How to Order

Special Order for 36MM / 12SM Cable

Cable Part No.: D■■■■-■■■■-■■■■/■■■/■■■-R■■■■

Series Code and Fiber Count
- D-Series: Ultra-Fox™ Plus
- DX-Series: Ultra-Fox™
- DC-Series: Ultra-Fox™ Core-Locked™

Diameter in one-tenth mm (example: 070 = 7.0 mm)

Jacket Material Code
- Standard — D: Flame-Retardant PVC (OFNR rated)
- Optional — C: Polyurethane*
  E: Flame-Retardant Polyurethane*
  A: Polyethylene*
  N: Flexible PVC*

*Cables produced with these outer jacket materials are not riser-rated, but can provide improved temperature, chemical, or mechanical performance.

General Fiber Specifications:

Fiber Type Code
- S: 9/125 Single-Mode
- F: 200/230 HCS
- A: 50/125 Graded Index
- C: 100/140 Graded Index
- W: 62.5/125 Graded Index

First Window Wavelength Performance:

Attenuation in dB/km (example: 3 = 3.0 dB/km)**

**For single-mode attenuations less than 1 dB, use variables "y" and "z," and assign values on order, e.g., y = 0.4, z = 0.3.

Bandwidth Code

For Multimode —

B:	20 MHz-km	T:	300 MHz-km	H:	800 MHz-km
C:	50 MHz-km	F:	400 MHz-km	W:	900 MHz-km
D:	100 MHz-km	U:	500 MHz-km	I:	1,000 MHz-km
S:	150 MHz-km	G:	600 MHz-km	L:	1,300 MHz-km
E:	200 MHz-km	V:	700 MHz-km		

For Single-Mode — M: Matched Clad D: Depressed Clad S: Dispersion Shifted

Wavelength Code

B: 850 nm C: 1,300 nm D: 1,550 nm

(See "Fiber Specification Guide" on facing page for typical optical characteristics.)

Optional: Second Wavelength Attenuation and Bandwidth
(Refer to first-window wavelength references above for codes.)

Optional: Buffer Code
/500: 500 µm diameter /900: 900 µm diameter

UL Rating (example: R = OFNR riser-rated)

Optional: Special Construction
- CST: Corrugated Steel Tape (See pages 86–87.)
- ES1: Easy Strip 1 (See pages 5 and 12.)
- ES2: Easy Strip 2
- WB: Water Blocked (See page 27.)

Part Number Example and Description

DX018-070D-W3SB/1UC/900-R = DX-Series Ultra-Fox 18-fiber cable; 7.0 mm diameter flame-retardant PVC outer jacket. The 62.5/125 optical fiber specification is 3 dB/km and 160 MHz-km at 850 nm; 1 dB/km and 500 MHz-km at 1,300 nm wavelength; with a 900 µm buffer coated fiber. This cable is OFNR riser-rated. See page 108 for a full description of each item in our part number.

Specifications, Options and Notes

Specifications Common to All D-Series Riser Distribution Cables

Minimum Bend Radius:	
Under Installation Tensile Load	20X outside diameter
Under Long-Term Tensile Load	10X outside diameter
Operating Temperature	–40°C to +85°C
Storage Temperature	–55°C to +85°C
Crush Resistance	1,800 N/cm
Impact Resistance	1,500 impacts
Flex Resistance	2,000 cycles

These specifications are subject to change without prior notification.

UL-listed type OFNR in accordance with NEC sections 770-51(b) and 770-53(b) for use in vertical runs in building riser shafts or from floor to floor. Meets or exceeds BellCore requirements for intra-building fiber optic cables as outlined in GR-409-CORE (Issue 1, May 1994).

The fiber wil be ordered in the 36MM / 12SM Composite and or any other configuration as required.

The MM will be 62.5/125 and the SM will be 9/125.

