
300	18.8	33.3	(18.8)	18.8	31.7	(18.8)	40.5	33.2	(48.6)	31.2	45.5	(31.2)	33.2	47.5	(33.2)
350	18.4	36.1	(18.4)	18.4	34.8	(18.4)	44.4	39.9	(53.3)	30.2	45.8	(30.2)	32.2	47.8	(32.2)

TECHNICAL DATA—ELECTRICAL (Patch cable values appear in parentheses)

HORIZONTAL												
FREQ	ACR (dB)			PS-ACR (dB)			ELFEXT (dB)			PS-ELFEXT (dB)		
MHz	MIN.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH	MIN.	TYPICAL	PATCH
1	68.3	83.3	(—)	66.3	81.5	(—)	66.8	83.3	(66.8)	63.8	77.4	(63.8)
4	57.3	71.8	(—)	55.3	69.7	(—)	54.7	72.4	(54.7)	52.7	66.1	(52.7)
10	48.9	63.1	(—)	46.9	59.9	(—)	46.8	64.5	(46.8)	44.8	58.2	(44.8)
16	44.1	57.2	(—)	42.1	54.9	(—)	42.7	60.0	(42.7)	40.7	53.8	(40.7)
20	41.6	54.9	(—)	39.6	52.9	(—)	40.7	58.0	(40.7)	38.7	51.7	(38.7)
31.25	36.3	49.4	(—)	34.3	47.5	(—)	36.9	54.0	(36.9)	34.9	48.1	(34.9)
62.5	26.6	38.9	(—)	24.6	37.2	(—)	30.8	48.6	(30.8)	28.8	41.9	(28.8)
100	18.6	32.0	(—)	16.6	30.1	(—)	26.8	46.2	(26.8)	24.8	38.6	(24.8)
155	9.7	23.6	(—)	7.7	21.5	(—)	23.0	40.9	(23.0)	20.0	33.6	(20.0)
200	3.7	18.0	(—)	1.7	15.6	(—)	20.7	39.6	(20.7)	17.7	31.1	(17.7)
300	—	11.5	(—)	—	9.7	(—)	—	35.4	(—)	—	28.1	(—)
350	—	4.8	(—)	—	2.4	(—)	—	35.4	(—)	—	25.2	(—)

- Horizontal Cable
- Tested to 350 MHz
- Riser and Plenum Rated
- Limited Combustible (CMP-50) available

Berk-Tek
A NEXANS COMPANY

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Berk-Tek's LANmark-100, 350 MHz Enhanced Category 5e UTP cables are designed for horizontal applications in a structured cabling network to connect between the user outlet and horizontal cross-connect. LANmark-100 is a cost effective choice that provides performance beyond the TIA/EIA Category 5e standard.

CONSTRUCTION

0.52 mm (24 AWG), bare copper wire insulated with polyethylene (non-plenum) or FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs laid up to form the basic unit jacketed with flame-retardant PVC.

STANDARDS

North American	ANSI/TIA/EIA-568-B.2 Category 5e and Category 5
International	ISO/IEC 11801 Category 5
European	EN 50173

FLAME RATING

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

APPLICATIONS

Berk-Tek's LANmark-100, 350 MHz Enhanced Category 5e UTP cable is intended for high speed data applications including:

ATM 155 Mb/s
ANSI X3.263 100 Mb/s
Ethernet 100BASE-TX, 100BASE-VG, 10BASE-T, 1000BASE-T
Token Ring

FEATURES

- Supports 10BASE-T, 100BASE-TX Fast Ethernet, Gigabit Ethernet, Token Ring, TP-PMD, Voice, Telephony, Multimedia, 155 Mb/s ATM
- Tested and guaranteed improved NEXT, ACR, PS-NEXT, PS-ACR, ELFEXT, PS-ELFEXT, and RL
- ETL Verified to TIA/EIA-568-B.2 Category 5e

BENEFITS

- Universally accepted design for global commercial network installations
- Simplified structured cabling solution preserving long-term network investment
- Warranted, trouble-free cabling installation and maintenance

TECHNICAL DATA—PHYSICAL

	CMR		CMP	
Conductor diameter–in. (mm)	.020	(0.52)	.020	(0.52)
Cable diameter–in. (mm)	.195	(5.0)	.165	(4.2)
Nominal cable weight–lb./kft. (kg/km)	21	(31)	21	(31)
Max. installation tension–lb. (N)	25	(110)	25	(110)
Min. bend radius–in. (mm)	1.0	(25.4)	1.0	(25.4)

* Patch cables utilize stranded tinned copper conductors.

PARAMETRIC MEASUREMENTS

	HORIZONTAL
Mutual Capacitance	4.6 nF/100 m nom.
DC resistance	9.38 Ohms/100 m max.
Skew	25 ns/100 m max.
Velocity of Propagation	72% nom. Non-Plenum / 72% nom. Plenum

INPUT IMPEDANCE

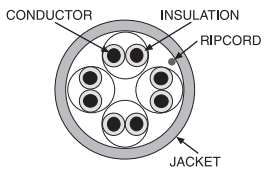
FREQUENCY MHz	HORIZONTAL	
	UPPER LIMIT	LOWER LIMIT
100	115	85
155	118	82
200	119	81
300	122	78
350	124	76

COLOR CODE

PAIR 1	White/Blue	Blue
PAIR 2	White/Orange	Orange
PAIR 3	White/Green	Green
PAIR 4	White/Brown	Brown

TEMPERATURE RATING

INSTALLATION	0°C to +50°C
OPERATION	-10°C to +60°C



- Horizontal Cable
- Tested to 350 MHz
- Riser and Plenum Rated
- Limited Combustible (CMP-50) available

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TECHNICAL DATA—ELECTRICAL (Patch cable values appear in parentheses)

HORIZONTAL								
FREQUENCY	RL	INSERTION LOSS (ATTENUATION)	PS-NEXT	NEXT	ACR	PS-ACR	ELFEXT	PS-ELFEXT
MHz	dB/100 m	dB/100 m	dB/100 m	dB/100 m	dB/100 m	dB/100 m	dB/100 m	dB/100 m
	MIN.	MAX.	MIN.	MIN.	MIN.	MIN.	MIN.	MIN.
1	20.0	2.0	65.3	68.3	66.3	63.3	66.8	63.8
4	23.0	4.1	56.2	59.3	55.4	52.3	54.7	51.7
10	25.0	6.5	50.3	53.3	47.0	43.9	46.8	43.8
16	25.0	8.2	47.3	50.3	42.3	39.1	42.7	39.7
20	25.0	9.3	45.8	48.8	39.8	36.6	40.7	32.7
31.25	23.6	11.7	42.9	45.9	34.5	33.3	36.9	33.9
62.5	21.5	17.0	38.4	41.4	24.9	21.6	30.8	27.8
100	20.1	22.0	38.3	38.3	18.0	16.0	26.8	23.8
155	19.0	28.1	32.5	35.5	8.2	6.2	22.9	19.9
200	19.0	32.4	30.8	33.8	2.7	0.7	20.7	17.7
300	18.0	41.0	29.3	32.3	—	—	—	—
350	17.0	44.9	27.2	30.2	—	—	—	—

Values above 155 MHz provided for reference.

PART NUMBERS—ENHANCED CATEGORY 5E UTP

NO. PAIRS	PART NUMBER	JACKET	FLAME RATING	JACKET COLOR
4	10043050	PVC	CMR Riser	Gray
4	10043028	PVC	CMR Riser	Blue
4	10043025	PVC	CMR Riser	Yellow
4	10043046	PVC	CMR Riser	White
4	10043032	PVC	CMR Riser	Green
4	10043061	PVC Alloy	CMP Plenum	Gray
4	10043058	PVC Alloy	CMP Plenum	White
4	10043055	PVC Alloy	CMP Plenum	Blue
4	10043064	PVC Alloy	CMP Plenum	Green
4	10043052	PVC Alloy	CMP Plenum	Yellow
4	10044862	FEP	CMP-50	Clear

Note: Standard Lengths: 1,000 feet (305 meters.) Specifications subject to change without notice. Part numbers shown are for Tek-Pak boxes. Also available on reels or reel-in-a-box. Limited Combustible version (CMP-50 rating) also available. Other jacket colors available.

- Horizontal and Patch Cable
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- Riser and Plenum Rated
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Berk-Tek
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Berk-Tek's Hyper Plus 5e Standard Category 5e UTP cables are designed for horizontal applications in a structured cabling network to connect between the user outlet and horizontal cross-connect.

CONSTRUCTION

0.52 mm (24 AWG), bare copper wire insulated with polyethylene (non-plenum) or FEP (plenum). Two insulated conductors twisted together to form a pair and four such pairs laid up to form the basic unit jacketed with flame-retardant PVC.

STANDARDS

North American	ANSI/TIA/EIA-568-B.2 Category 5e and Category 5
International	ISO/IEC 11801 Category 5
European	EN 50173

FLAME RATING

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

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, 100BASE-TX, 10BASE-T
155 Mb/s ATM
ANSI X3.263 100Mb/s
4/16 Mb/s Token Ring

FEATURES

- Supports 10BASE-T, 100BASE-TX, Fast Ethernet, Gigabit Ethernet, Token Ring, TP-PMD, Voice, Telephony, Multimedia, 155 Mb/s ATM
- Tested and guaranteed improved NEXT, ACR, PS-NEXT, PS-ACR, ELFEXT, PS-ELFEXT, RL and SRL
- ETL Verified to TIA/EIA-568-B.2 Category 5e

BENEFITS

- Universally accepted design for global commercial network installations
- Simplified structured cabling solution preserving long-term network investment
- Warranted, trouble-free cabling installation and maintenance

TECHNICAL DATA—PHYSICAL

	CMR		CMP		CM (PATCH)*	
Conductor diameter–in. (mm)	.020	(0.52)	.020	(0.52)	.024	(0.61)
Cable diameter–in. (mm)	.195	(5.0)	.165	(4.2)	.215	(5.5)
Nominal cable weight–lb./kft. (kg/km)	21	(31)	21	(31)	23	(34.2)
Max. installation tension–lb. (N)	25	(110)	25	(110)	25	(110)
Min. bend radius–in. (mm)	1.0	(25.4)	1.0	(25.4)	1.0	(25.4)

* Patch cables utilize stranded tinned copper conductors.

