

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

24 F, 50 μm multimode, extended 10G distance (OM4)

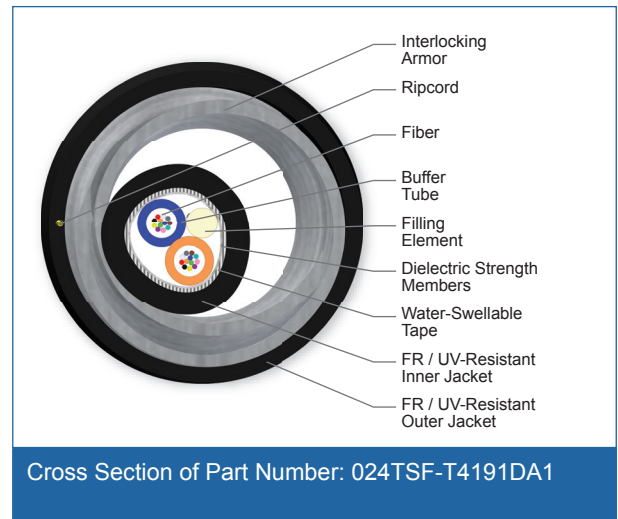
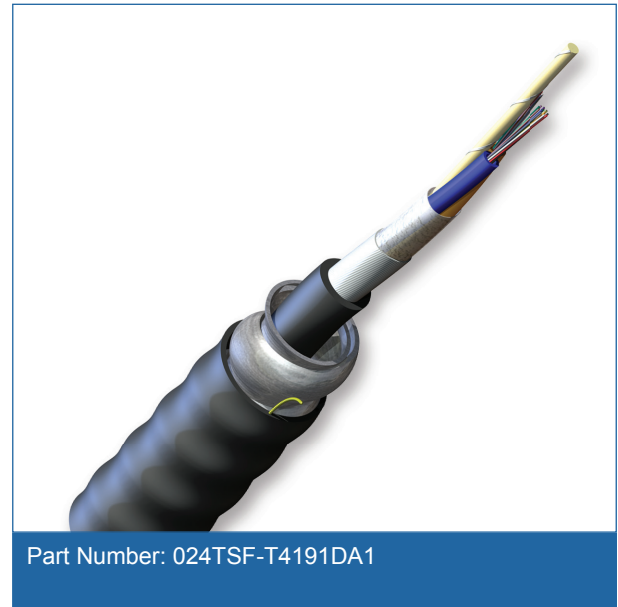
CORNING

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.

These cables are protected against water penetration by innovative waterblocking tapes and yarns 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 buffer tubes and fibers in each tube are color coded for quick, easy identification. The SZ-stranded, loose tube design isolates fibers from installation, environmental rigors and allows for easy mid-span access.

The cable design is also National Electrical Code® (NEC®) listed (OFCR and FT-4) and meets NEC Article 770. The flexible, interlocking armored design offers over seven times the crush protection compared to unarmored cables (as characterized to ICEA-696) and allows easy one-step installation, thereby reducing the overall installation costs. The UV-resistant, flame-retardant jacket is rugged, durable and easy to strip.

*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

### 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

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## Standards

**Approvals and Listings** National Electrical Code<sup>®</sup> (NEC<sup>®</sup>) 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

## Specifications

General Specifications	
Environment	Indoor/Outdoor Cables
Application	Aerial, Direct Buried, Duct, General Purpose Horizontal, (Vertical Riser)
Cable Type	Loose Tube
Product Type	Interlocking armor
Flame Rating	Riser (OFCR)
Fiber Category	50 µm MM (OM4+)

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)

Cable Design	
Central Element	Dielectric
Fiber Count	24
Fiber Coloring	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Fibers per Tube	12, 12
Number of Tube Positions	2
Number of Active Tubes	2
Buffer Tube Color Coding	Blue, Orange
Tape	Water-swellaable

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## Cable Design

Tensile Strength Elements and/or Armoring - Layer 1	Dielectric strength members
Number of Ripcords	1
Inner Jacket Material	Flame-Retardant, UV-Resistant
Tensile Strength Elements and/or Armoring - Layer 2	Interlocking armor
Outer Jacket Material	Flame-Retardant, UV-Resistant
Outer Jacket Color	Black

## Mechanical Characteristics Cable

Max. Tensile Strength, Short-Term	2700 N (600 lbf)
Max. Tensile Strength, Long-Term	810 N (180 lbf)
Nominal Core Diameter	11.2 mm (0.44 in)
Nominal Outer Diameter	18.8 mm (0.74 in)
Min. Bend Radius Installation	282 mm (11.1 in)
Min. Bend Radius Operation	188 mm (7.4 in)
Weight	259 kg/km (174 lb/1000 ft)

## Chemical Characteristics

RoHS	Free of hazardous substances according to RoHS 2011/65/EU
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## Fiber Specifications

### Optical Characteristics (cabled)

Fiber Core Diameter	50 µm
Fiber Category	OM4 Extended Distance
Fiber Code	T
Performance Option Code	91
Wavelengths	850 nm / 1300 nm
Maximum Attenuation	3.0 dB/km / 1.0 dB/km
Serial 1 Gigabit Ethernet	1100 m / 600 m
Serial 10 Gigabit Ethernet	600 m / -

\* Assumes 0.7 dB maximum total connector/splice loss.

\* Meets 0.75 ns optical skew when used in all Corning Plug and Play<sup>™</sup>/EDGE<sup>™</sup> systems solutions.

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 Customer Care Representative for additional information.

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## Fiber Specifications

Optical Characteristics (cabled)	
Min. Overfilled Launch (OFL) Bandwidth	3500 MHz*km / 500 MHz*km
Minimum Effective Modal Bandwidth (EMB)	5350 MHz*km / -

\* Assumes 0.7 dB maximum total connector/splice loss.

\* Meets 0.75 ns optical skew when used in all Corning Plug and Play<sup>™</sup>/EDGE<sup>™</sup> systems solutions.

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## Ordering Information

Part Number	024TSF-T4191DA1
Product Description	FREEDM <sup>®</sup> LST <sup>™</sup> Loose Tube, Gel-Free, Interlocking Armored Cable, Riser, 24 F, 50 $\mu$ m multimode, extended 10G distance (OM4)
EAN Code	4056418174419



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