FREEDM® LST™ Cables

A LANscape®
Solutions Product

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	Durable and easy to strip

RoHS
COMPLIANT

FREEDM LST Cable, 12-Fiber
| Drawing ZA-3766

Flame-Retardant
UV-Resistant Outer Jacket
Ripcord
Water-Swellable Dielectric
Strength Members
Buffer Tube
Fibers

Corning Cable Systems FREEDM® LST™ 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 in fiber counts from 2 to 24 fibers, these cables are protected against water penetration by innovative waterblocking materials 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.

Buffer tubes and fibers in each tube are color-coded for quick, easy identification. The SZ-stranded, loose tube design isolates fibers from installation and environmental rigors and allows for easy midspan access.

FREEDM LST Cables are available in 12 different jacket colors, enabling easy visual identification and segregation of cables while still providing all the required environmental protection of an indoor/outdoor cable jacket.

Available in 50 µm, 62.5 µm, single-mode and hybrid versions, the cable design is also NEC® (National Electrical Code®) listed (OFNR and FT-4).
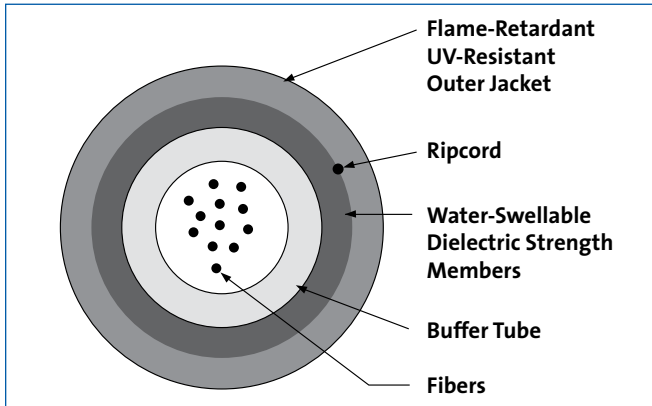
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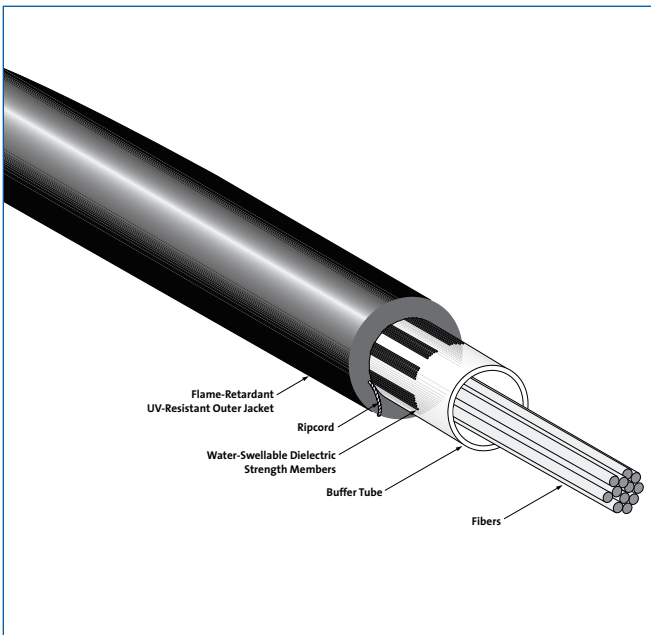
FREEDM LST Cable Jacket is Available in 12 Color Options | Photo 2790

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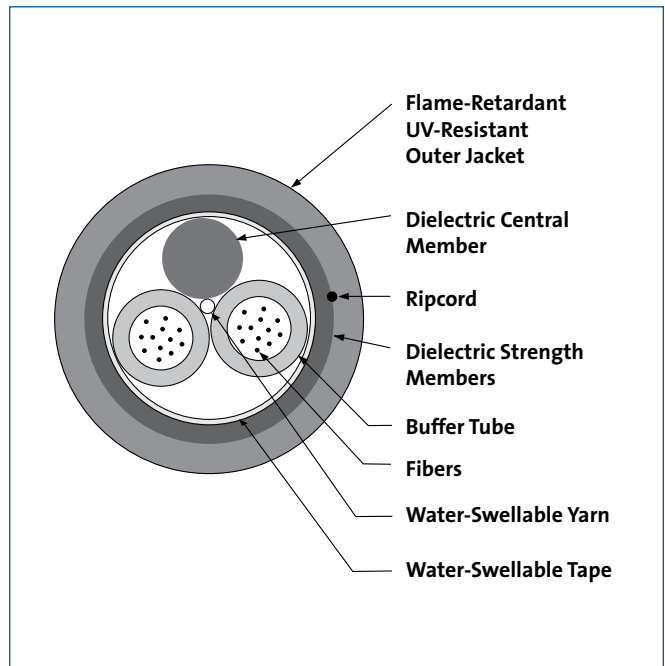# FREEDM® LST™ Cables

The all-dielectric cable construction requires no grounding or bonding and the UV-resistant, flame-retardant jacket is rugged, durable and easy to strip. This cable is also available with interlocking armor for special applications requiring additional mechanical durability and with Gigabit Ethernet and 10 Gigabit Ethernet.