PARAMETRIC MEASUREMENTS

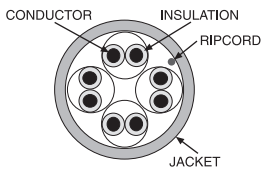
	HORIZONTAL	PATCH
Mutual Capacitance	4.6 nF/100 m nom.	5.6 nF/100 m nom.
DC resistance	9.38 Ohms/100 m max.	9.09 Ohms/100 m max.
Skew	45 ns/100 m max.	45 ns/100 m max.
Velocity of Propagation	72% nom. Non-Plenum 72% nom. Plenum	72% nom.
Input Impedance	100 ± 15% 0.772-100 MHz ISO/IEC 11801	100 ± 15% 0.772-100 MHz

COLOR CODE

PAIR 1	White/Blue	Blue
PAIR 2	White/Orange	Orange
PAIR 3	White/Green	Green
PAIR 4	White/Brown	Brown

TEMPERATURE RATING

INSTALLATION	0°C to +50°C
OPERATION	-10°C to +60°C



- Horizontal and Patch Cable
- Tested to 100 MHz
- Riser and Plenum Rated
- Limited Combustible (CMP-50) available

Berk-Tek
A NEXANS COMPANY

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

TECHNICAL DATA—ELECTRICAL (Patch cable values appear in parentheses)

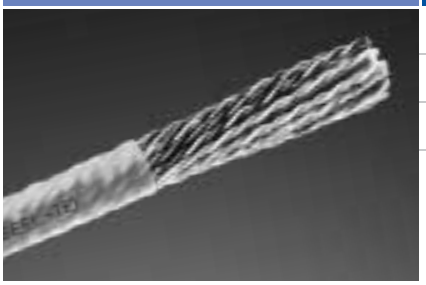
HORIZONTAL								
FREQUENCY	RL (dB)	(dB/100M) INSERTION LOSS (ATTENUATION)	PS-NEXT (dB)	NEXT (dB)	ACR (dB)	PS-ACR (dB)	ELFEXT (dB)	PS-ELFEXT (dB)
MHz	MIN.	MAX.	MIN.	MIN.	MIN.	MIN.	MIN.	MIN.
1	20.0 (20.0)	2.0 (2.4)	62.3 (62.3)	65.3 (65.3)	63.2	60.3	63.8 (63.8)	60.8 (60.8)
4	23.0 (23.0)	4.1 (4.9)	53.2 (53.2)	56.2 (56.2)	52.1	49.1	51.7 (51.7)	48.7 (48.7)
10	25.0 (25.0)	6.5 (7.8)	47.3 (47.3)	50.3 (50.3)	43.8	40.8	43.8 (43.8)	40.8 (40.8)
16	25.0 (25.0)	8.2 (9.8)	44.2 (44.2)	47.2 (47.2)	39.0	36.0	39.7 (39.7)	36.6 (36.6)
20	25.0 (25.0)	9.3 (11.1)	42.7 (42.7)	45.7 (45.7)	36.4	33.4	37.7 (37.7)	34.7 (34.7)
31.25	23.6 (23.6)	11.7 (14.1)	39.8 (39.8)	42.8 (42.8)	31.1	28.1	33.9 (33.9)	30.9 (30.9)
62.5	21.5 (21.5)	17.0 (20.4)	35.3 (35.3)	38.3 (38.3)	21.3	18.3	27.8 (27.8)	24.8 (24.8)
100	20.1 (20.1)	22.0 (26.4)	32.3 (32.3)	35.3 (35.3)	13.3	10.3	23.8 (23.9)	20.8 (20.8)

PART NUMBERS—STANDARD CATEGORY 5E UTP

NO. PAIRS	PART NUMBER	JACKET	FLAME RATING	JACKET COLOR
4	10032510	PVC	CMR Riser	Gray
4	10032528	PVC	CMR Riser	Blue
4	10032531	PVC	CMR Riser	Yellow
4	10032535	PVC	CMR Riser	White
4	10032539	PVC	CMR Riser	Green
4	10032706	PVC	CM Patch	Black
4	10032708	PVC	CM Patch	Red
4	10032710	PVC	CM Patch	Green
4	10032712	PVC	CM Patch	Yellow
4	10032714	PVC	CM Patch	Blue
4	10032715	PVC	CM Patch	Violet
4	10032717	PVC	CM Patch	White
4	10032719	PVC	CM Patch	Gray
4	10032207	PVC Alloy	CMP Plenum	Gray
4	10032223	PVC Alloy	CMP Plenum	White
4	10032227	PVC Alloy	CMP Plenum	Blue
4	10032232	PVC Alloy	CMP Plenum	Green
4	10032235	PVC Alloy	CMP Plenum	Yellow
4	10034866	FEP	CMP-50	Clear

Note: Standard Lengths: 1,000 feet (305 meters.) Specifications subject to change without notice. Part numbers shown are for Tek-Pak boxes. Also available on reels or reel-in-a-box. Limited Combustible version (CMP-50 rating) also available. Other jacket colors available.

CATEGORY 5E | UTP/24 PAIR | POWER SUM



- Backbone Cable
- Voice and Data Applications
- Riser and Plenum Rated

Berk-Tek
A NEXANS COMPANY

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

Berk-Tek's Power Sum Category 5e, 24 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.

CONSTRUCTION

0.52 mm (24 AWG), 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).

STANDARDS

European	EN 50173
North American	ANSI/TIA/EIA-568-B.2 Category 5e Backbone

FLAME RATING

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

APPLICATIONS

Berk-Tek's 24 pair Power Sum Category 5e cable is intended for voice and data applications including:

ATM 155 Mb/s
ANSI X3.263 100 Mb/s
Ethernet 10BASE-T, 100BASE-TX
Token Ring

FEATURES

- ETL verified ANSI/TIA/EIA-568-B.2 Category 5e Backbone Cable Power Sum Performance
- Small diameter and flexible construction with stable cable geometry
- Supports 10BASE-T, 100BASE-TX, Token Ring, Voice, 155 Mb/s ATM
- Ideally suited for backbone, cross-connect and pre-connectorized assemblies

BENEFITS

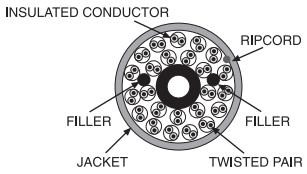
- Simplified structured cabling solution preserving long-term network investment
- Supports current and future networking protocols
- High-performance multi-pair cable assemblies compatible with today's most common network types.

COLOR CODE

PAIR 1	White/Blue	Blue/White
PAIR 2	White/Orange	Orange/White
PAIR 3	White/Green	Green/White
PAIR 4	White/Brown	Brown/White
PAIR 5	White/Gray	Gray/White
PAIR 6	Red/Blue	Blue/Red
PAIR 7	Red/Orange	Orange/Red
PAIR 8	Red/Green	Green/Red
PAIR 9	Red/Brown	Brown/Red
PAIR 10	Red/Gray	Gray/Red
PAIR 11	Black/Blue	Blue/Black
PAIR 12	Black/Orange	Orange/Black
PAIR 13	Black/Green	Green/Black
PAIR 14	Black/Brown	Brown/Black
PAIR 15	Black/Gray	Gray/Black
PAIR 16	Yellow/Blue	Blue/Yellow
PAIR 17	Yellow/Orange	Orange/Yellow
PAIR 18	Yellow/Green	Green/Yellow
PAIR 19	Yellow/Brown	Brown/Yellow
PAIR 20	Yellow/Gray	Gray/Yellow
PAIR 21	Violet/Blue	Blue/Violet
PAIR 22	Violet/Orange	Orange/Violet
PAIR 23	Violet/Green	Green/Violet
PAIR 24	Violet/Brown	Brown/Violet

TEMPERATURE RATING

INSTALLATION	0°C to +50°C
OPERATION	-10°C to +60°C



- Backbone Cable
- Voice and Data Applications
- Riser and Plenum Rated

Berk-Tek
A NEXANS COMPANY

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

TECHNICAL DATA—PHYSICAL

	CMR		CMP	
Conductor diameter–in. (mm)	.021	(0.55)	.021	(0.55)
Cable diameter–in. (mm)	.500	(12.7)	.460	(11.7)
Bend radius–in. (mm)	3.0	(76.2)	6.9	(175)
Mutual Capacitance, nF/100 m nom.	5.6		5.6	
DC resistance, Ohms/100 m max.	9.4		9.4	
Nominal Velocity of Propagation %	69		72	
Characteristic Impedance (Ohms)	100 ± 15		100 ± 15	
Cable weight–lb./kft. (kg/km)	126	(188)	137	(204)
Delay Skew nsec	45		45	

TECHNICAL DATA—ELECTRICAL

FREQUENCY	INSERTION LOSS (ATTENUATION)	RL	SRL	PS-NEXT	NEXT	ELFEXT	PS-ELFEXT
MHz	dB/100 m	dB	dB	dB	dB	dB	dB
	MAX.	MIN.	MIN.	MIN.	MIN.	MIN.	MIN.
1	2.0	20.0	25.0	62.3	65.3	63.8	60.8
4	4.1	23.0	25.0	53.2	56.3	51.7	48.7
10	6.5	25.0	25.0	47.3	50.3	43.8	40.8
16	8.2	25.0	25.0	44.2	47.3	39.7	36.7
20	9.3	25.0	25.0	42.7	45.8	37.7	34.7
31.25	11.7	23.6	23.6	39.8	42.9	33.9	30.9
62.5	17.0	21.5	21.5	35.3	38.4	27.8	24.8
100	22.0	20.1	20.1	32.3	35.3	23.8	20.8

PART NUMBERS—CATEGORY 5E UTP

NO. PAIRS	PART NO.	SHEATH	FLAME RATING	JACKET COLOR
24	10043407	PVC	CMR Riser	Gray
24	10043245	Fluoropolymer	CMP Plenum	Gray

Note: Standard Lengths: 1,000 feet (305 meters). Specifications subject to change without notice. Available on reels only.

