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



Corning ribbon interlocking armored riser cables are designed for use in riser and general-purpose environments in intrabuilding backbone and horizontal installations. These cables are standard ribbon riser cables placed inside spirally wrapped aluminum interlocking armor for ruggedness and superior crush resistance. This special construction facilitates routing inside buildings, through riser shafts, to telecommunication rooms and to workstations. Ideal for heavy traffic or more challenging mechanical exposure conditions, this cable design consists of fibers organized into 12-fiber ribbons inside a central tube surrounded by dielectric strength members to provide tensile strength. The flexible interlocking armor up to seven times the crush protection of nonarmored cables, while a specially formulated flame-retardant outer jacket allows the design to meet the requirements of the NFPA 262 flame test. The 12-fiber ribbons have readily identifiable ribbon ID numbers and fiber colors with easy access to individual fibers.



Features and Benefits

Ribbon ID numbers and fiber colors Easily identifiable

Precise fiber and ribbon geometries

Excellent mass splicing yields

Flame-retardant jacket Rugged and durable

Flexible interlocking armor

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

Common installations

Indoor vertical riser and general purpose horizontal according to National Electrical Code® (NEC®) Article 770

Ripcord Buffer Tube Dielectric Strength Members Fiber Ribbon Flame-Retardant Inner Jacket Water-Swellable Tape Interlocking Armor Flame-Retardant Outer Jacket

Standards

Listings	National Electrical Code® (NEC®) OFNR
Design Criteria	CSA FT-6
Test Criteria	ANSI/ICEA S-83-596



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Specifications

General Specifications	
Environment	Indoor
Application	General Purpose Horizontal, Vertical Riser
Cable Type	Ribbon
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	-20 °C to 70 °C (-4 °F to 158 °F)

Cable Design	
Fiber Count	12
Ribbons per Tube	1
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	8.1 mm (0.32 in)
Tape, Layer 1	Water-swellable
Tensile Strength Elements and/or Armoring - Layer 1	Dielectric strength members
Number of Ripcords	2
Inner Jacket Material	Flame-retardant
Tensile Strength Elements and/or Armoring - Layer 3	Interlocking armor
Outer Jacket Material	Flame-retardant
Outer Jacket Color	Aqua

Mechanical Characteristics Cable	
Max. Tensile Strength, Short-Term	1320 N (300 lbf)
Max. Tensile Strength, Long-Term	400 N (90 lbf)
Nominal Inner Cable Diameter	9.20 mm (0.36 in)
Nominal Outer Diameter	15.7 mm (0.62 in)
Min. Bend Radius Installation	236 mm (9.29 in)



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Mechanical Characteristics Cable	
Min. Bend Radius Operation	157 mm (6.18 in)
Weight	212 kg/km (142 lb/1000 ft)

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

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 / -

^{*} Assumes 0.7 dB maximum total connector/splice loss.

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.

Ordering Information

Part Number	012TC7-14191-A1
Product Description	Ribbon Interlocking Armored Cable, Riser, 12 F, 50 μ m multimode, extended 10G distance (OM4)

Shipping Information

Units per Delivery	1/1



^{*} Meets 0.75 ns optical skew when used in all Corning Plug and Play™/Pretium EDGE® systems solutions.

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Notes



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