

FREEDM® Loose Tube, Gel-Free Cable, Riser

12 F, 50 µm multimode (OM4)

CORNING

Corning FREEDM® loose tube gel-free riser cables are flame-retardant, indoor/outdoor, riser-rated cables designed for interbuilding and intrabuilding backbones in aerial, duct and riser applications. These cables are protected against water penetration by innovative waterblocking materials that swell to absorb water. Waterblocking without the use of messy gels provides more efficient and craft-friendly cable preparation. It also 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 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.

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

Gel-free waterblocking technology

Craft-friendly cable preparation

Loose tube design

Mechanical ruggedness and environmental durability

Color-coded tubes and fibers

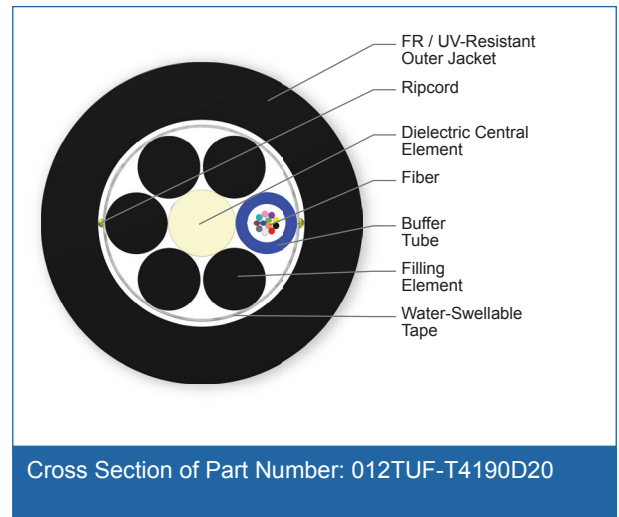
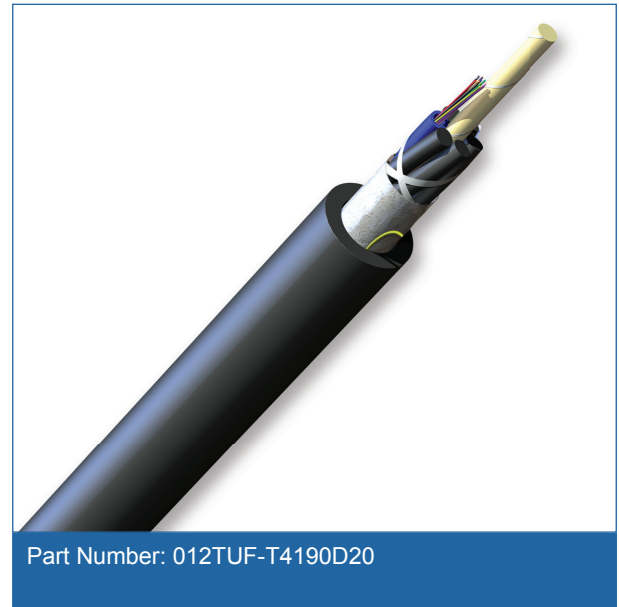
Quick and easy identification

All-dielectric construction

Requires no grounding or bonding

Common installations

Outdoor lashed aerial and duct; indoor vertical riser and general purpose horizontal according to National Electrical Code (NEC) Article 770



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Standards

Listings National Electrical Code[®]
(NEC[®]) OFNR

Design Criteria CSA OFN FT-4

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 | Dielectric |
| Flame Rating | Riser (OFNR) |
| Fiber Category | 50 μ m 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 | 12 |
| Fiber Coloring | Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua |
| Fibers per Tube | 12 |
| Number of Tube Positions | 6 |
| Number of Active Tubes | 1 |
| Buffer Tube Color Coding | Blue |
| Buffer Tube Diameter | 2.5 mm (0.1 in) |
| Number of Filling Elements | 5 |
| Tape | Water-swellaable |
| Number of Ripcords | 2 |

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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) |
| Min. Bend Radius Installation | 195 mm (7.6 in) |
| Min. Bend Radius Operation | 130 mm (5.1 in) |
| Nominal Outer Diameter | 13 mm (0.51 in) |
| Weight | 146 kg/km (98 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 |
| Fiber Code | T |
| Performance Option Code | 90 |
| 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 | 550 m / - |
| Min. Overfilled Launch (OFL) Bandwidth | 3500 MHz*km / 500 MHz*km |
| Minimum Effective Modal Bandwidth (EMB) | 4700 MHz*km / - |

* Assumes 1.0 dB maximum total connector/splice loss.

* Meets 0.75 ns optical skew when used in all Corning Plug and Play™/EDGE™ 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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Ordering Information

| | |
|---------------------|--|
| Part Number | 012TUF-T4190D20 |
| Product Description | FREEDM [®] Loose Tube, Gel-Free Cable, Riser, 12 F, 50 µm multimode (OM4) |
| EAN Code | 4056418173689 |



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