Fiber Specification Guide

Multimode (Typical Optical Characteristics)

Diameter µm	850 nm dB/km	850 nm MHz-km	1,300 nm dB/km	1,300 nm MHz-km	P/N Code
50/125	3.0	400	1.0	400	A3FB/1FC
50/125	3.0	400	1.0	1,000	A3FB/1IC
50/125	3.0	600	1.0	600	A3GB/1GC
50/125	3.0	600	1.0	800	A3GB/1HC
50/125	3.0	600	1.0	1,000	A3GB/1IC
50/125	3.0	800	1.0	800	A3HB/1HC
62.5/125	3.0	160	1.0	300	W3SB/1TC
62.5/125	3.0	160	1.0	500	W3SB/1UC
62.5/125	3.0	200	1.0	400	W3EB/1FC
62.5/125	3.0	200	1.0	600	W3EB/1GC
62.5/125	3.0	200	1.0	800	W3EB/1HC
62.5/125	3.0	300	1.0	800	W3TB/1HC
62.5/125	3.0	400	1.0	600	W3FB/1GC
100/140	4.0	100	2.0	100	C4DB/2DC
100/140	4.0	160	2.0	300	C4SB/2TC
100/140	4.0	160	2.0	500	C4SB/2UC
100/140	4.0	300	2.0	300	C4TB/2TC
100/140	4.0	400	2.0	400	C4FB/2FC
200/230 HCS	8.0	20	—	—	F8BB

Single-Mode (Typical Optical Characteristics)

Diameter µm	1,300 nm dB/km	1,550 nm dB/km	P/N Code
9/125	0.4	0.3	SyMC/zMD*
9/125	0.5	0.5	SyMC/zMD*
9/125	1.0	—	S1MC
9/125	1.0	1.0	S1MC/1MD

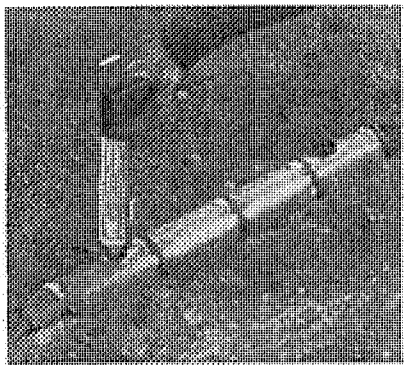
Range of Available Optical Performance

Wavelength Fiber Type: µm	Attenuation: dB/km 850 nm	Attenuation: dB/km 1,300 nm	Bandwidth: MHz-km 850 nm	Bandwidth: MHz-km 1,300 nm
50/125	2.3 – 4.0	0.5 – 1.5	400 – 1,000	400 – 2,000
62.5/125	2.7 – 4.0	0.6 – 1.5	100 – 800	200 – 1,400
100/140	3.5 – 5.0	1.0 – 3.0	100 – 400	100 – 800

*For single-mode attenuations less than 1 dB, use variables "y" and "z," and assign values on order, e.g., y = 0.4, z = 0.3.

Note: Attenuation specifications are nominal performance values. Due to variations in lengths of cable, size of shipping reel, and spooling conditions, measured values may exceed nominal values. Measured attenuations on the shipping reels will not exceed the nominal values by more than 0.75 dB/km.

Encapsulated Closures



900 Series Direct Injection Closures 189

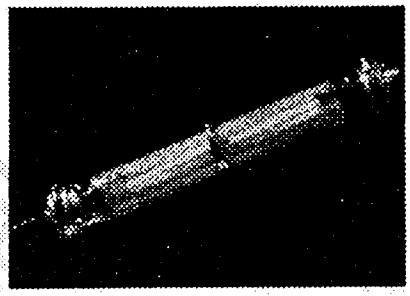
Encapsulated Closures enclose cable plant splices in direct buried, hand hole, and man hole applications. They also protect cable splices from environmental elements found in these applications and enclose a variety of cable configurations. The closures are also used to easily accommodate distribution drops from the main cable.

The methods used in encapsulated closures have evolved from early gravity filled methods to compound compression methods to our 900 Series Closure which utilizes a direct injection (DI) encapsulation method. The DI method distinguishes the 900 series closure by applying a uniform 8 PSI encapsulant pressure on all closure sizes. This pressure forces the encapsulant up the cable core to further stop water ingress. In addition, the 900 series utilizes the new spiral gel end seal which seals a variety of cable configurations, provides a flexible seal to the cable's sheath, and chemically bonds to 4442 High Gel Reenterable Encapsulant. The 900 series closure body varies in diameter, which decreases the number of closures needed to be stocked by half and minimizes the amount of encapsulant required.

