FREEDM® LST™ Gel-Free Interlocking Armored Cables

Features and Benefits

Flexible, interlocking armor design
Seven times crush protection compared to unarmored cables

Gel-free waterblocking technology
Craft-friendly cable preparation

Color-coded tubes and fibers
Quick and easy identification

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

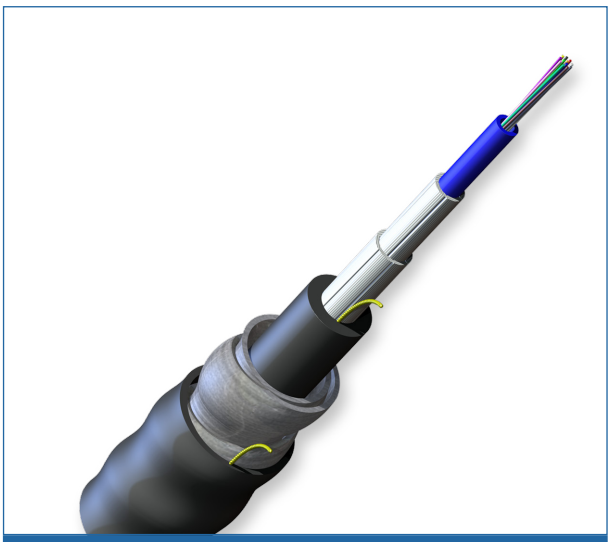
Standards

Approval and Listings	National Electrical Code® (NEC®) OFCR, CSA OFC 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

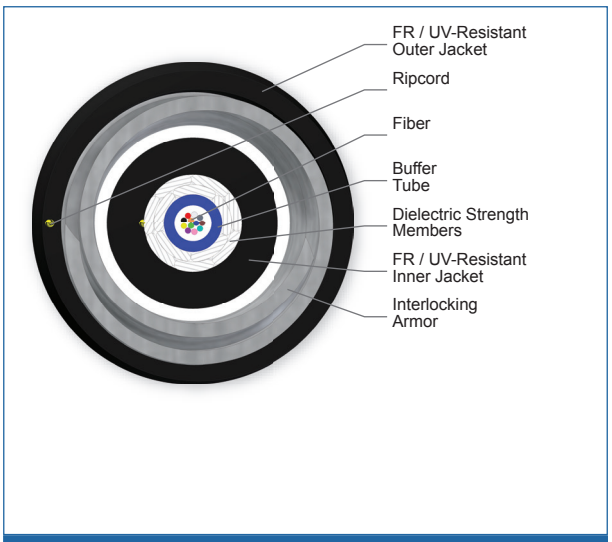
Corning FREEDM® LST™ gel-free interlocking armored cables are flame-retardant, indoor/outdoor, riser-rated cables designed for interbuilding and intrabuilding backbones in aerial, duct and riser applications. Encased in a spirally wrapped, aluminum interlocking armor for ruggedness and superior crush resistance, these cables are ideal for industrial and heavy traffic areas and installations requiring extra protection for optical cables and for high-fiber-count trunking applications in areas with limited conduit or vault space. The riser rating precludes the need for a transition splice when entering the building.

Available in a compact design in fiber counts from two to 24 fibers, these cables are protected against water penetration by innovative waterblocking materials that swell to absorb water, without the use of messy gels, to provide more efficient and craft-friendly cable preparation. This waterblocking technology makes cable access easier and simplifies the use of buffer tube fan-out kits.

The SZ-stranded, loose tube design isolates fibers from installation and environmental rigors and allows for easy mid-span access. The cable design is also National Electrical Code (NEC) listed (OFNR and FT-4). The all-dielectric cable construction requires no grounding or bonding, and the UV-resistant, flame-retardant jacket is rugged, durable and easy to strip.

