FREEDM® One Tight-Buffered, Interlocking Armored Cable, Riser

12 F, 50 µm multimode (OM4)

CORNING

Corning FREEDM® One interlocking armored cables are flame-retardant, indoor/outdoor cables designed for interbuilding and intrabuilding backbone installations that eliminate the need for a transition splice when entering the building. 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. These cables are protected against water penetration by innovative waterblocking technology, making them ideal for OSP applications. The flexible, interlocking armored design offers up to seven times the crush protection compared to unarmored cables (as characterized to ICEA-696) and allows easy one-step installation, thereby reducing 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.

Part Number: 012T8F-31190-A1

Cross Section of Part Number: 012T8F-31190-A1

Labels: FR / UV-Resistant Outer Jacket; Ripcord; Dielectric Strength Yarns; Dielectric Strength Yarns; Dielectric Strength Yarns; Tight-Buffered Fiber; FR / UV-Resistant Inner Jacket; Interlocking Armor

Features and Benefits

Waterblocking technology
OSP (outdoor) applications

Flexible, interlocking armor design
Seven times crush protection compared to unarmored cables

UV-resistant, flame-retardant jacket
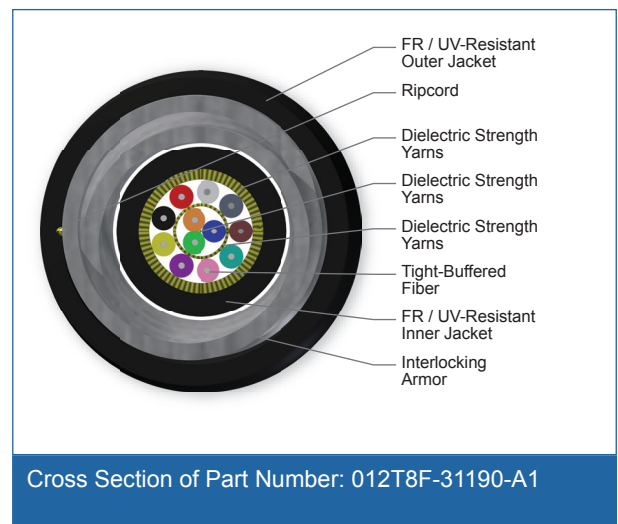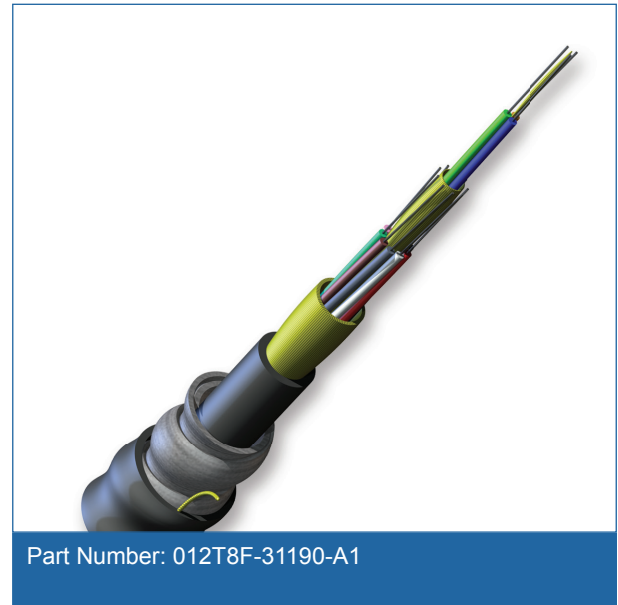Rugged, durable and easy to strip

Standards

Approvals and Listings	National Electrical Code® (NEC®) OFCR, CSA FT-4, ICEA S104-696
Flame Resistance	UL-1666 (for riser and general building applications)

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Specifications

General Specifications	
Environment	Indoor/Outdoor Cables
Application	Aerial, Direct Buried, Duct, General Purpose Horizontal, (Vertical Riser)
Cable Type	Tight-Buffered
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	12
Tight Buffer Color	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Tensile Strength Elements and/or Armoring - Layer 1	Water-swellable strength members
Inner Jacket Material	Flame-Retardant, UV-Resistant
Tensile Strength Elements and/or Armoring - Layer 2	Interlocking armor
Number of Ripcords	2
Outer Jacket Material	Flame-Retardant, UV-Resistant
Outer Jacket Color	Black

Mechanical Characteristics Cable	
Nominal Inner Cable Diameter	6.5 mm (0.26 in)
Nominal Outer Diameter	11.8 mm (0.46 in)
Weight	114.3 kg/km (76.8 lb/1000 ft)
Min. Bend Radius Installation	177.0 mm (7.0 in)
Min. Bend Radius Operation	118 mm (4.6 in)
Max. Tensile Strength, Short-Term	675 N (150 lbf)
Max. Tensile Strength, Long-Term	200 N (45 lbf)

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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	2.8 dB/km / 1.0 dB/km
Serial 1 Gigabit Ethernet	1000 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 / -

Ordering Information

Part Number	012T8F-31190-A1
Product Description	FREEDM® One Tight-Buffered, Interlocking Armored Cable, Riser, 12 F, 50 µm multimode (OM4)
EAN Code	4056418177106

RoHS COMPLIANT

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