The Armorcast Buried Closure (ABC) uses a compound compression to apply pressure to the encapsulant. In a compound compression system the encapsulant pressure varies form 8 PSI in smaller diameter closures to 2 PSI in the larger diameter closures. The ABC closure utilizes Armorcast structural material to provide physical protection over the sealing wraps of rubber mastic. These rubber mastic wraps seal over a vapor barrier which covers the splice bundle that is encapsulated with the compound compression method.

The Better Buried and 89 Series Closures use a gravity fill method of encapsulating and protecting the cable splice. Both kits are simple to install and are offered with a full product offering to cover the complete cable ranges found in the outside plant. In addition, both kits can be ordered with 4442 High Gel reenterable encapsulant. The 89 Series can also be purchased with 4407 Encapsulant for making a permanent, hard encapsulated closure with maximum water protection.

The Better Buried Compound Compression Closure System used the compression method to force the encapsulant up the cable core to stop water ingress. The product is simple to install, comes with the spacer web and plastic wrap and is used to hold and force the encapsulant. The product is offered in different sizes to cover various cable ranges and can be easily extended and bricked.



Better Buried Closures 190

Features — Benefits

900 Series Direct Injection Closures

Few loose parts	Easy assembly (under 20 minutes); increased productivity
No special tools or equipment	
Multiple port end seal	
Rigid bonding assembly	
Uniform compound pressure	
Meets industry specifications	

ABC Closures

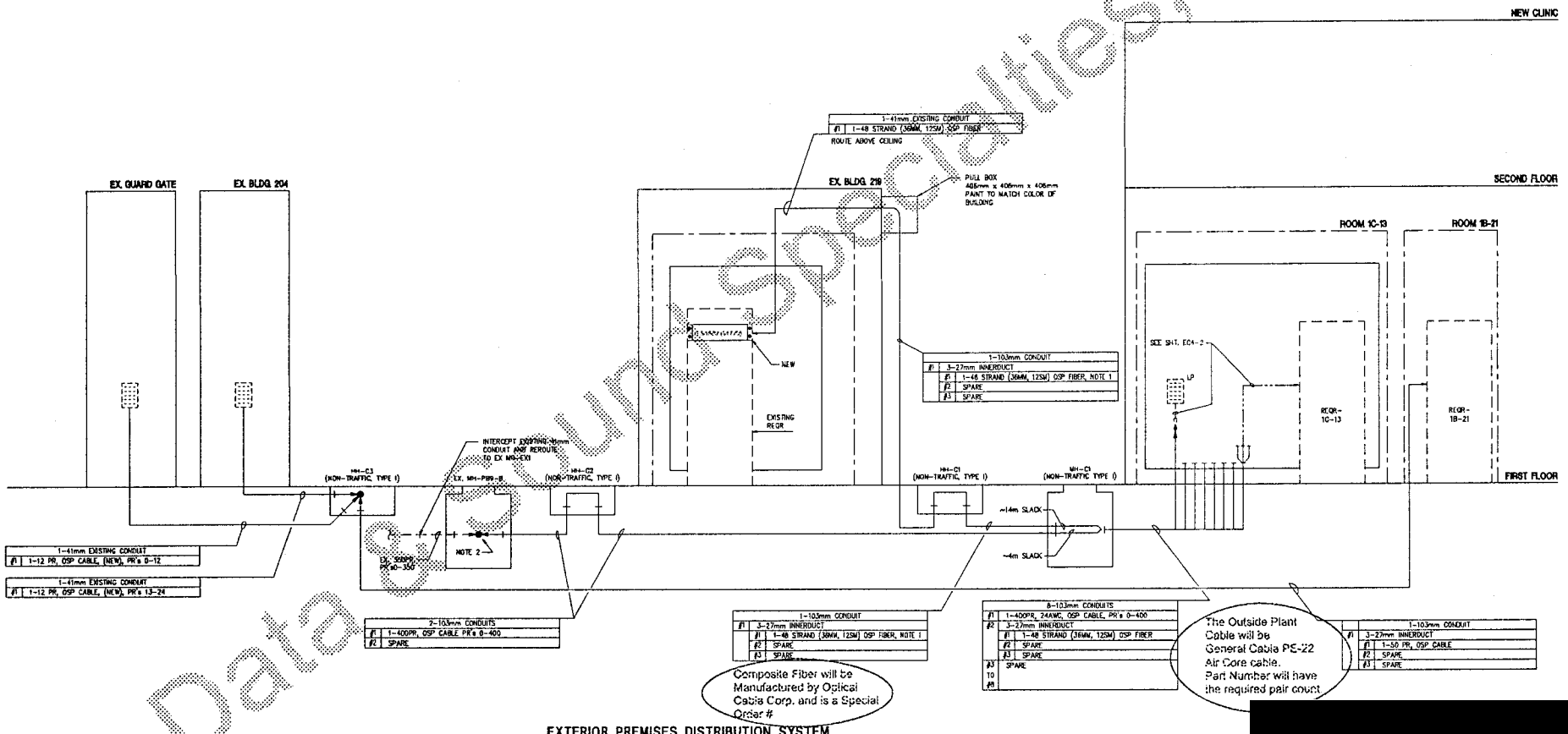
	No safety problems; no special techniques required
Compression wrap	Minimizes core water; completed costs are lower
Tough outer shell	Can be used in harsh environments
Solvent-resistant	Gasoline cannot erode Armorcast jacket
	Minimizes reentry
	Splice repair and maintenance is easy
	Three kits cover most applications