- Backbone Cable
- Riser Rated
- Plenum Rated
- Limited Combustible (CMP-50) available

Berk-Tek
A NEXANS COMPANY

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

Berk-Tek's Category 3 UTP Power Sum cables are designed for use with voice applications as backbone cables. These cables are used for applications to support building backbone service. They also can be used for interconnecting satellite wiring closets.

CONSTRUCTION

0.51 mm (24 AWG), bare copper wire insulated with thermoplastic. Three layer core construction jacketed in flame-retardant PVC.

STANDARDS

European	EN 50173
North American	ANSI/TIA/EIA-568-A

FLAME RATING

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

APPLICATIONS

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

Ethernet 10BASE-T
Token Ring 4 Mb/s
Voice

FEATURES

- UL verified ANSI/TIA/EIA-568-A Category 3 Backbone Cable
- Supports 10BASE-T, Token Ring, Voice, Telephony
- Ideally suited for backbone, cross-connect and pre-connectorized assemblies

BENEFITS

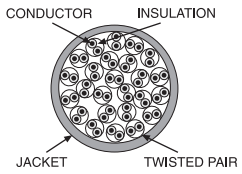
- Assurance that every link will meet the most demanding transmission requirements
- Reduced cable routing time allowing for lower cost of installation and testing
- Simplified structured cabling solution preserving long-term network investment

COLOR CODE

PAIR 1	White/Blue	Blue/White
PAIR 2	White/Orange	Orange/White
PAIR 3	White/Green	Green/White
PAIR 4	White/Brown	Brown/White
PAIR 5	White/Gray	Gray/White
PAIR 6	Red/Blue	Blue/Red
PAIR 7	Red/Orange	Orange/Red
PAIR 8	Red/Green	Green/Red
PAIR 9	Red/Brown	Brown/Red
PAIR 10	Red/Gray	Gray/Red
PAIR 11	Black/Blue	Blue/Black
PAIR 12	Black/Orange	Orange/Black
PAIR 13	Black/Green	Green/Black
PAIR 14	Black/Brown	Brown/Black
PAIR 15	Black/Gray	Gray/Black
PAIR 16	Yellow/Blue	Blue/Yellow
PAIR 17	Yellow/Orange	Orange/Yellow
PAIR 18	Yellow/Green	Green/Yellow
PAIR 19	Yellow/Brown	Brown/Yellow
PAIR 20	Yellow/Gray	Gray/Yellow
PAIR 21	Violet/Blue	Blue/Violet
PAIR 22	Violet/Orange	Orange/Violet
PAIR 23	Violet/Green	Green/Violet
PAIR 24	Violet/Brown	Brown/Violet
PAIR 25	Violet/Gray	Gray/Violet

TEMPERATURE RATING

INSTALLATION	0°C to +50°C
OPERATION	-10°C to +60°C



- Patch Cable
- Riser Rated
- Plenum Rated
- Limited Combustible (CMP-50) available

Berk-Tek
A NEXANS COMPANY

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

TECHNICAL DATA—PHYSICAL

	25 PR (CMR)	25 PR (CMP)	50 PR (CMR)	50 PR (CMP)	100 PR (CMR)	100 PR (CMP)
Mutual Capacitance, nF/100 m nom.	6.6	6.6	6.6	6.6	6.6	6.6
DC Resistance, Ohms/100 m max.	9.4	9.4	9.4	9.4	9.4	9.4
Conductor diameter—in. (mm)	0.02 (0.51)	0.02 (0.51)	0.02 (0.51)	0.02 (0.51)	0.02 (0.51)	0.02 (0.51)
Cable diameter—in. (mm)	.390 (9.9)	.382 (9.7)	.525 (13.3)	.496 (12.59)	.895 (22.72)	.889 (22.57)

	200 PR (CMR)	200 PR (CMP)	300 PR (CMR)	300 PR (CMP)
Mutual Capacitance, nF/100 m nom.	6.6	6.6	6.6	6.6
DC Resistance, Ohms/100 m max.	9.4	9.4	9.4	9.4
Conductor diameter—in. (mm)	0.02 (0.51)	0.02 (0.51)	0.02 (0.51)	0.02 (0.51)
Cable diameter—in. (mm)	1.123 (28.51)	1.012 (25.69)	1.314 (33.36)	1.27 (32.25)

TECHNICAL DATA—ELECTRICAL

FREQUENCY	ATTENUATION	SRL	PS-NEXT
MHz	dB/100 m	dB	dB
	MAX.	MIN.	MIN.
1	2.6	12	41
4	5.6	12	32
10	9.8	12	28
16	13.1	10	26

PART NUMBERS—CATEGORY 3

NO. PAIRS	PART NUMBER	SHEATH	FLAME RATING	JACKET COLOR
25	10032036	PVC	CMP	Blue
25	10032396	PVC	CMR	Gray
25	10032111	PVC	CMP	Gray
50	10032471	PVC	CMR	Gray
50	10032112	PVC	CMP	Gray
100	10032472	PVC	CMR	Gray
100	10032113	PVC	CMP	Gray
200	10032493	PVC	CMR	Gray
200	10032123	PVC	CMP	Gray
300	10032494	PVC	CMR	Gray
300	10032124	PVC	CMP	Gray

Note: Standard Lengths: 1,000 feet (305 meters). Specifications subject to change without notice.

MULTI-PAIR CATEGORY 3 | UTP/400 PAIR | POWER SUM

- Backbone Cable
- Riser Rated
- Plenum Rated
- Limited Combustible (CMP-50) available

Berk-Tek
A NEXANS COMPANY

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

Berk-Tek's Type III, Multi-pair, UTP cables are designed for use in voice applications as backbone cables. These cables are used for applications to support building backbone service. They also can be used for interconnecting satellite wiring closets.

CONSTRUCTION

0.51 mm (24 AWG), bare copper wire insulated with thermoplastic. Three layer core construction jacketed with PVDF fluoropolymer (plenum).

STANDARDS

European	EN 50173
UL	444

FLAME RATING

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

APPLICATIONS

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

FEATURES

- Small diameter and flexible construction with stable cable geometry
- Supports Voice Telephony
- Ideally suited for backbone, cross-connect and pre-connectorized assemblies

BENEFITS

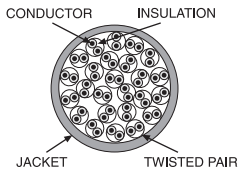
- Assurance that every link will meet the most demanding transmission requirements
- Reduced cable routing time allowing for lower cost of installation and testing
- Simplified structured cabling solution preserving long-term network investment

COLOR CODE

PAIR 1	White/Blue	Blue/White
PAIR 2	White/Orange	Orange/White
PAIR 3	White/Green	Green/White
PAIR 4	White/Brown	Brown/White
PAIR 5	White/Gray	Gray/White
PAIR 6	Red/Blue	Blue/Red
PAIR 7	Red/Orange	Orange/Red
PAIR 8	Red/Green	Green/Red
PAIR 9	Red/Brown	Brown/Red
PAIR 10	Red/Gray	Gray/Red
PAIR 11	Black/Blue	Blue/Black
PAIR 12	Black/Orange	Orange/Black
PAIR 13	Black/Green	Green/Black
PAIR 14	Black/Brown	Brown/Black
PAIR 15	Black/Gray	Gray/Black
PAIR 16	Yellow/Blue	Blue/Yellow
PAIR 17	Yellow/Orange	Orange/Yellow
PAIR 18	Yellow/Green	Green/Yellow
PAIR 19	Yellow/Brown	Brown/Yellow
PAIR 20	Yellow/Gray	Gray/Yellow
PAIR 21	Violet/Blue	Blue/Violet
PAIR 22	Violet/Orange	Orange/Violet
PAIR 23	Violet/Green	Green/Violet
PAIR 24	Violet/Brown	Brown/Violet
PAIR 25	Violet/Gray	Gray/Violet

TEMPERATURE RATING

INSTALLATION	0°C to +50°C
OPERATION	-10°C to +60°C



- Backbone Cable
- Riser Rated
- Plenum Rated
- Limited Combustible (CMP-50) available

Berk-Tek
A NEXANS COMPANY
www.berktek.com
1-800-237-5835

TECHNICAL DATA—PHYSICAL

	400 PR (CMR)	400 PR (CMP)
Mutual Capacitance, nF/100 m nom.	6.6	6.6
DC Resistance, Ohms/100 m max.	9.4	9.4
Conductor diameter—in. (mm)	0.02 (0.51)	0.02 (0.51)
Cable diameter—in. (mm)	1.652 (41.94)	1.545 (39.23)

TECHNICAL DATA—ELECTRICAL

FREQUENCY	ATTENUATION	SRL	PS-NEXT
MHz	dB/100 m	dB	dB
	MAX.	MIN.	MIN.
1	2.6	12	41
4	5.9	12	32
10	10.9	12	28
16	15.3	10	26

PART NUMBERS—CATEGORY 3

NO. PAIRS	PART NUMBER	SHEATH	FLAME RATING	JACKET COLOR
400	10034978	PVC	CMR	Gray
400	10032116	PVDF	CMP	Gray

Note: Standard Lengths: 1,000 feet (305 meters). Specifications subject to change without notice.

