FREEDM® LST™ Indoor/Outdoor, Gel-Free Cables, Plenum

Features and Benefits

Plenum and 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

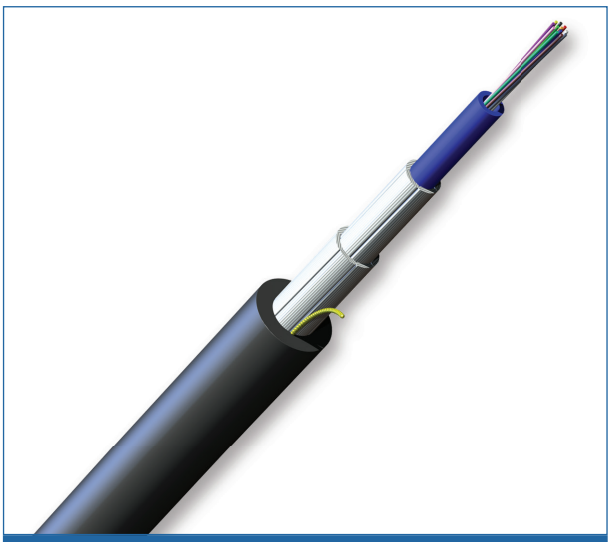
Common installations
Outdoor aerial and duct; indoor vertical riser and general purpose horizontal according to NEC Article 770

Corning FREEDM® LST™ gel-free cables are flame-retardant, indoor/outdoor, plenum- and riser-rated cables designed for interbuilding and intrabuilding backbones in aerial, duct and riser applications. The loose tube design offers mechanical ruggedness and environmental durability while the all-dielectric cable construction requires no grounding or bonding. The water-swellable yarn eliminates the need for gel-filling compound and allows more efficient and craft-friendly cable preparation.The 250 µm color-coded fibers allow quick and easy identification during installation.

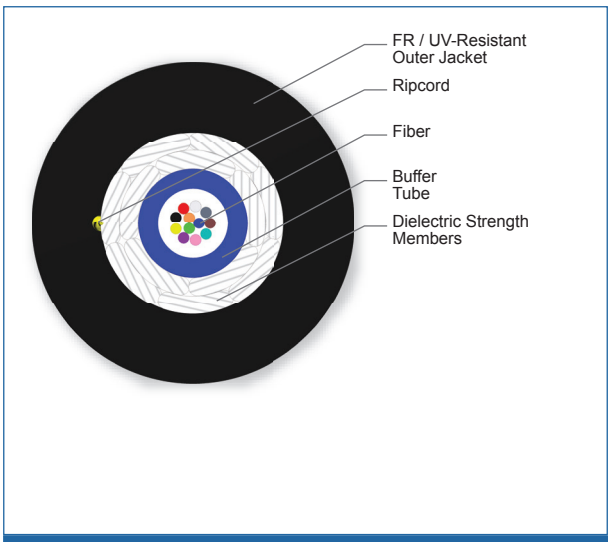
With an indoor/outdoor rating there is no need for a transition splice when entering the building. Available in a compact design, these cables are protected against water penetration by innovative waterblocking tapes and yarns that swell to absorb water. Waterblocking without the use of messy gels provides 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

Listings	National Electrical Code® (NEC®) OFNP
Design and Test Criteria	ANSI/ICEA S-104-696, CSA FT-6

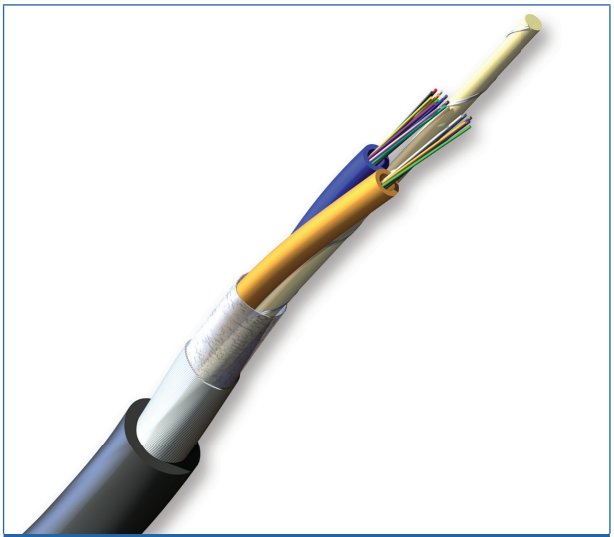


FREEDM LST Cables, 12 Fibers | Photo PIM0765

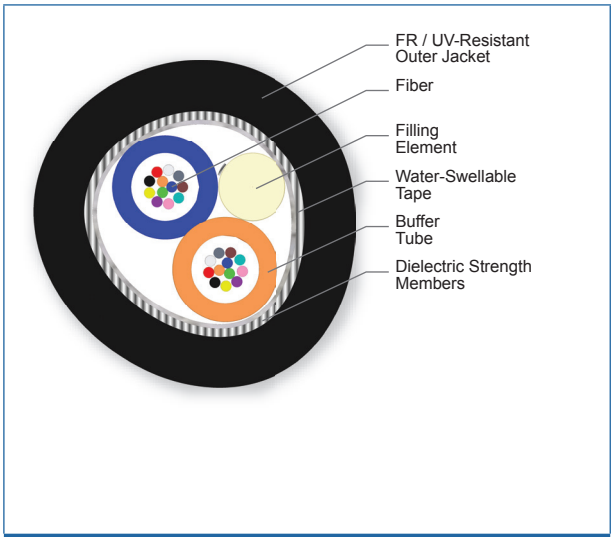


FREEDM LST Cables, 12 Fibers | Photo PIM1665

FREEDM® LST™ Indoor/Outdoor, Gel-Free Cables, Plenum



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	0 °C to 60 °C (32 °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	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Max. Tensile Strength, Short-Term	Max. Tensile Strength, Long-Term	Weight
6 - 12	7.4 mm (0.29 in)	111 mm (4.4 in)	74 mm (2.9 in)	1350 N (300 lbf)	400 N (90 lbf)	60.98 kg/km (40.98 lb/1000 ft)

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

FREEDM® LST™ Indoor/Outdoor, Gel-Free Cables, Plenum

CORNING

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/-

** 50 µm multimode fiber (OM4) T91 10 Gigabit Ethernet Distance assumes 0.7 dB maximum total connector/splice loss.*
** 50 µm multimode fiber (OM4) T90 10 Gigabit Ethernet distance assumes 1.0 dB maximum total connector/splice loss.*
** 50 µm multimode fiber (OM3/OM4) meets 0.75 ns optical skew when used in all Corning Plug & Play™/EDGE™ systems solutions.*

Single-mode		
Fiber Name	Single-mode (OS2)	SMF-28® Ultra fiber
Fiber Category	G.652.D	G.657.A1
Fiber Code	E	Z
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

** For more information on typical attenuation please see the Corning whitepaper at http://csmedia.corning.com/opcomm//Resource_Documents/whitepapers_rl/LAN-1863-AEN.pdf*

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

CORNING

FREEDM® LST™ Indoor/Outdoor, Gel-Free Cables, Plenum

CORNING

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

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

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

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.
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 = 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

Corning Optical Communications LLC • PO Box 489 • Hickory, NC 28603-0489 USA
800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/opcomm

CORNING