

FREEDM® LST™ Gel-Free Cables

A LANscape® Pretium™ Solutions Product

Corning
Cable Systems

Applications

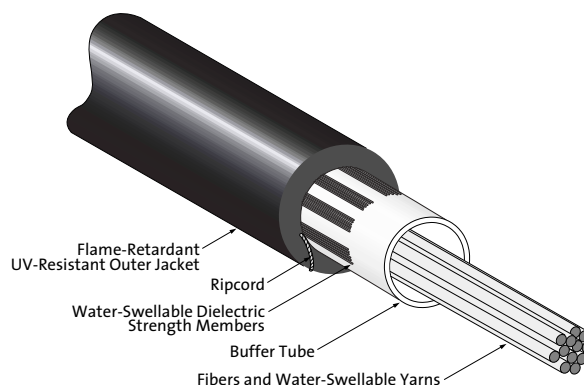
- Inter- and intrabuilding backbones in aerial, duct and riser applications

Description

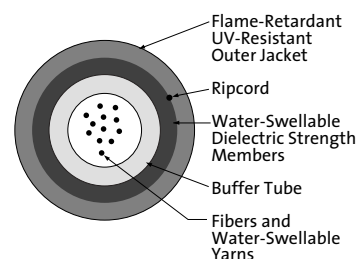
Corning Cable Systems FREEDM® LST™ Gel-Free Cables are flame-retardant, indoor/outdoor, riser-rated cables suitable for installation in aerial, duct and riser applications. Because of the riser rating, there is no need for a transition splice when entering the building. Using water-swallowable yarns both inside and surrounding the buffer tubes, these cables are fully water-blocked without the use of messy gels, providing for more efficient and craft-friendly cable preparation. Available in a compact design from 2 to 24 fibers, the buffer tubes and fibers in each tube are color-coded for quick, easy identification.

Features / Benefits

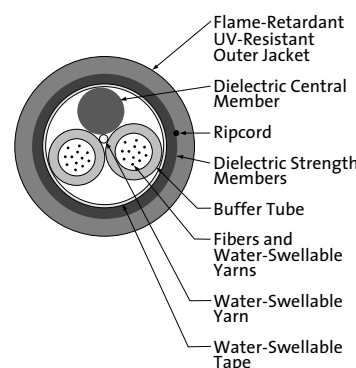
- Gel-free design is fully waterblocked using craft-friendly, water-swallowable yarns, making cable access and use of buffer tube fan-out kits simple
- Available in 62.5 μm , 50 μm , single-mode and hybrid versions
- Standard 3 mm buffer tube size reduces the number of access tools required by craftspersons
- Flame-retardant jacket is rugged, durable and easy to strip
- Compact design, all-dielectric cable construction requires no grounding or bonding
- Color-coded fibers and buffer tubes for quick and easy identification during installation
- No preferential bend axis for easier installation and better handling
- UV-resistant and listed OFNR and FT-4
- Compatible with buffer tube fan-out kit for rapid, simple termination
- Available with interlocking armor
- Available with Gigabit Ethernet and 10 Gigabit Ethernet performance



FREEDM LST Gel-Free Cable | Drawing ZA-2470



12-Fiber FREEDM LST Gel-Free Cable | Drawing ZA-2470



24-Fiber FREEDM LST Gel-Free Cable | Drawing ZA-2470



Product Specifications

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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.

| Fiber Count | Nominal Weight kg/km (lb/1000 ft) | Nominal 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 | 55 (37) | 8.0 (0.31) | 1330 (300) | 400 (90) | 12.0 (4.9) | 8.0 (3.1) |
| 13-24 | 72 (48) | 11.2 (0.44) | 2700 (600) | 810 (180) | 16.8 (6.6) | 11.2 (4.4) |

Transmission Performance

| Fiber Code | K | C | S | S | E |
|--|------------------------------|----------------------------|----------------------------|----------------------------|------------------------------------|
| Performance Option Code | 30 | 31 | 80 | 90 | 01 |
| Fiber Type | 62.5/125 µm (850/1300 nm) | 50/125 µm (850/1300 nm) | 50/125 µm (850/1300 nm) | 50/125 µm (850/1300 nm) | Single-mode (1310/1383/1550 nm) |
| Maximum Attenuation (dB/km) | 3.5/1.0 | 3.5/1.5 | 3.0/1.5 | 3.0/1.5 | 0.4/0.4/0.3 |
| Minimum LED Bandwidth (MHz•km) | 200/500 | 500/500 | 1500/500 | 1500/500 | - / - / - |
| Minimum Effective Modal Bandwidth (MHz•km) | *220/ - | *510/ - | **2000/ - | ***4700/ - | - / - / - |
| Serial Gigabit Ethernet Distance (m) | 300/550 | 600/600 | 1000/600 | 1000/600 | 5000/ - / - |
| Serial 10 Gigabit Ethernet Distance (m) | 33/ - | 82/ - | 300/ - | ****550/ - | 10000/40000 |

* As predicted by RML BW, per TLA/ELA 455-204 and IEC 60793-1-41, for intermediate performance laser-based systems (up to 1 Gb/s).

** As predicted by minEMBc, per TLA/ELA 455-220 and IEC 60793-1-49, for high performance laser-based systems (up to 10 Gb/s).

*** As predicted by minEMBc, per TLA/ELA 455-220 and IEC 60793-1-49, for high performance laser-based systems (up to 10 Gb/s).

**** The 550 m distance is equivalent to a 4700 EMB system with standards-compliant transceiver and fiber characteristics, 3.0 dB/km cable attenuation and 1.0 dB total connector loss.