Flame-Retardant
UV-Resistant
Outer Jacket

Ripcord

Water-Swellable
Dielectric Strength
Members

Buffer Tube

Fibers

FREEDM LST Cable, 12-Fiber
| Drawing ZA-3767

Flame-Retardant
UV-Resistant
Outer Jacket

Dielectric Central
Member

Ripcord

Dielectric Strength
Members

Buffer Tube

Fibers

Water-Swellable Yarn

Water-Swellable Tape

FREEDM LST Cable, 24-Fiber
| Drawing ZA-3768

specifications |

Temperatures	Storage:	-40° to +70°C (-40° to +158°F)
	Installation:	-10° to +60°C (+14° to +140°F)
	Operation:	-40° to +70°C (-40° to +158°F)
Approvals and Listings	National Electrical Code® (NEC®) OFNR, 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	

Corning Cable Systems 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.

Buffer tube color may vary for single tube designs containing less than or equal to 12 fibers.

Fiber Count	Nominal Cable Weight kg/km (lb/1000 ft)	Nominal Outside Diameter mm (in)	Maximum Tensile Load Short-Term N (lbf)	Long-Term N (lbf)	Minimum Bend Radius Loaded cm (in)	Installed cm (in)
2-12	56 (38)	7.4 (0.29)	1350 (300)	400 (90)	11.1 (4.4)	3.7 (1.5)
13-24	78 (53)	9.7 (0.38)	2700 (600)	810 (180)	14.6 (5.7)	9.7 (3.8)

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FREEDM® LST™ Cables

transmission performance |

Optical Fiber Type (µm)	62.5 Multimode	50 Multimode	50 Multimode	50 Multimode	50 Multimode	Single-mode*
ISO/IEC 11801 Nomenclature	OM1	OM2	OM3[†]	OM4[†]	OM4[†]	OS2
Fiber Code	K	T	T	T	T	E
Performance Option Code	30	31	80	90	91	01
Wavelength (nm)	850/1300	850/1300	850/1300	850/1300	850/1300	1310/1383/1550
Maximum Attenuation (dB/km)	3.4/1.0	3.0/1.0	3.0/1.0	3.0/1.0	3.0/1.0	0.4/0.4/0.3
Minimum Over Filled 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/ –	– / – / –
Serial 1 Gigabit Ethernet Distance (m)	300/550	750/600	1000/600	1100/600	1100/600	5000/ – / –
Serial 10 Gigabit Ethernet Distance (m)	33/ –	150/ –	300/ –	550[‡]/ –	600[§]/ –	10000/ – /40000

* ITU 652.D compliant.
[†] Meets 0.75 ns optical skew when used in all Corning Cable Systems Plug & Play™ Systems solutions.
[‡] Assumes 1.0 dB maximum total connector/splice loss.
[§] Assumes 0.7 dB maximum total connector/splice loss.

Notes:
1) Improved attenuation and bandwidth options available.
2) Bend-insensitive single-mode fibers available on request.
3) Contact a Corning Cable Systems Customer Service 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.

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TRAINING | SPLICE EQUIPMENT | TEST EQUIPMENT | SPLICE CLOSURES | HARDWARE | CABLE ASSEMBLIES | CONNECTORS | CABLES | PRETERMINATED SYSTEMS

FREEDM® LST™ Cables

ordering information | Contact Customer Service at 800-743-2671 for other options.

□	□	□	□	S	F	-	T	4	1	□	□	D	2	0
	1		2		3		4		5		6			7		8		9		10		11		12		13		14

1-3
Select fiber count.
Standard offerings:
002   006   018
004   012   024

4
Select fiber code
(see Transmission
Performance table).

5 / 12
Defines cable type.
S / D = FREEDM® LST™
         Gel-Free Cable

6
Defines outer jacket.
F = Indoor/outdoor riser

7
Defines fiber placement.
T = 12 fibers/buffer tube
       (standard)

8
Defines length
markings.
4 = Markings in feet
       (standard)

9
Defines tensile strength
(see Specifications).

10-11
Select performance
option code (see
Transmission
Performance table).

13-14
Defines special
requirements.
20 = No special
        requirements

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

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