GUIDE TO OPTICAL FIBER CHOICES

In our ever changing world, where evolving user needs and upgrades in network technologies can quickly obsolete an entire network, choosing the right optical fiber technology for your network is critical. And not all optical fiber has ability to support the most advanced technologies or link distances that are common in today's enterprise networks.

Berk-Tek's GIGAlite is a breakthrough in optical fiber technology with guaranteed performance that far surpasses every current and proposed fiber optic technology. GIGAlite delivers the high bandwidth, low attenuation and distance specifications that will support any communications protocol and application—current and future.

In addition to our standard 62.5/125 µm multi-mode optical fiber, Berk-Tek offers two different grades of GIGAlite optical fibers: GIGAlite and GIGAlite-10.

Because of its superior bandwidth and channel capacity, both versions of GIGAlite are 50/125 µm multi-mode optical fibers.

GIGAlite offers extended Gigabit Ethernet distance guarantees of 600 meters and 2000 meters for 1000BASE-SX (850 nm) and 1000BASE-LX (1300 nm) respectively.

GIGAlite-10 offers Gigabit Ethernet support of 1000 meters at 850 nm and guarantees 300 meter support for serial 10 Gigabit Ethernet transmission at 850 nm.

With all of the choices available for your optical fiber needs how do you choose which is right for your installation?

The answer depends on your current and anticipated network speeds, as well as the distances at which they will be running. The table above indicates the best fiber choice for the network type and distance. In this table the fiber type listed for any network type will support the next lowest network speed at the same distance. For instance, for a link distance of 300 meters, 50 mm GIGAlite-10 will support 10 Gigabit Ethernet as well as Gigabit Ethernet and Fast Ethernet.

When selecting the fiber type that you will need, consider both the current network speed and distances that must be supported, as well as the probability that the network will need to be upgraded in the lifetime of the cabling system.

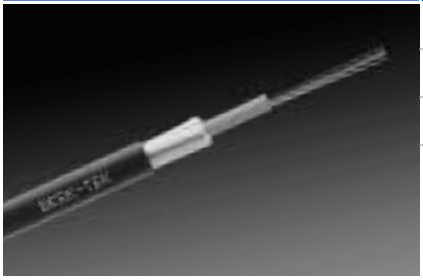
Berk-Tek recommends that the fiber type chosen should support the next highest network speed at the time of installation to provide for seamless support. For example, if your current campus backbone consists of a Fast Ethernet connection over a 500 m (1640 ft) link, Berk-Tek recommends that 50 micron GIGAlite optical fiber be installed to support both current and future needs.

For technical assistance in selecting the best optical fiber solution for your application, call 1-800-BERK-TEK or visit www.berktek.com.

OPTICAL FIBER SELECTION GUIDE—BEST VALUE @ 850 nm

DISTANCE	10 GIGABIT ETHERNET	1 GIGABIT ETHERNET	FAST ETHERNET (100 MBPS)
Up to 300 m (984 ft)	50 µm GIGAlite-10 @ 850 nm	62.5 µm — standard @ 850 nm	62.5 µm — standard @ 850 nm
Up to 600 m (1968 ft)	Singlemode @ 1310 nm	50 µm GIGAlite™ @ 850 nm	62.5 µm — standard @ 1300 nm
Up to 1000 m (3280 ft)	Singlemode @ 1310 nm	50 µm GIGAlite-10 @ 850 nm	62.5 µm — standard @ 1300 nm
Greater than 1000 m (3280 ft)	Singlemode @ 1310 nm	Singlemode @ 1310 nm	62.5 µm — standard @ 1300 nm

Berk-Tek's GIGAlite is a breakthrough in optical fiber technology with guaranteed performance that far surpasses every current and proposed fiber optic technology.



- Singlemode, Multi-mode and GIGAlite™
- Outdoor/Indoor
- Riser and Plenum Rated

Berk-Tek
A NEXANS COMPANY
www.berktek.com
1-800-237-5835

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

Berk-Tek's loose tube cable design can be used in all typical campus and outdoor/indoor installations, and is available with standard multi-mode, singlemode and GIGAlite™ fibers. This design affords the installer the ability to place cable anywhere in a network, bypassing the traditional transition points required in most installations. ADVENTUM Riser cable is available in two to 144 count fiber constructions. These cables have been thoroughly tested in accordance with Telcordia GR-20, ICEA-640, and ICEA-696 standards where applicable.

BUFFER TUBE CONSTRUCTION

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

STANDARDS

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

APPLICATIONS

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

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

FEATURES

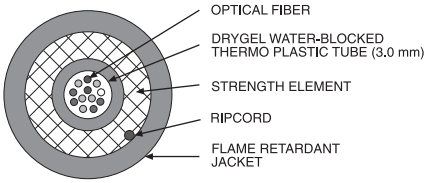
- Designed to support Gigabit Ethernet, Gigabit ATM, Fibre Channel and other high-speed applications
- Riser or plenum rating enables installation to go directly from outside plant to riser shaft with no transition points
- Cable Core and Buffer Tubes use DryGel™ water blocking system
- All dielectric design

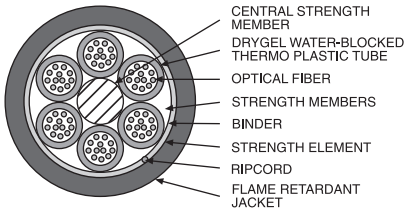
BENEFITS

- Compact, water blocked, plenum or riser rated, flexible loose tube design of all dielectric construction allows for installation in any outside plant to riser shaft with no transition point
- No cleaning of gels required for installation, greatly reducing installation time and cost
- Transition points in network are not needed
- System grounding requirements are eliminated

TEMPERATURE RATING

OPERATION	-40°C to +75°C
STORAGE	-40°C to +85°C
PLENUM INSTALLATION (>12 Fibers)	-20°C to +60°C
PLENUM INSTALLATION	0°C to +60°C
RISER INSTALLATION	-20°C to +60°C





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RISER SPECS

- 2-12 fiber tensile strength to 300 lbs. for installation
- 18-144 fiber tensile strength to 600 lbs. for installation
- These cables offer the higher packing density of loose tube cables in a riser rated design
- Designed to stand up to rigors of the outside plant environment
- Easy to terminate

PART NUMBER SELECTION GUIDE

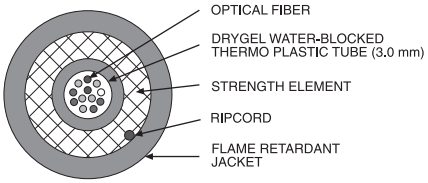
- Select the product prefix corresponding to the cable configuration and quantity of fibers you desire, in Table A.
- Then choose the product's suffix corresponding to the type of fiber you desire, in Table B.

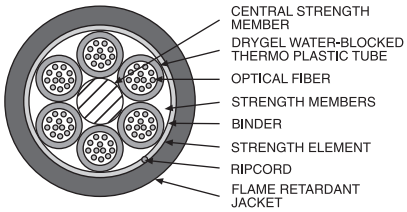
Example: LTR012-CB3510/25

RISER RATED TECHNICAL DATA—PHYSICAL (TABLE A)

FIBERS	PRODUCT PREFIX	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
						INSTALL		LONG TERM		INSTALL		LONG TERM	
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
2	LTR002-	0.260	6.6	32	48	3.9	9.9	2.6	6.6	300	1335	90	400
4	LTR004-	0.260	6.6	32	48	3.9	9.9	2.6	6.6	300	1335	90	400
6	LTR006-	0.260	6.6	32	48	3.9	9.9	2.6	6.6	300	1335	90	400
8	LTR008-	0.260	6.6	32	48	3.9	9.9	2.6	6.6	300	1335	90	400
12	LTR012-	0.260	6.6	32	48	3.9	9.9	2.6	6.6	300	1335	90	400
18	LTR6B018–	0.411	10.4	77	113	6.1	15.6	4.1	10.4	600	2670	200	890
24	LTR6B024–	0.411	10.4	77	113	6.1	15.6	4.1	10.4	600	2670	200	890
36	LTR6B036–	0.411	10.4	77	113	6.1	15.6	4.1	10.4	600	2670	200	890
48	LTR12B048–	0.451	11.5	74	110	6.8	17.3	4.5	11.5	600	2670	200	890
60	LTR12B060–	0.451	11.5	74	110	6.8	17.3	4.5	11.5	600	2670	200	890
72	LTR12B072–	0.487	12.4	105	156	7.3	18.6	4.9	12.4	600	2670	200	890
84	LTR12B084-	0.523	13.3	115	171	7.9	20.0	5.2	13.3	600	2670	200	890
96	LTR12B096–	0.561	14.3	138	206	8.4	21.3	5.6	14.2	600	2670	200	890
108	LTR12B108–	0.599	15.2	154	229	9.0	22.8	6.0	15.2	600	2670	200	890
120	LTR12B120–	0.639	16.2	175	261	9.6	24.3	6.4	16.2	600	2670	200	890
132	LTR12B132–	0.677	17.2	198	295	10.2	25.8	6.8	17.2	600	2670	200	890
144	LTR12B144–	0.717	18.2	226	337	10.7	27.3	7.2	18.2	600	2670	200	890

Flame Rating: OFNR/FT4, **Sheath:** black, riser rated, UV resistant, **Packaging:** Reels





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PLENUM SPECS

- 6-12 fiber tensile strength to 300 lbs. for installation
- 18-144 fiber tensile strength to 600 lbs. for installation
- These cables offer the higher packing density of loose tube cables in a plenum rated design
- Designed to stand up to rigors of the outside plant environment
- Easy to terminate

PART NUMBER SELECTION GUIDE

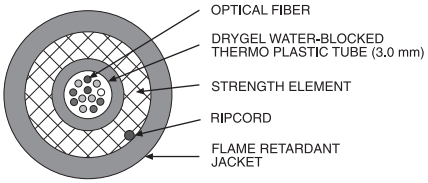
- Select the product prefix corresponding to the cable configuration and quantity of fibers you desire, in Table A.
- Then choose the product's suffix corresponding to the type of fiber you desire, in Table B.