Product Referral Information

Compounds/Encapsulants	pg. 82
Shield Bonding	pg. 122
Cable Cleaning	pg. 120
Scotchlok™ Connectors	pg. 2
MS™ Modules	pg. 6
Tapes	pg. 102
Sheath Scuff	pg. 121
Pair Saver	pg. 121
E-2 Wrap	pg. 103
Cable Ties	pg. 120

REVISIONS				
BY	DESCRIPTION	PREPARED BY	DATE	APPROVED

NOTES:
1. GROUND ON BOTH ENDS. USED TO PROVIDE METALLIC ELEMENT FOR LOCATING CONDUIT.
2. SPLICE IN EXISTING MH-PB99-B TO BE BY BASE COMMUNICATIONS.



EXTERIOR PREMISES DISTRIBUTION SYSTEM
SINGLE LINE DIAGRAM
NO SCALE

[redacted]

Ordering Information for Direct Injection Closure Kits

	900 Series Closures			
Product number	9325-DI	922-DI	954-DI	976-DI
Splice bundle diameter mm (in.)	75-50 (3-2)	75-50 (3-2)	125-100 (5-4)	175-150 (7-6)
Max. splice opening mm (in.)	200 (8)	525 (21)	525 (21)	525 (21)
Closure length end to end mm (in.)	375 (15)	800 (32)	800 (32)	825 (33)
MS™ 4000 DWP Module splice maximum pair capacity	100-pr.	200-pr.	600-pr.	1800-pr.
Scotchlok™ Connector splice UR2/UR	50-pr.	100 pr.	300-pr.	600 pr.
Approx. compound required	1,650 ml (1,500 grams*)	3,300 ml (3,000 grams*)	8,300 ml (7,200 grams*)	16,500 ml (15,000 grams*)
Ordering Information				
Packaging	1/cs.	1/cs.	1/cs.	1/cs.
Minimum order	1 kit	1 kit	1 kit	1 kit
UPC	054007-92260	054007-91663	054007-92259	054007-92261

* Grams of 4442 High Gel Reenterable Encapsulant based on the density of 1.1 milligram. The density of other reenterable encapsulants will vary.

Companion products needed to complete this closure:

Scotchlok 4460 Shield Bond Connectors, 4442 Reenterable Encapsulant, 4458 Pair Saver and UR Rubber Tape.

Ordering Information for Reentry Kits

	Reentry Kits		
Product number	932R	954R	976R
Packaging kg (lbs.)	1 kit/case 1.4 (3.2)	1 kit/case 2.7 (6.1)	1 kit/case 3.2 (7.2)
Minimum order	1 kit	1 kit	1 kit
UPC	054007-92340	054007-92336	054007-92339

