

AccuRibbon® LXE Cable



Easy-to-Install, Compact Cable Can Protect Your Network in Outside Plant Environments

Product Description

The AccuRibbon LXE Cable core consists of ribbons of 12 fibers bonded by a UV light-curable matrix material. Up to eighteen ribbons can be contained in the extruded plastic core tube for a total of 216 fibers. Positive identification of each fiber is provided by color coding the fibers within each uniquely identified ribbon.

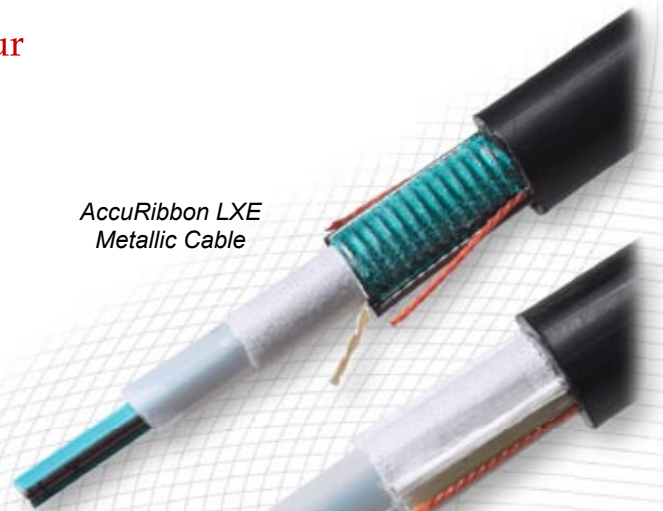
The LXE sheath system achieves a 600-pound (2670 N) tensile rating through the use of linearly applied strength members placed 180 degrees opposite each other. The cable jacket is made of Polyethylene (PE) to provide faster installation (through a lower coefficient of friction) and optimum cable core protection in hostile environments. The small size and light weight make installation easy. In addition, the LXE sheath system passes both the Telecommunications Industry Association/Electronic Industries Association (TIA/EIA) standard cable tests and the more stringent OFS test program.

Why the AccuRibbon LXE Cable?

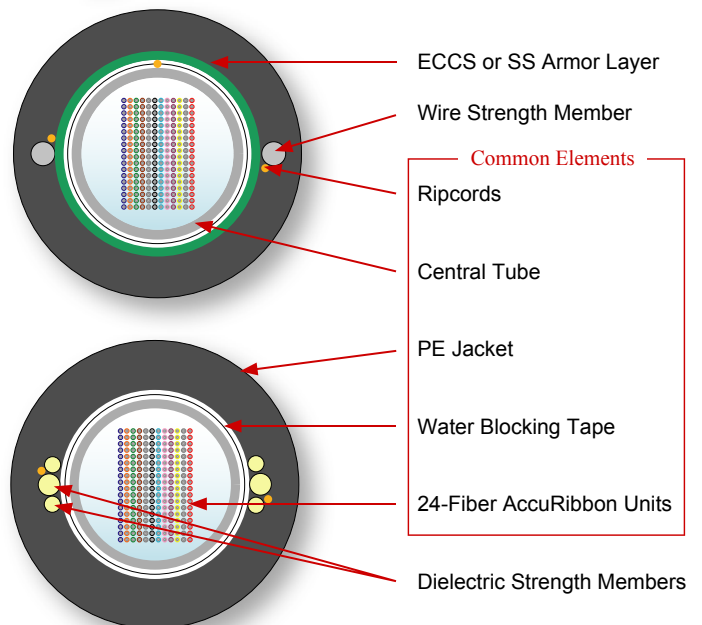
When reliability counts, you can count on LXE Fiber Optic Cable. The LXE Family of products is designed for the loop distribution market, where express entry (accessing fiber in the middle of a cable span) is a common practice. These cables provide excellent optical, mechanical, and environmental performance in compact, reliable designs.

Two sheath options are available: Metallic (LXE-ME) and Dielectric (LXE-DE). The construction of the LXE-ME sheath has an overlapped armor layer of 0.15 mm (0.006 in) thick corrugated electrolytic chrome coated steel (ECCS) that envelops the core tube and has a ripcord under it to ease its removal. The steel armor is coated to inhibit corrosion and to bond to the outer jacket. Two steel wire strength members run longitudinally along the armor, diametric to each other. A ripcord is located next to each steel wire for ease of sheath removal. The sheath is completed with a black PE jacket.

AccuRibbon LXE Metallic Cable



AccuRibbon LXE Dielectric Cable



The LXE-DE sheath has two groups of glass strength members that are longitudinally applied, diametric to each other, over the cable core. Two ripcords, nestled along the strength members, are provided to facilitate sheath entry. The sheath is completed with a black PE jacket.

