FREEDM® LST™ Cables

Features and Benefits

Riser rating
No transition splices when entering buildings

Gel-free waterblocking technology
Craft-friendly cable preparation

Color-coded tubes and fibers
Quick and easy identification

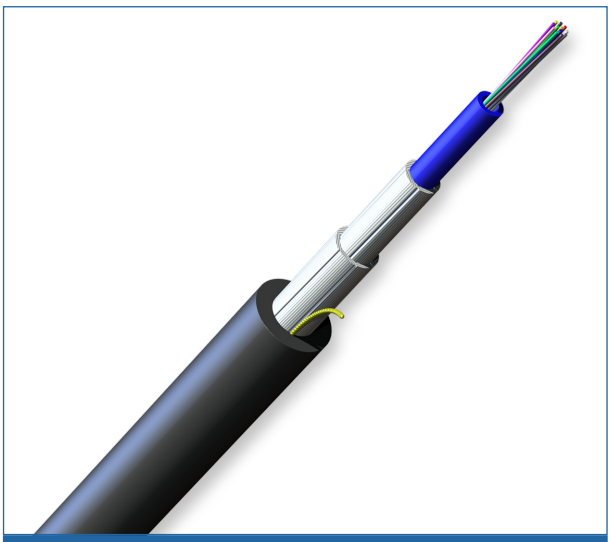
All-dielectric cable construction
Requires no grounding or bonding

UV-resistant, flame-retardant jacket
Rugged, durable and easy to strip

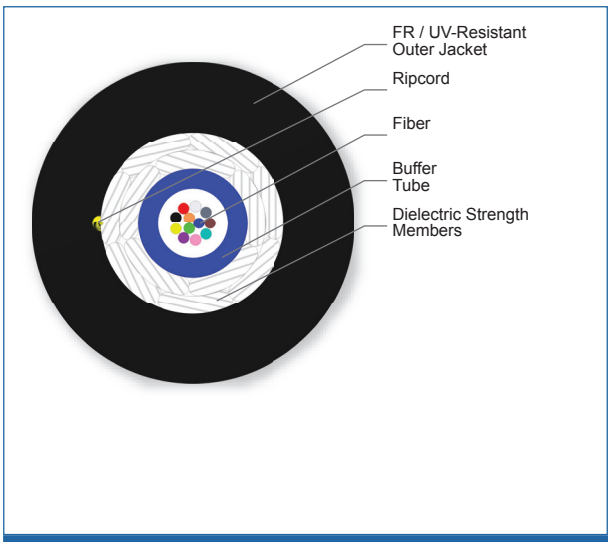
Corning FREEDM® LST™ gel-free cables are flame-retardant, indoor/outdoor, riser-rated cables designed for interbuilding and intrabuilding backbones in aerial, duct and riser applications. With a riser rating, there is no need for a transition splice when entering the building. Available in a compact design, these cables are protected against water penetration by innovative waterblocking tapes and yarns that swell to absorb water. Waterblocking without the use of messy gels provides more efficient and craft-friendly cable preparation, allows easier cable access and simplifies the use of buffer tube fan-out kits. The buffer tubes and fibers in each tube are color coded for quick, easy identification.

Standards

Approval and Listings	National Electrical Code® (NEC®) OFNR, OFNP, CSA OFN FT-4
Common Installations	Outdoor aerial and duct; indoor vertical riser and general purpose horizontal according to NEC Article 770
Design and Test Criteria	ANSI/ICEA S-104-696



FREEDM LST Cables, 12 Fibers | Photo PIM0765



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FREEDM® LST™ Cables

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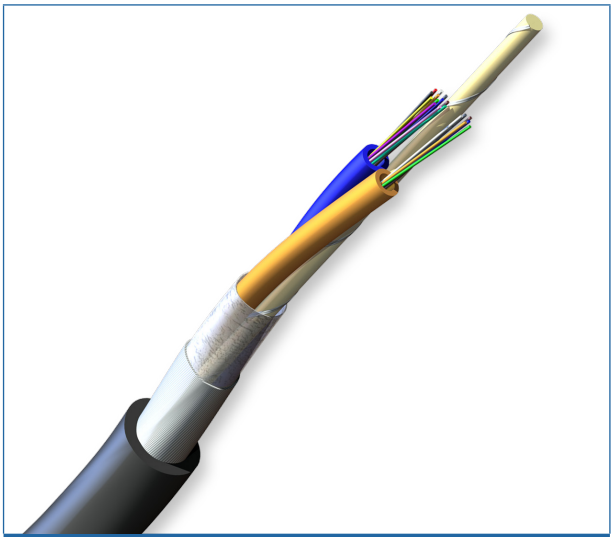
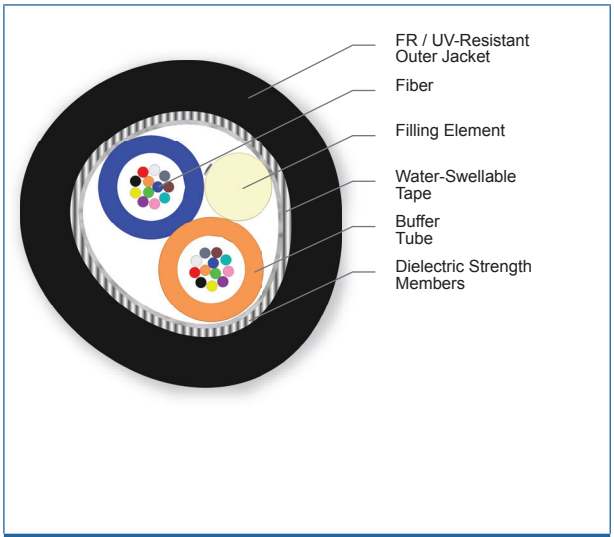