Ordering Information for ABC Closures

	ABC Closures			
Product number	ABC 2.0-9	ABC 2.0-19	ABC 4.2-19	ABC 6.0-19
Splice bundle diameter mm (in.)	50 (2)	50 (2)	105 (4.2)	150 (6)
Max. splice opening mm (in.)	225 (9)	475 (19)	475 (19)	475 (19)
Closure length end to end mm (in.)	600 (32)	1050 (42)	1050 (42)	1050 (42)
MS™ 4000 DWP Module splice maximum pair capacity	50-pr.	100-pr.	600-pr.	1800-pr.
Scotchlok™ Connector splice UR2/UR	25-pr.	50-pr.	300-pr.	600 pr.
Approx. compound required	660 ml (600 grams*)	1320 ml (1200 grams*)	3300 ml (3000 grams*)	5500 ml (5000 grams*)
Ordering Information				
Packaging kg (lbs.)	1/cs. 1.3 (2.8)	1/cs. 2.7 (6.0)	1/cs. 3.4 (7.4)	1/cs. 4.2 (9.3)
Minimum order	1 kit [521053]	1 kit [526074]	1 kit [526075]	1 kit [526076]
UPC	051138-34543	051138-34542	051138-34541	051138-34540

* Grams of 4442 High Gel Reenterable Encapsulant based on the density of 1.1 milligram. The density of other reenterable encapsulants will vary.

Companion products needed to complete this closure:

Scotchlok 4460 Shield Bond Connectors, 4442 Reenterable Encapsulant, 4458 Pair Saver and 2178/2180 E-Z Wrap.

Air Core ALPETH Cable

Spec. 2101

BELL SYSTEM TYPE BHBA (19 AWG) BKMA (24 AWG) BHAA (22 AWG) BKTA (26 AWG)

Core Construction:

Conductors:

- Solid, annealed copper; sizes 19, 22, 24 and 26 AWG

Insulation:

- Solid, high density polyethylene, color coded in accordance with telephone industry standards

Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

Core Assembly:

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color coded unit binder

Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

ALPETH Sheath:

Aluminum Shield:

- Corrugated 0.008" aluminum tape applied longitudinally with an overlap

Jacket:

- Black, linear low density polyethylene

Application(s):

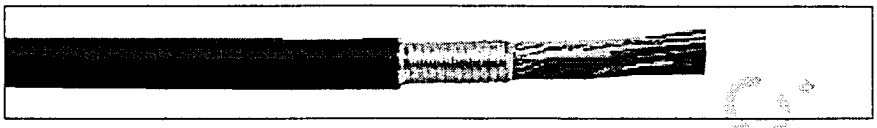
- Intended for aerial installation by attachment to a support strand

Compliance:

- Telcordia (Bellcore) Specification GR-421-CORE

Packaging:

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available



Nominal Cable Data

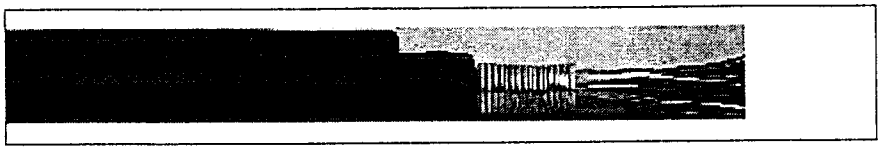
CATALOG NUMBER	PAIRS AWG	O.D. INCHES	WEIGHT LBS/MFT	STANDARD LENGTH (FT)
7506967	25/19	0.79	320	5000
7506975	50/19	1.1	595	3000
7506983	100/19	1.5	1110	3000
7506991	200/19	1.9	2150	1000
7510506	300/19	2.4	3190	1000
7506876	25/22	0.61	185	5000
7506884	50/22	0.79	320	3000
7506892	100/22	1.1	595	3000
6968770	200/22	1.5	1120	3000
7506900	300/22	1.7	1650	1000
6968762	400/22	1.9	2170	1000
6987275	600/22	2.3	3220	1000
6937817	900/22	2.8	4760	700
7506918	25/24	0.52	130	5000
7506926	50/24	0.65	220	3000
6937064	100/24	0.86	395	3000
6964803	200/24	1.1	735	1000
6964811	300/24	1.4	1070	1000
6964795	400/24	1.5	1400	1000
6964787	600/24	1.9	2080	1000
6983381	900/24	2.2	3050	1000
6937833	1200/24	2.5	4050	1000
7506777	1500/24	2.8	5020	800
6937841	1800/24	3.1	5990	800
7506934	25/26	0.47	95	5000
7506942	50/26	0.57	155	3000
7506959	100/26	0.73	265	3000
6982037	200/26	0.97	490	1000
6982029	300/26	1.1	695	1000
7503485	400/26	1.3	905	1000
6987218	600/26	1.5	1320	1000
7508252	900/26	1.8	1970	1000
6937858	1200/26	2.1	2600	1000
6937866	1500/26	2.3	3220	1000
7506785	1800/26	2.5	3840	1000
6937767	2100/26	2.7	4460	1000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