Continued on next page

For each sheath option, cable entry is extremely easy, even in mid-span. The cable core can be accessed with the strength members remaining intact, so cable tensile strength is maintained. In the metallic versions, electrical continuity is also maintained.

All fibers used in AccuRibbon units are color coded to facilitate individual fiber identification. The individual fiber colors are given in the following table.

Features and Benefits:

- Single-mode, Multimode, AllWave®, and TrueWave® Fibers with *D-LUX*® coating
- Compact size
- Rugged, robust design
- Variety of sheath and core options
- All fibers in central core tube
- Ideally suited to mass splicing techniques
- Durable polyethylene sheath
- High strength to weight ratio
- Reliable network performance
- Excellent optical, mechanical, and environmental performance
- Improved craft productivity (installation and splicing)
- Simplified fiber administration
- Maximum transmission capacity in a compact design
- Protection from environmental hazards and installation abuse.

Fiber Unit Color Code

<i>Fiber</i>	<i>Fiber Color</i>	<i>Fiber</i>	<i>Fiber Color</i>
1	Blue (BL)	7	Red (RD)
2	Orange (OR)	8	Black (BK)
3	Green (GR)	9	Yellow (YL)
4	Brown (BR)	10	Violet (VI)
5	Slate (SL)	11	Rose (RS)
6	White (WH)	12	Aqua (AQ)



AccuRibbon Fiber Unit

Specifications for Dielectric and Metallic Cable

	<i>Fiber Count</i>			
	<i>(12 - 144 Fibers)</i>		<i>(156 - 216 Fibers)</i>	
	<i>Core Outside Diameter (OD) - mm (in.)</i>			
	7.9 (0.31)		10.4 (0.41)	
<i>Sheath Type</i>	<i>Cable Diameter and Mass</i>			
	<i>OD</i>		<i>Mass</i>	
	<i>mm (in.)</i>	<i>kg/km (lbm/kft)</i>	<i>mm (in.)</i>	<i>kg/km (lbm/kft)</i>
Metallic LXE-ME	15.5 (0.61)	223 (156)	18.0 (0.71)	302 (203)
Dielectric LXE-DE	15.5 (0.61)	186 (125)	18.0 (0.71)	253 (170)

Value Statement

With LXE Fiber Optic Cable, your worries about installation abuse and environmental hazards are a thing of the past. With two core options and two sheath options to choose from, you can select a cable configuration that is exactly right for your application. The compact design and high strength-to-weight ratio of the cable make installation easy – particularly in limited duct space. Craft productivity is also maximized by the easy

access to all fibers provided by the central core tube design, and the benefits of mass fusion splicing of fiber ribbons. In addition to these improved fiber administration features, the LXE Fiber Optic Cable provides excellent optical, mechanical, and environmental performance. Count on OFS for solutions that work.

Test Methods for Single-Mode Fiber Optic Cables

Mechanical, Environmental, and Electrical Requirements

Cable Test	Test Method*	Requirement
Tensile Loading and Bending	TIA/EIA-455-33	90% ≤ 0.05 dB Max. Added loss
	IEC 60794-1-E1	100% ≤ 0.15 dB Max. Added Loss
Cyclic Flexing	TIA/EIA-455-104	90% ≤ 0.05 dB Max. Added loss
	IEC 60794-1-E6	100% ≤ 0.15 dB Max. Added Loss
Cyclic Impact	TIA/EIA-455-25	90% ≤ 0.05 dB Max. Added Loss
	IEC 60794-1-E4	100% ≤ 0.15 dB Max. Added Loss
Compressive Loading	TIA/EIA-455-41	90% ≤ 0.05 dB Max. Added Loss
	IEC 60794-1-E3	100% ≤ 0.15 dB Max. Added Loss 440 N/cm (250 lbf/in) Load
Twist	TIA/EIA-455-85	90% ≤ 0.05 dB Max. Added Loss
	IEC 60794-1-E7	100% ≤ 0.15 dB Max. Added Loss
Low and High Temperature Bend	TIA/EIA-455-37	90% ≤ 0.05 dB Max. Added Loss
	IEC 60794-1-E11	100% ≤ 0.15 dB Max. Added Loss
External Freezing	TIA/EIA-455-98	90% ≤ 0.05 dB Max. Added Loss
	IEC 60794-1-F6	100% ≤ 0.15 dB Max. Added Loss
Fiber Stripability	TIA/EIA-455-178	≤ 8.9 N (2 lbf) on unaged and aged fiber
	IEC 60793-1-B6	≥ 1.3N (0.3 lbf) on unaged and aged fiber
Temperature Cycling	TIA/EIA-455-3	≤ 0.05 dB/km Mean Added Loss
	IEC 60794-1-F1	≤ 0.15 dB/km Max Added Loss
Cable Aging	TIA/EIA-455-3	≤ 0.10 dB/km Mean Added Loss
	IEC 60794-1-F1	≤ 0.25 dB/km Max Added Loss
Water Penetration	TIA/EIA-455-82	No flow after 24 hours from one meter length of cable
	IEC 60794-1-F5	
Sheath-to-Ground Dielectric Strength		≥ 20 kV for all armored metallic sheaths
Compound Drip	TIA/EIA-455-81 IEC60794-1-E14	80° C, 24 hours duration, no drip
Lightning Conduction metallic sheaths	TIA/EIA-455-181	Telcordia Category I for all armored