FREEDM LST Cables, 24 Fibers | Photo PIM0767



FREEDM LST Cables, 24 Fibers | Photo PIM1667

Specifications

Temperature Range	
Storage	-40 °C to 70 °C (-40 °F to 158 °F)
Installation	-10 °C to 60 °C (14 °F to 140 °F)
Operation	-40 °C to 70 °C (-40 °F to 158 °F)

** Note: Corning recommends storing indoor/outdoor cable in a proper temperature environment prior to installation to allow the cable temperature to meet installation temperature range specifications for best installation results.*

Mechanical Characteristics Cable							
Fiber Count	Product Type	Number of Tube Positions	Number of Active Tubes	Weight	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation
2	Dielectric	1	1	56 kg/km (38 lb/1000 ft)	7.4 mm (0.29 in)	111 mm (4.4 in)	37 mm (1.5 in)
18 - 24	Dielectric	2	2 - 2	78 kg/km (53 lb/1000 ft)	9.7 mm (0.38 in)	146 mm (5.7 in)	97 mm (3.8 in)
12 - 6	Dielectric	1	1 - 1	56 kg/km (38 lb/1000 ft)	7.4 mm (0.29 in)	111 mm (4.4 in)	37 mm (1.5 in)

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Chemical Characteristics	
RoHS	Free of hazardous substances according to RoHS 2002/95/EG

Transmission Performance

Multimode					
Fiber Core Diameter (µm)	62.5	50	50	50	50
Fiber Category	OM1	OM2	OM3	OM4	OM4 Extended Distance
Fiber Code	K	T	T	T	T
Performance Option Code	30	31	80	90	91
Wavelengths (nm)	850/1300	850/1300	850/1300	850/1300	850/1300
Maximum Attenuation (dB/km)	3.4/1.0	3.0/1.0	3.0/1.0	3.0/1.0	3.0/1.0
Serial 1 Gigabit Ethernet (m)	300/550	750/500	1000/600	1100/600	1100/600
Serial 10 Gigabit Ethernet (m)	33/-	150/-	300/-	550/-	600/-
Min. Overfilled Launch (OFL) Bandwidth (MHz*km)	200/500	700/500	1500/500	3500/500	3500/500
Minimum Effective Modal Bandwidth (EMB) (MHz*km)	220/-	950/-	2000/-	4700/-	5350/-

Notes: 1) *Improved attenuation and bandwidth options available.*
2) *Bend-insensitive single-mode fibers available on request.*
3) *Contact a Corning Customer Care Representative for additional information.*
4) *50 µm multimode fiber macrobend loss ≤ 0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel.*

Single-mode		
Fiber Name	SMF-28e+® fiber	ClearCurve® XB**
Fiber Category	G.652.D	G.652.D/G.657.A1
Fiber Code	E	H
Performance Option Code	01	01
Wavelengths (nm)	1310/1383/1550	1310/1383/1550
Maximum Attenuation (dB/km)	0.4/0.4/0.3	0.4/0.4/0.3
Typical Attenuation* (dB/km)	0.33/0.33/0.19	0.35/0.35/0.20

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FREEDM® LST™ Cables

Ordering Information | *Note: Contact Customer Care at 1-800-743-2675 for other options.*

☐	☐	☐	☐	S	☐	-	T	4	1	☐	☐	D	2	0
1			2	3	4		5	6	7	8		9	10	

1 Select fiber count.
Standard offerings:
002 008 018
004 012 024

2 Select fiber code.
K = 62.5 µm multimode (OM1)
T = 50 µm multimode (OM2/OM3/OM4/OM4+)
E = Single-mode (OS2) SMF-28e+®
H = ClearCurve® XB (OS2)

3 Defines cable type.
S = FREEDM® LST™ Gel-Free Cable

4 Select outer jacket.
F = Indoor/outdoor riser
P = Indoor/outdoor plenum

5 Defines fiber placement.
T = 12 fibers/buffer tube (standard)

6 Defines length markings.
4 = Markings in ft (standard)

7 Defines tensile strength.
1 = See specifications

8 Select performance option code.
30 = 62.5 µm multimode (OM1)
31 = 50 µm multimode (OM2)
80 = 50 µm multimode (OM3)
90 = 50 µm multimode (OM4)
91 = 50 µm multimode (OM4+)
01 = Single-mode (OS2)
(Maximum attenuation 0.4/0.4/0.3 dB/km)

9 Defines cable type.
D = FREEDM LST™ Gel-Free Cable

10 Defines special requirements.
20 = No special requirements

Note: This cable is available in 12 different jacket colors: blue, orange, green, brown, slate, white, red, black, yellow, violet, rose and aqua. Black is the standard jacket color using the part number configurator above. Contact Customer Care at 1-800-743-2675 to order other color options.

RoHS COMPLIANT

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