Figure 8 Air Core QUALPETH® Cable

RUS (REA) PE-38 AL

Spec. 2003-F8



Nominal Cable Data

CATALOG NUMBER	PAIRS AWG	O.D. INCHES	WEIGHT LBS/MFT	STANDARD LENGTH (FT)
2012020	6/19	0.49	260	5000
2012021	12/19	0.62	330	5000
2012022	18/19	0.71	395	5000
2012023	25/19	0.81	480	5000
2012024	50/19	1.1	770	2500
2012026	100/19	1.5	1295	2500
2012010	6/22	0.4	220	5000
2012011	12/22	0.49	260	5000
2012000	25/22	0.61	335	5000
2012001	50/22	0.81	485	5000
2012002	100/22	1.1	775	2500
2012003	200/22	1.5	1305	2500
2012015	6/24	0.37	205	5000
2012016	12/24	0.43	230	5000
2012004	25/24	0.54	285	5000
2012005	50/24	0.67	375	5000
2012006	100/24	0.90	560	5000
2012007	200/24	1.2	910	2500
2012008	300/24	1.4	1250	2500

Data subject to change without notice. Contact your Customer Service Representative for latest information.

Core Construction:

Conductors:

- Solid, annealed copper; sizes 19, 22 and 24 AWG

Insulation:

- Solid, high density polyethylene, color coded in accordance with telephone industry standards

Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

Core Assembly:

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color coded unit binder

Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

Figure 8 Qualpeth® Sheath:

Aluminum Shield:

- Corrugated, copolymer coated, 0.008" aluminum tape applied longitudinally with an overlap

Support Messenger:

- A 1/4", 7 strand, extra high strength galvanized steel wire, fully flooded for corrosion protection

Jacket:

- Black, linear low density polyethylene is jacketed in an integral extrusion with the shielded core and support messenger to form a "Figure 8" configuration

Application(s):

- Intended for aerial installation

Compliance:

- RUS (REA) Specification PE-38

Packaging:

- Standard lengths are shipped on non-returnable wood reels
- Non-standard packaging is available upon request

RUS Listed

INTERNATIONAL ISO 9002 CERTIFICATION

BICCGeneral

Test Report

Berk-Tek
A NEXANS COMPANY

Test Report

[redacted]

Optical Specification Requirements

Fiber Type:	62.5/125UM	Fiber Type:	9/125UM
Attenuation @ 850 nm	3.5 dB/km	Attenuation @ 1310 nm	0.5 dB/km
Attenuation @ 1300 nm	1.0 dB/km	Attenuation @ 1550 nm	0.4 dB/km

Batch Number: 0000261731

Test Data

Sub-Unit	Fiber	Atten @ 850nm (dB/km)	Atten @ 1300 nm (dB/km)	Sub-Unit	Fiber	Atten @ 1310nm (dB/km)	Atten @ 1550 nm (dB/km)	Length (Feet)
Blue	Blue	2.92	0.68	Brown	Blue	0.31	0.17	1240
	Orange	2.94	0.68		Orange	0.40	0.24	
	Green	2.96	0.71		Green	0.36	0.19	
	Brown	2.91	0.70		Brown	0.36	0.25	
	Slate	2.96	0.66		Slate	0.34	0.23	
	White	2.92	0.63		White	0.33	0.23	
Orange	Blue	3.00	0.75	Slate	Blue	0.35	0.21	
	Orange	2.97	0.69		Orange	0.33	0.26	
	Green	2.95	0.72		Green	0.36	0.23	
	Brown	3.03	0.71		Brown	0.42	0.24	
	Slate	3.12	0.77		Slate	0.41	0.19	
	White	3.03	0.77		White	0.37	0.23	
Green	Blue	2.87	0.59					
	Orange	2.85	0.56					
	Green	2.88	0.62					
	Brown	2.82	0.58					