

FREEDM® Ribbon Interlocking Armored, Gel-Filled Cable, Riser

96 F, 50 µm multimode (OM4)

CORNING

Corning FREEDM® ribbon interlocking armored, gel-filled riser cables continue the innovative breakthrough in indoor/outdoor cable technology with a new generation of high-fiber-count single tube cables. These cables are designed to maximize the use of critical duct space with excellent installation results. Encased in spirally-wrapped aluminum interlocking armor for ruggedness and superior crush resistance, the cables are ideal for industrial and heavy traffic areas and installations requiring extra protection for optical cables. The UV-resistant, flame-retardant jacket allows this cable to be installed outdoors or in indoor general purpose horizontal and riser applications. The cable employs a single buffer tube containing a stack of 12 fiber ribbons within a gel-filled central buffer tube.

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

Precise fiber and ribbon geometries

Excellent mass splicing yields

Waterblocked cable

Enables use of cables for outdoor applications

12-fiber ribbons with ribbon IDs

Easy identification

UV-resistant, flame-retardant jacket

Rugged, durable and easy to strip

Flexible interlocking armor

Up to seven times the crush protection compared to non-armored cables

Common installations

Outdoor aerial and duct; indoor general purpose horizontal according to NEC Article 770

Standards

Listings

National Electrical Code® (NEC®) OFNR

Design Criteria

CSA OFN FT-4



Part Number: 096TCF-14190-A1

Ripcord

Interlocking
Armor

Buffer
Tube

Fiber Ribbon

Dielectric Strength
Members

Cross Section of Part Number: 096TCF-14190-A1

FR / UV-Resistant
Outer Jacket

CORNING

FREEDM[®] Ribbon Interlocking Armored, Gel-Filled Cable, Riser

96 F, 50 µm multimode (OM4)

CORNING

Standards

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 | Ribbon |
| Product Type | Dielectric |
| Flame Rating | Riser (OFNR) |
| 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 | 96 |
| Ribbons per Tube | 8 |
| Fibers per Ribbon | 12 |
| Fiber Coloring | Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua |
| Buffer Tube Color | Natural |
| Buffer Tube Diameter | 6.7 mm (0.26 in) |
| Tensile Strength Elements and/or Armoring - Layer 1 | Dielectric strength members |
| Tape | Water-swellable |
| Tensile Strength Elements and/or Armoring - Layer 2 | Dielectric strength members |
| Number of Ripcords | 2 |
| Outer Jacket Material | Flame-Retardant, UV-Resistant |
| Outer Jacket Color | Black |

FREEDM[®] Ribbon Interlocking Armored, Gel-Filled Cable, Riser

96 F, 50 μ m multimode (OM4)

CORNING

Mechanical Characteristics Cable

| | |
|-----------------------------------|--------------------------------|
| Max. Tensile Strength, Short-Term | 2700 N (600 lbf) |
| Max. Tensile Strength, Long-Term | 600 N (135 lbf) |
| Weight | 291.7 kg/km (195.4 lb/1000 ft) |
| Nominal Outer Diameter | 19.3 mm (0.76 in) |
| Min. Bend Radius Installation | 289.5 mm (11.4 in) |
| Min. Bend Radius Operation | 193 mm (7.6 in) |

Chemical Characteristics

| | |
|------|---|
| RoHS | Free of hazardous substances according to RoHS 2002/95/EG |
|------|---|

Fiber Specifications

Optical Characteristics (cabled)

| | |
|---|--------------------------|
| Fiber Core Diameter | 50 μ m |
| 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 / - |
| 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™/Pretium EDGE® systems solutions.

- Notes:
- 1) 50 μ 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.

FREEDM[®] Ribbon Interlocking Armored, Gel-Filled Cable, Riser

96 F, 50 μm multimode (OM4)



Ordering Information

| | |
|---------------------|---|
| Part Number | 096TCF-14190-A1 |
| Product Description | FREEDM [®] Ribbon Interlocking Armored, Gel-Filled Cable, Riser, 96 F, 50 μm multimode (OM4) |



Corning Optical Communications LLC • PO Box 489 • Hickory, NC 28603-0489 USA

800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/opcomm

A complete listing of the trademarks of Corning Optical Communications is available at www.corning.com/opcomm/trademarks.

All other trademarks are the properties of their respective owners. Corning Optical Communications is ISO 9001 certified.

© 2015 Corning Optical Communications. All rights reserved.