Test Methods for Multimode Fiber Optic Cables

Mechanical, Environmental, and Electrical Requirements

Cable Test	Test Method*	Requirement
Tensile Loading and Bending	TIA/EIA-455-33	0.20 dB Max. Mean Added Loss
	IEC 60794-1-E1	
Cyclic Flexing	TIA/EIA-455-104	0.20 dB Max. Mean Added Loss
	IEC 60794-1-E6	
Cyclic Impact	TIA/EIA-455-25	0.40 dB Max. Mean Added Loss
	IEC 60794-1-E4	
Compressive Loading	TIA/EIA-455-41	0.20 dB Max. Mean Added Loss 440 N/cm (250 lbf/in) Load
	IEC 60794-1-E3	
Twist	TIA/EIA-455-85	0.20 dB Max. Mean Added Loss
	IEC 60794-1-E7	
Low and High Temperature Bend	TIA/EIA-455-37	0.40 dB Max. Mean Added Loss
	IEC 60794-1-E11	
External Freezing	TIA/EIA-455-98	0.20 dB Max. Mean Added Loss
	IEC 60794-1-F6	
Fiber Stripability	TIA/EIA-455-178	≤ 13.4 N (3 lbf) on unaged fiber
	IEC 60793-1-B6	
Temperature Cycling	TIA/EIA-455-3	≤ 0.05 dB/km Mean Added Loss
	IEC 60794-1-F1	≤ 0.15 dB/km Max. Added Loss
Cable Aging	TIA/EIA-455-3	≤ 0.10 dB/km Mean Added Loss
	IEC 60794-1-F1	≤ 0.25 dB/km Max. Added Loss
Water Penetration	TIA/EIA-455-82	No flow after 24 hours from one meter length of cable
	IEC 60794-1-F5	
Sheath-to-Ground Dielectric Strength		≥ 20 kV for all armored metallic sheaths
Compound Drip	TIA/EIA-455-81 IEC60794-1-E14	80° C, 24 hours duration, no drip
Lightning Conduction metallic sheaths	TIA/EIA-455-181	Telcordia Category I for all armored

The AccuRibbon LXE Cable complies with the latest revision of the TIA/EIA Test Method. There is not an exact correspondence of TIA/EIA Fiber Optic Test Procedures (FOTPs) and IEC Test Methods.

AccuRibbon LXE Metallic and Dielectric Cables Ordering Information

Fiber Type *	Sheath Design	
	Metallic	Dielectric
Single-Mode AllWave®	AGSX- <i>NNN</i> -BXC	AGNX- <i>NNN</i> -BXC
	AGSX- <i>NNN</i> -BXD	AGNX- <i>NNN</i> -BXD
Single-Mode Matched Cladding	7GSX- <i>NNN</i> -BXC	7GNX- <i>NNN</i> -BXC
	7GSX- <i>NNN</i> -BXD	7GNX- <i>NNN</i> -BXD
62.5µm Multimode	3GSX- <i>NNN</i> -HXM	3GNX- <i>NNN</i> -HXM
<i>NNN</i> - Number of Fibers 012-216 (AccuRibbon)		
BXC = 0.35/0.25 dB/km at 1310/1550 nm		
BXD = 0.40/0.30 dB/km at 1310/1550 nm		
AllWave Fiber (BXC and BXD) = ≤ .35 dB/km at 1385 nm		
HXM = 3.4 dB/km 200MHz-km at 850 nm		
1.0 dB/km 500MHz-km at 1300 nm		

A 16-character code is required for RUS requested cable – simply add “RUS” to the above codes. Available fiber types are Single-mode Matched Clad, Multimode, AllWave®, and TrueWave® fiber. Other fiber counts, other transmission characteristics and fiber type combinations are available on a special order basis.



For additional information please contact your sales representative. You can also visit our website at <http://www.ofsoptics.com> or call 800-366-3483.

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