

FREEDM® LST™ Loose Tube, Gel-Free Cable, Riser

CORNING

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.

Note: This cable is available in 12 different jacket colors – blue, orange, green, brown, slate, white, red, black, yellow, violet, rose and aqua. The colored jacket allows for easy visual identification of the cables while still providing all of the required environmental protection of an indoor/outdoor cable jacket. Black is the standard jacket color using the part numbers shown here. Contact Customer Care at 1-800-743-2675 to order other color options.

Features and Benefits

Riser rating

No transition splices when entering buildings

Gel-free waterblocking technology

Craft-friendly cable preparation

Color-coded fibers

Quick and easy identification

All-dielectric construction

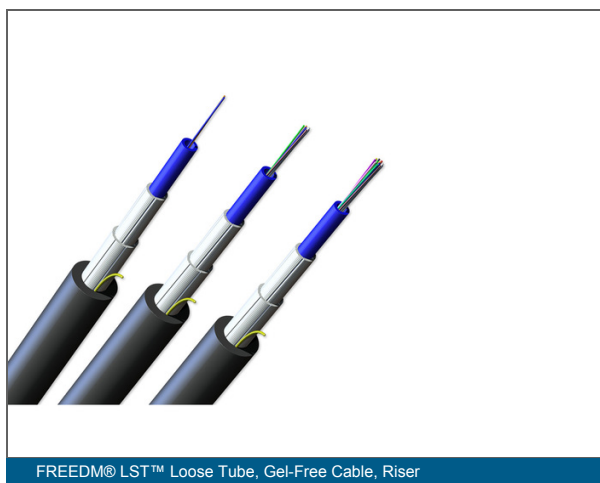
Requires no grounding or bonding

UV-resistant, flame-retardant jacket

Rugged, durable and easy to strip

Common installations

Outdoor aerial and duct



FREEDM® LST™ Loose Tube, Gel-Free Cable, Riser

FREEDM® LST™ Loose Tube, Gel-Free Cable, Riser

CORNING

Standards

RoHS	Free of hazardous substances according to RoHS 2011/65/EU
------	---

Specifications

General Specifications

Environment	Indoor/Outdoor
Product Type	Dielectric
Cable Type	Loose Tube
Flame Rating	Riser (OFNR)

Temperature Range

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

Design Characteristics Cable

Fiber Count	Fibers per Tube	Number of Tube Positions	Number of Active Tubes
2	2	1	1
4	4	1	1
6	6	1	1
8	8	1	1
12	12	1	1
18 - 24		2	2

FREEDM® LST™ Loose Tube, Gel-Free Cable, Riser

CORNING

Mechanical Characteristics Cable

Fiber Count	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Max. Tensile Strength, Short-Term	Max. Tensile Strength, Long-Term	Cable Weight
2 - 12	7.4 mm (0.29 in)	111 mm (4.37 in)	37 mm (1.46 in)	1350 N (303.49 lbf)	400 N (89.92 lbf)	56 kg/km (37.63 lb/1000 ft)
18 - 24	9.7 mm (0.38 in)	146 mm (5.75 in)	97 mm (3.82 in)	2700 N (606.98 lbf)	810 N (182.1 lbf)	78 kg/km (52.41 lb/1000 ft)

Transmission Performance

Multimode

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

FREEDM® LST™ Loose Tube, Gel-Free Cable, Riser

CORNING

Transmission Performance

Single-mode		
Fiber Name	Single-mode (OS2) - Bend-Improved Single-mode (OS2)	ClearCurve® ZBL
Performance Option Code	01	01
Fiber Category	OS2	OS2
Wavelengths	1310 nm / 1383 nm / 1550 nm	1310 nm / 1383 nm / 1550 nm
Fiber Code	E - Z	U
Maximum Attenuation	0.4 dB/km / 0.4 dB/km / 0.3 dB/km	0.4 dB/km / 0.4 dB/km / 0.30 dB/km

□ □ □ □ S F - 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+®
Z = Single-mode (OS2) SMF-28® Ultra fiber

3 Defines cable type.

S = LST cable

4 Defines outer jacket.

F = Indoor/outdoor riser

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 = Gel-free cable

10 Defines special requirements.

20 = No special requirements



Corning Optical Communications LLC • 4200 Corning Place • Charlotte, NC • 28216 • United States
800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/opcomm

A complete listing of the trademarks of Corning Optical Communications is available at www.corning.com/opcomm/trademarks. All other trademarks are the properties of their respective owners. Corning Optical Communications is ISO 9001 certified. © 2025 Corning Optical Communications. All rights reserved.