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

12 F, 50 µm multimode (OM2)

CORNING

Corning Cable Systems 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. The SZ-stranded, loose tube design isolates fibers from installation and environmental rigors and allows for easy midspan 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.

Features and Benefits

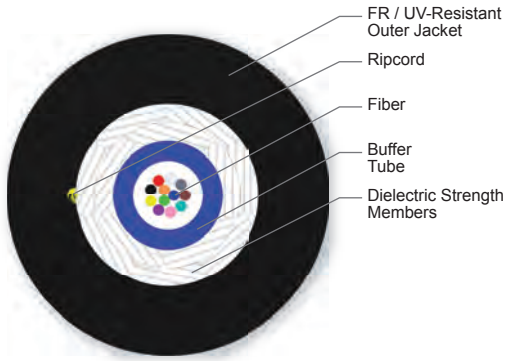
Riser rating
No transition splices when entering buildings

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



Cross Section of Part Number: 012TSF-T4131D20

Standards

Approval and Listings	National Electrical Code® (NEC®) OFNR, CSA OFN FT-4

RoHS COMPLIANT

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Common Installations	Outdoor lashed aerial and duct; indoor vertical riser and general purpose horizontal according to National Electrical Code® (NEC®) Article 770
Design and Test Criteria	ANSI/ICEA S-104-696

Specifications

General Specifications	
Environment	Indoor / Outdoor
Application	Aerial, Direct Buried, Duct, General Purpose Horizontal, Vertical Riser,
Cable Type	Loose Tube
Product Type	Dielectric
Flame Rating	Riser (OFNR)
Fiber Category	50 µm MM (OM2)

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)

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Design	
Fiber Count	12
Fiber coloring	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Fibers per Tube	12
Number of Tube Positions	1
Number of Active Tubes	1
Tensile strengths elements / armoring	Dielectric strength membersWater-swellable dielectric strength members
Ripcord	1
Outer jacket material	Flame-Retardant, UV-Resistant
Outer jacket color	Black

Mechanical Characteristics Cable	
Weight	56.0 kg/km (38.0 lb/1000 ft)
Nominal Outer Diameter	7.4 mm (0.29 in)
Max. Tensile Strengths, Short-Term	1350 N (300 lbf)
Max. Tensile Strengths, Long-Term	400 N (90 lbf)
Min. Bend Radius Installation	111.0 mm (4.4 in)
Min. Bend Radius Operation	37.0 mm (1.5 in)

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

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Fiber Specifications

Optical Characteristics (cabled)	
Fiber Core Diameter	50.0 µm
Fiber Type	Multimode
Fiber Category	OM2
Fiber Code	T
Performance Option Code	31
Wavelengths	850 nm / 1300 nm
Maximum Attenuation	3.0 dB/km / 1.0 dB/km
Min. Overfilled Launch (OFL) Bandwidth	700 MHz*km / 500 MHz*km
Minimum Effective Modal Bandwidth (EMB)	950 MHz*km / -
Serial 1 Gigabit Ethernet	750 m / 600 m
Serial 10 Gigabit Ethernet	150 m / -

Notes: 1) 50 µm multimode fiber macrobend loss ≤ 0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel
2) Improved attenuation and bandwidth options available
3) Bend-insensitive single-mode fibers available on request
4) Contact a Corning Cable Systems Customer Service Representative for additional information

Ordering Information

Order Number	012TSF-T4131D20
Product description	FREEDM® LST™ Single-Tube, Gel-Free Cable, Riser, 12 F, 50 µm multimode (OM2)

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