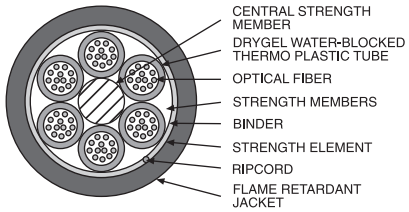
Example: LTR012-CB3510/25

PLENUM RATED TECHNICAL DATA—PHYSICAL (TABLE A)

FIBERS	PRODUCT PREFIX	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
						INSTALL		LONG TERM		INSTALL		LONG TERM	
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
6	LTP006–	0.260	6.6	32	48	3.9	9.9	2.6	6.6	300	1335	90	400
8	LTP008–	0.260	6.6	32	48	3.9	9.9	2.6	6.6	300	1335	90	400
12	LTP012–	0.260	6.6	32	48	3.9	9.9	2.6	6.6	300	1335	90	400
18	LTP6B018–	0.460	11.7	87	130	6.9	17.5	4.6	11.7	600	2670	200	890
24	LTP6B024–	0.460	11.7	87	130	6.9	17.5	4.6	11.7	600	2670	200	890
36	LTP6B036–	0.460	11.7	87	130	6.9	17.5	4.6	11.7	600	2670	200	890
48	LTP12B048–	0.460	11.7	87	130	6.9	17.5	4.6	11.7	600	2670	200	890
60	LTP12B060–	0.460	11.7	87	130	6.9	17.5	4.6	11.7	600	2670	200	890
72	LTP12B072–	0.460	11.7	87	130	6.9	17.5	4.6	11.7	600	2670	200	890
84	LTP12B084–	0.498	12.6	93	138	7.5	18.9	5.0	12.6	600	2670	200	890
96	LTP12B096–	0.537	13.6	110	163	8.1	20.4	5.4	13.6	600	2670	200	890
108	LTP12B0108–	0.576	14.6	129	192	8.6	21.9	5.8	14.6	600	2670	200	890
120	LTP12B0120–	0.616	15.7	150	223	9.2	23.6	6.2	15.7	600	2670	200	890
132	LTP12B0132-	0.655	16.6	172	257	9.8	24.9	6.6	16.6	600	2670	200	890
144	LTP12B0144-	0.695	17.6	197	294	10.4	26.6	7.0	17.7	600	2670	200	890

Flame Rating: OFNP/FT6, **Sheath:** blue, plenum rated, UV resistant, **Packaging:** Reels





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FIBER TECHNICAL DATA (MULTI-MODE) (TABLE B)

FIBER TYPE	FIBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz/km)	LENGTH (METERS @ 850-1300 nm)
62.5/125 µm-Standard	CB3510/25	850/1300	3.5/1.0	200/500*	1 GbE—300/600
62.5/125 µm-GIGAlite™	GB3510/25	850/1300	3.5/1.0	200/500**	1 GbE—500/1000
50/125 µm-GIGAlite™	LB3515/55	850/1300	3.5/1.5	500/500**	1 GbE—600/2000
50/125 µm-GIGAlite 10	EB3515/25	850/1300	3.5/1.5	2000***/500*	10 GbE—300/300 1 GbE—1000/550

Contact customer service for more information. *Overfilled Bandwidth Measurement per EIA FOTP 204—Paragraph 3.2.1. **Restricted Mode Launch per EIA FOTP 204—Paragraph 3.2.2 ***Differential Mode Delay per EIA FOTP-220 DMD Test Measurement.

FIBER TECHNICAL DATA (SINGLEMODE) (TABLE B)

FIBER TYPE	FIBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz/km)	LENGTH (METERS @ 1300 nm)
Standard for loose tube	AB0504	1310/1550	0.5/0.4*	NA	1 GbE—5km
Standard for Interconnect (IC, MC and RD)	AB0707	1310/1550	0.7/0.7	NA	NA
Standard for Premise Distribution	AB1010	1310/1550	1.0/1.0	NA	1 GbE—5km

*Different attenuation values available. Call 1-800-BERK-TEK.

- Singlemode, Multi-mode and GIGAlite™
- Horizontal and Patch Cable
- Riser and Plenum Rated

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Berk-Tek's Interconnect Tight Buffered, 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 multi-mode, singlemode and GIGAlite™ fibers.

CONSTRUCTION

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

STANDARDS

International	ISO/IEC 11801
European	EN 50173
North American	Telecordia GR-409
	ICEA S-83-596
	UL
	OFNR/FT4
	OFNP/FT6

APPLICATIONS

Berk-Tek's Interconnect Tight Buffered Cable is intended for all high speed data applications including:

IEEE 802.3 FOIRL	10 Mb/s
IEEE 802.3 10BASE-F	10 Mb/s
IEEE 802.3 1000BASE-SX/LX	1 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

FEATURES

- Flexible, small diameter, 900 µm tight buffered construction
- High tensile strength and small diameter design
- 1 through 4 fiber design for patch cable and horizontal installations
- Support Token Ring, 10BASE-F, Fast Ethernet, FOIRL, Fibre Channel FC-PH, ATM, Gigabit Ethernet, FDDI, Sonet, voice, video and other networking applications
- Ribbon Interconnect cable is compatible with multi-fiber connectors
- Also available in Low Smoke Zero Halogen design
- Designs compatible with small form factor (SFF) connectors
- Small form factor connector versions available (MC Series)

BENEFITS

- Cost-saving design easy to install and terminate
- Assurance that cables will meet required specifications for communication networking applications
- One cable design meeting all structured cabling network communications applications
- Space-saving design allows for dense cable installations

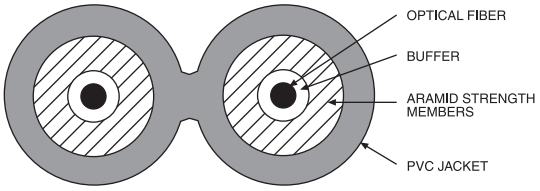
TEMPERATURE RATING

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

PART NUMBER SELECTION GUIDE

- Select the product prefix corresponding to the cable configuration and quantity of fibers you desire, in Table A.
- Then choose the product's suffix corresponding to the type of fiber you desire, in Table B.

Example: ICROXO-CB3510/25



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RISER RATED TECHNICAL DATA—PHYSICAL (TABLE A)

FIBERS	PRODUCT PREFIX	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
						INSTALL		LONG TERM		INSTALL		LONG TERM	
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
1	MCR001–	0.063	1.6	2	3	1.0	2.5	0.6	1.6	50	220	15	66
2 Duplex	MCR0X0–	.063 X .130	1.6 X 3.3	4	6	1.0	2.5	0.6	1.6	50	220	15	66
1	ICR001–(D4)	0.079	2.0	3	5	1.2	3.0	0.8	2.0	50	220	15	66
2 Duplex	ICR0X0–(D4)	.079 X .162	2.0 X 4.1	5	8	1.2	3.0	0.8	2.0	50	220	15	66
1	ICR001–	0.114	2.9	6	9	1.8	4.5	1.2	3.0	50	220	15	66
2 Duplex	ICR0X0-	.114 X .232	2.9 X 5.9	12	18	1.8	4.5	1.2	3.0	50	220	15	66
2 Round	ICR002–	0.187	4.8	12	18	2.8	7.1	1.9	4.7	150	660	45	198
4	ICR004–	0.187	4.8	13	19	2.8	7.1	1.9	4.7	150	660	45	198
12 Fiber Ribbon	RDR012-	.063 X .170	1.6 X 4.3	3	5	1.0	2.5	0.6	1.6	50	220	15	66

Flame Rating: OFNR/FT4, **Sheath:** riser rated, PVC, **Packaging:** Reels

PLENUM RATED TECHNICAL DATA—PHYSICAL (TABLE A)

FIBERS	PRODUCT PREFIX	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
						INSTALL		LONG TERM		INSTALL		LONG TERM	
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
1	ICP001–	0.114	2.9	6	9	1.8	4.5	1.2	3.0	50	220	15	66
2 Duplex	ICP0X0–	.114 X .23	2.9 X 5.9	12	18	1.8	4.5	1.2	3.0	50	220	15	66
2 Round	ICP002–	0.187	4.8	12	18	2.8	7.1	1.9	4.7	150	660	45	198
4	ICP004–	0.187	4.8	13	19	2.8	7.1	1.9	4.7	150	660	45	198

Flame Rating: OFNP/FT6, **Sheath:** plenum rated, PVC, **Packaging:** Reels

FIBER TECHNICAL DATA (MULTI-MODE) (TABLE B)

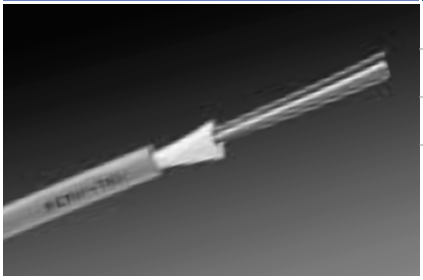
FIBER TYPE	FIBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz/km)	LENGTH (METERS @ 850-1300 nm)
62.5/125 µm-Standard	CB3510/25	850/1300	3.5/1.0	200/500*	1 GbE—300/600
62.5/125 µm-GIGAlite™	GB3510/25	850/1300	3.5/1.0	200/500**	1 GbE—500/1000
50/125 µm-GIGAlite™	LB3515/55	850/1300	3.5/1.5	500/500**	1 GbE—600/2000
50/125 µm-GIGAlite 10	EB3515/25	850/1300	3.5/1.5	2000***/500*	10 GbE—300/300 1 GbE—1000/550

Contact customer service for more information. *Overfilled Bandwidth Measurement per EIA FOTP 204—Paragraph 3.2.1. **Restricted Mode Launch per EIA FOTP 204—Paragraph 3.2.2 ***Differential Mode Delay per EIA FOTP-220 DMD Test Measurement.