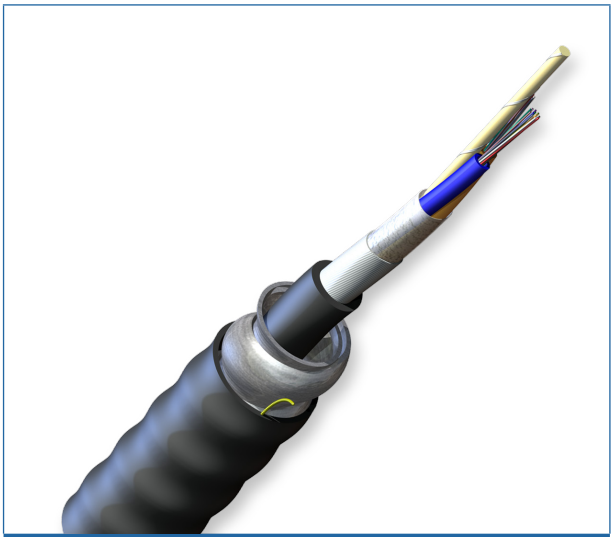


FREEDM LST Gel-Free Interlocking Armored Cables, 12 Fibers | Photo PIM0803

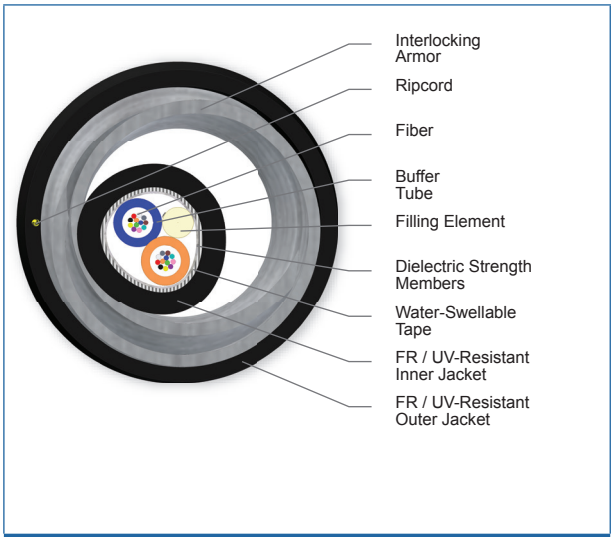


FREEDM LST Gel-Free Interlocking Armored Cables, 12 Fibers | Photo PIM1703

FREEDM® LST™ Gel-Free Interlocking Armored Cables



FREEDM LST Gel-Free Interlocking Armored Cables, 24 Fibers | Photo PIM0805



FREEDM LST Gel-Free Interlocking Armored Cables, 24 Fibers | Photo PIM1705

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.*

Max. Tensile Strength, Short-Term	2700 N (600 lbf)
Max. Tensile Strength, Long-Term	810 N (180 lbf)

Mechanical Characteristics Cable						
Fiber Count	Nominal Core Diameter	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Weight	Product Type
2 - 12	8.0 mm (0.31 in)	15 mm (0.59 in)	225 mm (8.9 in)	150 mm (5.9 in)	182 kg/km (122 lb/1000 ft)	Interlocking armor
18 - 24	11.2 mm (0.44 in)	18.8 mm (0.74 in)	282 mm (11.1 in)	188 mm (7.4 in)	259 kg/km (174 lb/1000 ft)	Interlocking armor

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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
Fiber Category	G.652.D
Fiber Code	E
Performance Option Code	01
Wavelengths (nm)	1310/1383/1550
Maximum Attenuation (dB/km)	0.4/0.4/0.3
Typical Attenuation* (dB/km)	0.33/0.33/0.19

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

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

1 Select fiber count.
Standard offerings:
002 006 018
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+® fiber
H = ClearCurve® XB Single-mode (OS2)

3 Defines cable type.
S = FREEDM® LST™ Gel-Free 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)
(Max. attenuation 0.4/0.4/0.3 dB/km)

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

10 Defines special requirements.
A1 = Interlocking armor with riser-rated outer jacket

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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