

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

12 F, Single-mode (OS2)

CORNING

Corning Cable Systems FREEDM® One Interlocking Armored Cables are flame-retardant, indoor/outdoor, cables designed for interbuilding and intrabuilding back-bone 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 water-blocking technology, making it ideal for OSP applications. 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.

This cable is available in 12 different jacket colors - blue, orange, green, brown, slate, white, red, black, yellow, purple, 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 standard part numbers shown here. Contact Customer Care at 1-800-743-2675 to order other color options.

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

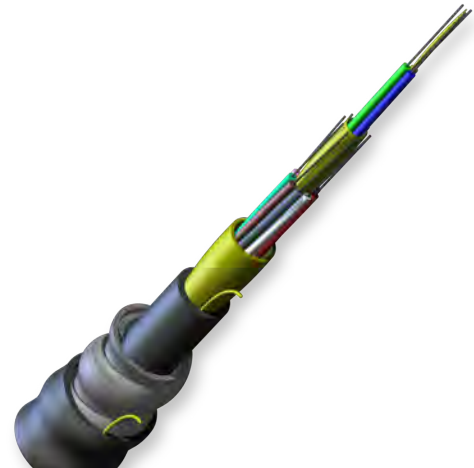
Standards

Approval and Listings

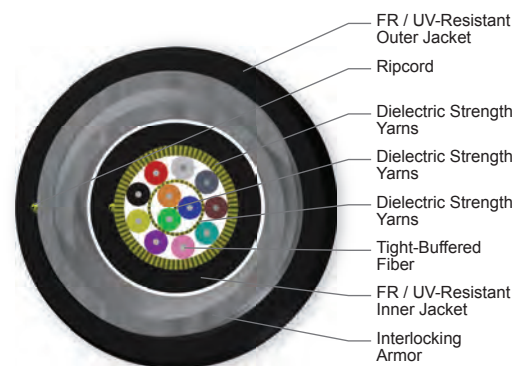
National Electrical Code®
(NEC®) OFCR, CSA FT-4,
ICEA S104-696

Flame Resistance

UL-1666 (for riser and general building applications)



Part Number: 012E8F-31131-A1



Cross Section of Part Number: 012E8F-31131-A1

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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	Single-mode (OS2)

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	12.5 mm (.49 in)
Weight	131 kg/km (88 lb/1000 ft)
Min. Bend Radius Installation	98 mm (3.8 in)
Min. Bend Radius Operation	65 mm (2.6 in)

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Mechanical Characteristics Cable

Max. Tensile Strengths, Short-Term	675 N (150 lbf)
Max. Tensile Strengths, Long-Term	200 N (45 lbf)

Chemical Characteristics

RoHS	Free of hazardous substances according to RoHS 2002/95/EG
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Fiber Specifications

Optical Characteristics (cabled)

Fiber Type	Single-mode
Fiber Core Diameter	8.2 µm
Fiber Category	OS2
Fiber Code	E
Performance Option Code	31
Wavelengths	1310 nm / 1383 nm / 1550 nm
Maximum Attenuation	0.65 dB/km / 0.65 dB/km / 0.5 dB/km
Serial 1 Gigabit Ethernet	5000 m / - / -
Serial 10 Gigabit Ethernet	10000 m / - / 40000 m

* ITU-T G.652 D compliant.

Notes: 1) Improved attenuation and bandwidth options available.
2) Bend-insensitive single-mode fibers available on request.
3) *Contact a Corning Cable Systems Customer Care Representative for additional information.*

Ordering Information

Part Number	012E8F-31131-A1
Product Description	FREEDM® One Tight-Buffered, Interlocking Armored Cable, Riser, 12 F, Single-mode (OS2)

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The Corning logo consists of a solid blue square with the word "CORNING" in white, uppercase, sans-serif font centered within it.

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Notes



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