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



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

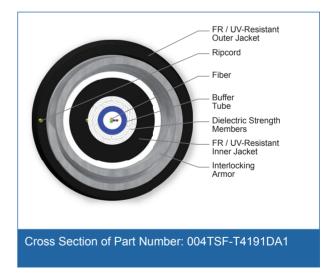
Craft-friendly cable preparation

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® (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

### **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	
Fiber Count	4
Fiber Coloring	Blue, Orange, Green, Brown
Fibers per Tube	4
Number of Tube Positions	1
Number of Active Tubes	1
Tensile Strength Elements and/or Armoring - Layer 1	Water-swellable dielectric strength members
Number of Ripcords	1
Inner Jacket Material	Flame-Retardant, UV-Resistant
Tensile Strength Elements and/or Armoring - Layer 2	Interlocking armor



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Cable Design	
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	8.0 mm (0.31 in)
Nominal Outer Diameter	15 mm (0.59 in)
Min. Bend Radius Installation	225 mm (8.9 in)
Min. Bend Radius Operation	150 mm (5.9 in)
Weight	182 kg/km (122 lb/1000 ft)

Chemical Characteristics	
RoHS	Free of hazardous substances according to RoHS 2011/65/EU

### Fiber Specifications

Optical Characteristics (cabled)	
Fiber Core Diameter	50 μm
Fiber Category	OM4 Extended Distance
Fiber Code	Т
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 / -
Min. Overfilled Launch (OFL) Bandwidth	3500 MHz*km / 500 MHz*km
Minimum Effective Modal Bandwidth (EMB)	5350 MHz*km / -

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

Notes: 1) 50  $\mu$ m multimode fiber macrobend loss  $\leq$  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.



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

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



#### **Ordering Information**

Part Number	004TSF-T4191DA1
Product Description	FREEDM® LST™ Single-Tube, Gel-Free, Interlocking Armored Cable, Riser, 4 F, 50 µm multimode, extended 10G distance (OM4)
EAN Code	4056418155708



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