FIBER TECHNICAL DATA (SINGLEMODE) (TABLE B)

FIBER TYPE	FIBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz/km)	LENGTH (METERS @ 1300 nm)
Standard for loose tube	AB0504	1310/1550	0.5/0.4*	NA	1 GbE—5km
Standard for Interconnect (IC, MC and RD)	AB0707	1310/1550	0.7/0.7	NA	NA
Standard for Premise Distribution	AB1010	1310/1550	1.0/1.0	NA	1 GbE—5km

 *Different attenuation values available. Call 1-800-BERK-TEK.



- Singlemode, Multi-mode and GIGAlite™
- Backbone, Horizontal and Patch Cable
- Riser and Plenum Rated

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1-800-237-5835

Berk-Tek's tight buffered, fiber optic cable is designed for installation in Riser/Plenum environments and horizontal and interbuilding backbone structures.

Berk-Tek's tight buffered cable is available with standard multi-mode, singlemode and GIGAlite™ fibers.

CONSTRUCTION

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

OUTDOOR CONSIDERATION

If used outdoors, Berk-Tek recommends premise distribution cables be installed in conduit below the frost line.

STANDARDS

International	ISO/IEC 11801
European	EN 50173
North American	Telcordia GR-409
	ICEA S-83-596
	UL OFNR/FT4
	UL OFNP/FT6

APPLICATIONS

Berk-Tek's tight buffered cable is intended for all high speed data applications including:

IEEE 802.3 FOIRL	10 Mb/s
IEEE 802.3 10BASE-F	10 Mb/s
IEEE 802.3 1000BASE-SX/LX	1 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

FEATURES

- Flexible, small diameter, 900 µm tight—buffered construction
- High tensile strength and small diameter design
- Six to 144 count fiber construction riser designs ideal for horizontal and backbone and installation
- Singlemode, multi-mode, and hybrid designs available
- Support token ring, 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 thus reducing installation time
- Assurance that cables will meet required specifications for communication networking applications
- Broad design selection allows for mix and match of fiber components to specific networking applications
- One cable design meeting all structured cabling network communications applications

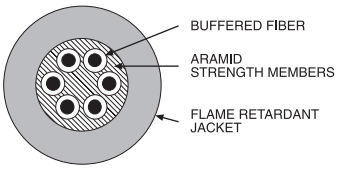
TEMPERATURE RATING

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

PART NUMBER SELECTION GUIDE

- Select the product prefix corresponding to the cable configuration and quantity of fibers you desire, in Table A.
- Then choose the product's suffix corresponding to the type of fiber you desire, in Table B.

Example: PDR012-CB3510/25



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- Riser and Plenum Rated

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RISER RATED TECHNICAL DATA—PHYSICAL (TABLE A)

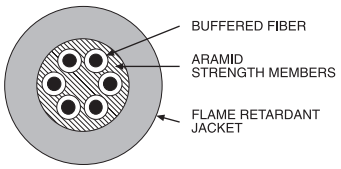
FIBERS	PRODUCT PREFIX	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
						INSTALL		LONG TERM		INSTALL		LONG TERM	
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
6	PDR006–	0.256	6.5	26	39	3.8	9.8	2.6	6.5	150	660	45	198
8	PDR008–	0.268	6.8	29	42	4.0	10.2	2.7	6.8	150	660	45	198
12	PDR012–	0.278	7.1	32	48	4.2	10.6	2.8	7.1	150	660	45	198
18	PDR018–	0.304	7.7	43	64	4.6	11.7	3.0	7.7	300	1320	90	396
24	PDR024–	0.354	9.1	55	82	5.3	13.5	3.5	9.0	300	1320	90	396
18	PDR6B018–	0.495	12.6	86	129	7.4	18.9	5.0	12.6	300	1320	90	396
24	PDR6B024–	0.541	13.7	104	154	8.1	20.6	5.4	13.7	300	1320	90	396
24	PDR12B024–	.458 X .252	11.6 X 6.4	49	73	3.8	9.6	2.5	6.4	300	1320	90	396
36	PDR6B036–	0.651	16.5	115	171	8.1	20.5	5.4	13.7	300	1320	90	396
48	PDR12B048–	0.590	15.0	130	193	8.9	22.5	5.9	15.0	300	1320	90	396
60	PDR12B060–	0.657	16.7	157	234	9.9	25	6.6	16.7	300	1320	90	396
72	PDR12B072–	0.732	18.6	191	285	11.0	27.9	7.3	18.6	300	1320	90	396
84	PDR12B084–	0.780	19.8	227	338	11.7	29.7	7.8	19.8	300	1320	90	396
96	PDR12B096–	0.880	22.3	268	399	13.2	33.5	8.8	22.3	300	1320	90	396
108	PDR12B108–	0.894	22.7	315	469	13.4	34.1	8.9	22.7	300	1320	90	396
120	PDR12B120–	0.940	23.9	289	430	14.1	35.8	9.4	23.9	300	1320	90	396
132	PDR12B132–	0.940	23.9	289	430	14.1	35.8	9.4	23.9	300	1320	90	396
144	PDR12B144–	0.940	23.9	289	430	14.1	35.8	9.4	23.9	300	1320	90	396

Flame Rating: OFNR/FT4, **Sheath:** riser rated, PVC, **Packaging:** Reels

PLENUM RATED TECHNICAL DATA—PHYSICAL (TABLE A)

FIBERS	PRODUCT PREFIX	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
						INSTALL		LONG TERM		INSTALL		LONG TERM	
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
6	PDP006–	0.170	4.3	13	19	2.5	6.5	1.7	4.3	100	440	30	132
8	PDP008–	0.182	4.6	14	21	2.7	6.9	1.8	4.6	100	440	30	132
12	PDP012–	0.206	5.2	17	25	3.1	7.8	2.1	5.2	100	440	30	132
18	PDP6B018–	0.474	12.0	91	135	7.1	18.0	4.7	12.0	150	660	45	198
24	PDP6B024–	0.520	13.2	109	162	7.8	19.8	5.2	13.2	150	660	45	198
24	PDP12B024–	.454 X .252	11.5 X 6.4	64	95	7.8	19.8	5.2	13.2	150	660	45	198
36	PDP6B036–	0.620	15.7	115	171	7.8	19.7	5.2	13.2	150	660	45	198
48	PDP12B048–	0.565	14.4	132	196	8.5	21.5	5.7	14.4	150	660	45	198
60	PDP12B060–	0.624	15.8	166	247	9.4	23.8	6.2	15.8	150	660	45	198
72	PDP12B072–	0.695	17.7	216	322	10.5	26.6	7.0	17.7	150	660	45	198
96	PDP12B096–	0.830	21.1	218	325	12.5	31.8	8.3	21.1	150	660	45	198
144	PDP12B144–	0.920	23.4	328	489	13.8	35.1	9.2	23.4	150	660	45	198

Flame Rating: OFNP/FT6, **Sheath:** plenum rated, thermoplastic, **Packaging:** Reels



- Singlemode, Multi-mode and GIGAlite™
- Backbone, Horizontal and Patch Cable
- Riser and Plenum Rated

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FIBER TECHNICAL DATA (MULTI-MODE) (TABLE B)

FIBER TYPE	FIBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz/km)	LENGTH (METERS @ 850-1300 nm)
62.5/125 µm-Standard	CB3510/25	850/1300	3.5/1.0	200/500*	1 GbE—300/600
62.5/125 µm-GIGAlite™	GB3510/25	850/1300	3.5/1.0	200/500**	1 GbE—500/1000
50/125 µm-GIGAlite™	LB3515/55	850/1300	3.5/1.5	500/500**	1 GbE—600/2000
50/125 µm-GIGAlite 10	EB3515/25	850/1300	3.5/1.5	2000***/500*	10 GbE—300/300 1 GbE—1000/550

Contact customer service for more information. *Overfilled Bandwidth Measurement per EIA FOTP 204—Paragraph 3.2.1. **Restricted Mode Launch per EIA FOTP 204—Paragraph 3.2.2 ***Differential Mode Delay per EIA FOTP-220 DMD Test Measurement.

FIBER TECHNICAL DATA (SINGLEMODE) (TABLE B)

FIBER TYPE	FIBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz/km)	LENGTH (METERS @ 1300 nm)
Standard for loose tube	AB0504	1310/1550	0.5/0.4*	NA	1 GbE—5km
Standard for Interconnect (IC, MC and RD)	AB0707	1310/1550	0.7/0.7	NA	NA
Standard for Premise Distribution	AB1010	1310/1550	1.0/1.0	NA	1 GbE—5km

*Different attenuation values available. Call 1-800-BERK-TEK.

- Singlemode, Multi-mode and GIGAlite™
- Backbone
- Outside Plant

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1-800-237-5835

Berk-Tek's Outside Plant Loose Tube fiber optic cables are designed for installation in harsh environments such as direct burial, aerial lashing, conduit and pathways that are subjected to wide temperature variations. The Outside Plant product line offers two to 144 fibers per cable. These cables are thoroughly tested and verified to Telcordia GR-20 and ICEA-640 for outside cabling systems.

Berk-Tek's Outdoor Loose Tube cables are available in multi-mode, singlemode and GIGAlite™ fibers.

CONSTRUCTION

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

OUTDOOR CONSIDERATION

Berk-Tek recommends that loose tube cables be utilized in an outside plant installation environment. Loose tube cables are especially recommended 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	ANSI/TIA/EIA-568-B3
	Telcordia GR-20
	ANSI/ICEA S-87-640

APPLICATIONS

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

IEEE 802.3 FOIRL	10 Mb/s
IEEE 802.3 10BASE-F	10 Mb/s
IEEE 802.3 1000BASE-SX/LX	1000 Mb/s
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

FEATURES

- High tensile strength, crush resistant and small diameter design
- Singlemode, multi-mode and hybrid design options available
- Support Token Ring, 10BASE-F, Gigabit Ethernet, Fast Ethernet, FOIRL, Fibre Channel FC-PH, ATM, FDDI, Sonet, voice, video and other networking systems
- Highest bandwidth available in a cable medium
- All dielectric design
- Fully water-blocked core using dry water blocking system
- Also available in Low Smoke Zero Halogen and Armored designs

BENEFITS

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

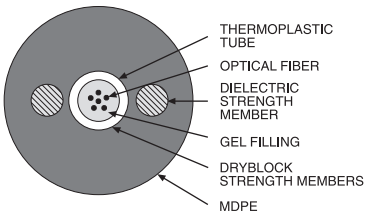
TEMPERATURE RATING

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

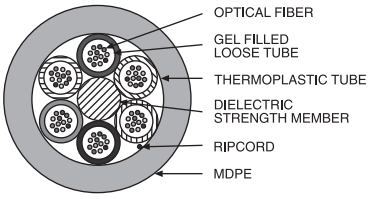
PART NUMBER SELECTION GUIDE

- Select the product prefix corresponding to the cable configuration and quantity of fibers you desire, in Table A.
- Then choose the product's suffix corresponding to the type of fiber you desire, in Table B.

Example: OPD012-CB3510/25



UNI-Lite



Standard

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1-800-237-5835

TECHNICAL DATA—PHYSICAL (TABLE A)

FIBERS	PRODUCT PREFIX	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
						INSTALL		LONG TERM		INSTALL		LONG TERM	
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
2	OPD002–*	0.400	10.1	51	76	6.0	15.2	4.0	10.1	600	2670	200	890
4	OPD004–*	0.400	10.1	51	76	6.0	15.2	4.0	10.1	600	2670	200	890
6	OPD006–*	0.400	10.1	51	76	6.0	15.2	4.0	10.1	600	2670	200	890
8	OPD008–*	0.400	10.1	51	76	6.0	15.2	4.0	10.1	600	2670	200	890
12	OPD012–*	0.400	10.1	51	76	6.0	15.2	4.0	10.1	600	2670	200	890
12	OPDD6B012–	0.417	10.6	55	82	6.2	15.8	4.2	10.6	600	2670	200	890
18	OPDD6B018–	0.417	10.6	55	84	6.2	15.8	4.2	10.6	600	2670	200	890
24	OPDD6B024–	0.417	10.6	61	91	6.2	15.8	4.2	10.6	600	2670	200	890
36	OPDD6B036–	0.417	10.6	61	91	6.2	15.8	4.2	10.6	600	2670	200	890
48	OPDD12B048–	0.451	11.5	72	107	6.8	17.3	4.5	11.4	600	2670	200	890
60	OPDD12B060–	0.451	11.5	72	107	6.8	17.3	4.5	11.4	600	2670	200	890
72	OPDD12B072–	0.489	12.4	83	124	7.3	18.6	4.9	12.4	600	2670	200	890
84	OPDD12B084–	0.527	13.4	96	144	7.9	20.1	5.3	13.4	600	2670	200	890
96	OPDD12B096–	0.565	14.4	114	170	8.5	21.5	5.7	14.4	600	2670	200	890
108	OPDD12B108–	0.603	15.3	128	191	9.0	23.0	6.0	15.3	600	2670	200	890
120	OPDD12B120–	0.642	16.3	145	216	9.6	24.5	6.4	16.3	600	2670	200	890
132	OPDD12B132–	0.681	17.3	163	243	10.2	25.9	6.8	17.3	600	2670	200	890
144	OPDD12B144–	0.720	18.3	182	271	10.8	27.4	7.2	18.3	600	2670	200	890

*Indicates UNI-Lite™ construction; **Sheath:** black, MDPE; **Packaging:** Reels; **Note:** Outdoor Loose Tube also available with Riser and Plenum Rating.

FIBER TECHNICAL DATA (MULTI-MODE) (TABLE B)

FIBER TYPE	FIBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz/km)	LENGTH (METERS @ 850-1300 nm)
62.5/125 µm-Standard	CB3510/25	850/1300	3.5/1.0	200/500*	1 GbE—300/600
62.5/125 µm-GIGAlite™	GB3510/25	850/1300	3.5/1.0	200/500**	1 GbE—500/1000
50/125 µm-GIGAlite™	LB3515/55	850/1300	3.5/1.5	500/500**	1 GbE—600/2000
50/125 µm-GIGAlite 10	EB3515/25	850/1300	3.5/1.5	2000***/500*	10 GbE—300/300 1 GbE—1000/550

Contact customer service for more information. *Overfilled Bandwidth Measurement per EIA FOTP 204—Paragraph 3.2.1. **Restricted Mode Launch per EIA FOTP 204—Paragraph 3.2.2 ***Differential Mode Delay per EIA FOTP-220 DMD Test Measurement.

FIBER TECHNICAL DATA (SINGLEMODE) (TABLE B)

FIBER TYPE	FIBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz/km)	LENGTH (METERS @ 1300 nm)
Standard for loose tube	AB0504	1310/1550	0.5/0.4*	NA	1 GbE—5km
Standard for Interconnect (IC, MC and RD)	AB0707	1310/1550	0.7/0.7	NA	NA
Standard for Premise Distribution	AB1010	1310/1550	1.0/1.0	NA	1 GbE—5km

*Different attenuation values available. Call 1-800-BERK-TEK.

- Singlemode, Multi-mode, GIGAlite
- Suitable for hazardous environments
- Plenum/Riser Rated

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1-800-237-5835

Berk-Tek's Interlock Armor cables consist of a standard premise distribution fiber cable with an aluminum or steel spirally wrapped armor encasing it. The cable is then covered with a plenum or riser rated jacket to prevent snags during installation.

Interlock Armor cables are ideal for installations requiring additional ruggedness or greater crush resistance. However, there is a more practical use for these well-engineered cables. Interlock Armor fiber cables can be installed instead of fiber cable in plenum innerduct or in conduit. This provides the installer with a user friendly, "one pull" solution to a typically expensive and labor-intensive installation process. Interlock Armor cables can also provide the user with flexibility for relocations or design changes after the cable has been pulled, something plenum innerduct or conduit cannot offer.

By installing Interlock Armor cables instead of plenum innerduct or conduit, the user can save about 25% in materials and labor and as much as 60% in valuable installation time.

One thing to keep in mind when installing Interlock Armor cables is that due to the metallic content in the cables it is recommended to ground these cables at time of installation.

CONSTRUCTION

Tight buffered or DryGel loose tube cables containing up to 144 fiber count with either steel or aluminum interlock armor; with overall flame rated thermoplastic.

STANDARDS

International	ISO/IEC 11801
European	EN 50173
North American	ANSI/TIA/EIA-568-A
	ANSI/ICEA S-87-640
	Bellcore GR-20
	OFCR

FLAME RATING

All of Berk-Tek's Interlock Armor cables are rated OFCP for plenum or OFCR for riser.

APPLICATIONS

Interlock Armor cables can be used in any of the following installation environments: indoor, indoor/outdoor, in backbones, between closets, fiber to the desk, if a pathway is beyond its fill ratio, areas where extra physical protection is needed for difficult runs, where network security is a concern, in a fast track installation, between buildings, direct buried in trays or direct buried by plowing.

Berk-Tek's Interlocked Armor loose tube and tight buffered fiber optic cable is intended for all high speed data applications, including:

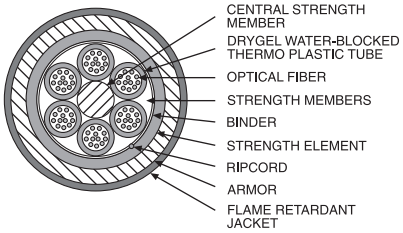
IEEE 802.3 FOIRL	10 Mb/s
IEEE 802.3 10BASE-F	10 Mb/s
IEEE 802.3 1000BASE-SX/LX	1 Gb/s
FDDI	100 Mb/s
ATM	155 Mb/s
	622 Mb/s
	1.2-2.4 Gb/s
Fibre Channel FC-PH	1.062 Gb/s

FEATURES:

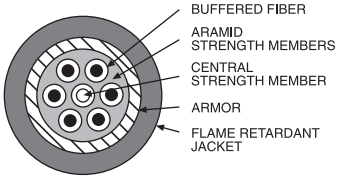
- Jacketed armor that remains flexible due to the spiral wrap armoring process
- The armored design allows for an easy one-pull installation into any environment
- Aluminum or steel interlock armor is available
- Aluminum interlock offers 10 to 13 times the crush resistance of a standard fiber cable
- Steel interlock offers 12 to 19 times the crush resistance of a standard fiber cable
- High tensile strength for installation of cable
- Compact outside diameters when compared to plenum innerduct or conduit
- Available with 62.5 µm, 62.5 µm GIGAlite, 50 µm GIGAlite-10, and single-mode fiber and hybrid constructions

BENEFITS:

- Eliminate the need for conduit or plenum innerduct by installing the interlock armor cable, providing a significant cost savings in both materials and labor
- Extremely durable cables for hazardous environments or difficult cable installations
- Installation time can be reduced by as much as 60% versus installing conduit or innerduct
- Interlock armor cables accommodate last minute relocations or pathway changes whereas innerduct or conduit is not a flexible alternative
- Interlock armor cables are not governed by fill ratios because they are UL listed as cable assemblies, allowing 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
- Provides additional protection and security for your fiber backbone due to the ruggedness of the armoring materials



Loose Tube



Tight Buffered

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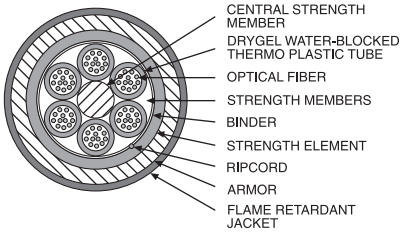
1-800-237-5835

TEMPERATURE RATING

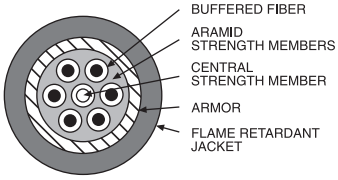
OPERATION	LT -40°C to +75°C PD -20°C to +75°C
STORAGE	-40°C to +85°C
INSTALLATION	-20°C to +60°C

TECHNICAL DATA—PHYSICAL (TABLE A)

FIBERS	PRODUCT PREFIX	DIAMETER		WEIGHT		MIN. BEND RADIUS				MAX. LOADING			
						INSTALL		LONG TERM		INSTALL		LONG TERM	
		in.	mm	lb./kft.	kg/km	in.	cm	in.	cm	lb.	N	lb.	N
6	PDPK006-	0.504	12.8	113	168	10.1	25.7	7.6	19.3	300	1320	90	396
12	PDPK012-	0.509	12.9	148	221	10.2	25.9	7.6	19.3	300	1320	90	396
24	PDPK6B024-	0.819	20.8	291	434	16.4	41.6	12.3	31.2	300	1320	90	396
48	PDPK12B048-	0.87	22.1	326	486	17.4	44.2	13.1	33.3	300	1320	90	396
72	PDPK12B072-	1.015	25.8	432	644	20.3	51.6	20.3	51.6	300	1320	90	396
6	PDRK006-	0.561	14.3	138	205	9.5	24.0	28.6	8.4	300	1320	90	396
12	PDRK012-	0.583	14.8	157	234	11.7	29.7	8.7	22.2	300	1320	90	396
24	PDRK024-	0.64	16.3	184	274	12.8	32.5	9.6	24.4	300	1320	90	396
48	PDRK12B048-	0.895	22.7	330	492	17.9	45.5	13.4	34	300	1320	90	396
72	PDRK12B072-	1.027	26.1	467	696	20.5	52.2	15.4	39.1	300	1320	90	396
6	LTPK006-	0.565	14.4	147	219	11.3	28.8	8.5	21.6	600	2760	200	890
12	LTPK012-	0.565	14.4	147	219	11.3	28.8	8.5	21.6	600	2760	200	890
24	LTPK12B024-	0.765	19.4	257	383	15.3	38.9	11.5	29.2	600	2760	200	890
48	LTPK12B048-	0.765	19.4	257	383	15.3	38.9	11.5	29.2	600	2760	200	890
72	LTPK12B072-	0.765	19.4	257	383	15.3	38.9	11.5	29.2	600	2760	200	890
6	LTRK006-	0.565	14.4	142	212	11.3	28.8	8.5	21.6	600	2760	200	890
12	LTRK012-	0.565	14.4	142	212	11.3	28.8	8.5	21.6	600	2760	200	890
24	LTRK6B024-	0.716	18.2	239	356	14.3	36.4	10.7	27.3	600	2760	200	890
48	LTRK12B048-	0.756	19.2	236	352	15.1	38.4	11.3	28.8	600	2760	200	890
72	LTRK12B072-	0.792	20.1	280	417	15.8	40.2	11.9	30.1	600	2760	200	890



Loose Tube



Tight Buffered

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1-800-237-5835

FIBER TECHNICAL DATA (MULTI-MODE) (TABLE B)

FIBER TYPE	FIBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz/km)	LENGTH (METERS @ 850-1300 nm)
62.5/125 µm-Standard	CB3510/25	850/1300	3.5/1.0	200/500*	1 GbE—300/600
62.5/125 µm-GIGAlite™	GB3510/25	850/1300	3.5/1.0	200/500**	1 GbE—500/1000
50/125 µm-GIGAlite™	LB3515/55	850/1300	3.5/1.5	500/500**	1 GbE—600/2000
50/125 µm-GIGAlite 10	EB3515/25	850/1300	3.5/1.5	2000***/500*	10 GbE—300/300 1 GbE—1000/550

Contact customer service for more information. *Overfilled Bandwidth Measurement per EIA FOTP 204—Paragraph 3.2.1. **Restricted Mode Launch per EIA FOTP 204—Paragraph 3.2.2 ***Differential Mode Delay per EIA FOTP-220 DMD Test Measurement.

FIBER TECHNICAL DATA (SINGLEMODE) (TABLE B)

FIBER TYPE	FIBER SUFFIX	WAVELENGTH (nm)	MAXIMUM ATTENUATION (dB/km)	BANDWIDTH (MHz/km)	LENGTH (METERS @ 1300 nm)
Standard for loose tube	AB0504	1310/1550	0.5/0.4*	NA	1 GbE—5km
Standard for Interconnect (IC, MC and RD)	AB0707	1310/1550	0.7/0.7	NA	NA
Standard for Premise Distribution	AB1010	1310/1550	1.0/1.0	NA	1 GbE—5km

*Different attenuation values available. Call 1-800-BERK-TEK.

- Patch Cable
- Riser Rated
- Plenum Rated

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1-800-237-5835

Berk-Tek's Buffer Tube Break-Out Kits are specifically designed for the termination of 6-fiber and 12-fiber loose buffer tubes. 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.

APPLICATION

- Field termination of loose tube cables

FEATURES/BENEFITS

- Break-out tubing
- New snap-together unit eliminates need for epoxy
- Compact design
- Quick and easy to install
- Optimize 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

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

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APPLICATION QUALIFIER DESCRIPTION

SERIES	PRODUCT	QUALIFIER	APPLICATION
IC	Interconnect	**R**	Riser Rated
		P	Plenum Rated
		RZ	Riser Rated Zero Halogen
MC	Microconnect	**R**	Riser Rated
		P	Plenum Rated
PD	Premises Distribution	**R**	Riser Rated
		P	Plenum Rated
		RZ	Riser Rated Zero Halogen (6-30 fiber)
		Z	Zero Halogen (>30 fiber)
		RK	Riser Rated Aluminum Interlock Armor
		RL	Riser Rated Steel Interlock Armor
		PK	Plenum Rated Aluminum Interlock Armor
		PL	Plenum Rated Steel Interlock Armor
OP	Outside Plant	**DD**	Duct, Aerial, Dry Core
		HD	Harsh Environment Dry Core
		AD	Direct Burial, Steel Corrugated Armor Dry Core
		RZ	Riser Rated Zero Halogen
		Z	Non-Rated Zero Halogen
LT	ADVENTUM	**P**	Plenum Rated
		R	Riser Rated
		PK	Plenum Rated Aluminum Interlock Armor
		RK	Riser Rated Aluminum Interlock Armor
		PL	Plenum Rated Steel Interlock Armor
		RL	Riser Rated Steel Interlock Armor
		RA	Riser Rated Direct Bury Steel Corrugated Armor DryGel/DryCore

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PART NUMBERING SYSTEM

SUBUNIT CONSTRUCTION	FIBER COUNTS AVAILABLE	OPTICAL FIBER	ATTENUATION (MAXIMUM)	BANDWIDTH (MINIMUM)
6B = 6 Fiber/Subunit	001 thru 144	AB = Singlemode	0707 = 0.7/0.7 dB/km @ 1310/1550 nm (Interconnect)	
12B = 12 Fiber/Subunit	0X0 = 2 fiber duplex (zip)		1010 = 1.0/1.0 dB/km @ 1310/1550 nm (Premise Distribution)	
			0504 = 0.5/0.4 dB/km @ 1310/1550 nm (Loose Tube)	
		CB = 62.5/125	3510 = 3.5/1.0 dB/km @ 850/1300 nm (62.5/125)	25 = 200/500 MHz.km* (62.5/125)
		GB = 62.5/125 GIGAlite		25 = 200/500 MHz.km** (62.5/125 GIGAlite)
		LB = 50/125 GIGAlite	3515 = 3.5/1.5 dB/km @ 850/1300 nm (50/125)	55 = 200/500 MHz.km** (50/125 GIGAlite)
		EB = 50/125 GIGAlite-10		25 = 2000/500 MHz.km*** (50/125 GIGAlite-10)

* Overfilled launch per EIA FOTP-204, Paragraph 3.2.1
** Restricted Mode Launch per EIA FOTP -204, Paragraph 3.2.2
*** Differential Mode Delay Measurement @ 850 nm only, per EIA FOTP-220

EXAMPLE **PD R 12B 072 CB 3510 / 25**

Product Series
Premises Distribution

Application Qualifier
Riser Rated

Subunit Count
12 Fiber

Fiber Count Available
72 Fibers

Fiber Type
62.5/125 µm Fiber, 100 KPSI

Attenuation
3.5 dB/km @ 850 nm maximum
1.0 dB/km @ 1300 nm maximum

Bandwidth
200 MHz-km @ 850 nm minimum
500 MHz-km @ 1300 nm minimum

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PART NUMBER PREFIX INDEX

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