

FREEDM® One Interlocking Armored Plenum Cables

A LANscape® Pretium™ Solutions Product

Applications

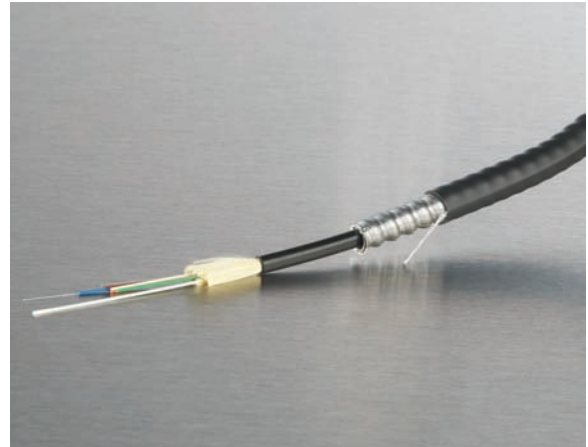
- FREEDM® One Interlocking Armored Plenum Cables are UV-resistant and fully water-blocked for indoor/outdoor applications
- Intrabuilding backbone and installations in riser and general-purpose environments
- Industrial and heavy traffic areas requiring extra protection for optical cables

Description

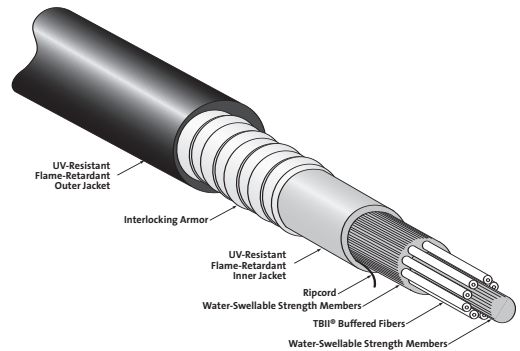
Corning Cable Systems FREEDM One Interlocking Armored Plenum Cables are standard all dielectric FREEDM One Plenum Cables inside a spirally wrapped, aluminum interlocking armor for ruggedness and superior crush resistance. These cables meet the application requirements of the National Electrical Code® (NEC® Article 770) and are OFCP and FT-6 listed.

Features / Benefits

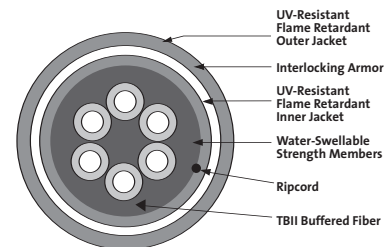
- Flexible interlocking armor offers over 7x the crush protection compared to unarmored cables as characterized to ICEA-696
- Eliminates cable transition at the building entrance, reducing installation time and cost
- Tight buffered design eliminates need for fan-out kits
- Available in 50 µm, 62.5 µm, single-mode and hybrid versions
- Armored design allows easy one-step installation of protected cable, thereby reducing overall installation cost
- UV-resistant, innovative water-blocking technology for OSP applications
- Specially formulated flame-retardant outer jacket is rugged and durable
- Available with Gigabit Ethernet performance and 10 Gigabit Ethernet performance
- ICEA S-104-696 test criteria



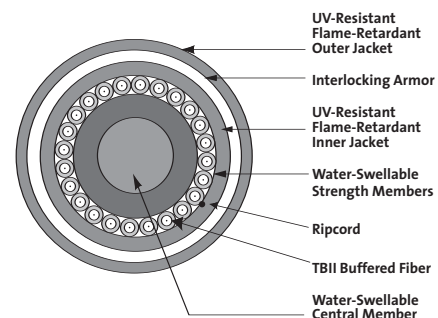
FREEDM One Interlocking Armored Plenum Cable | Photo LAN693



FREEDM One Interlocking Armored Plenum Cable, 12-Fiber | Drawing ZA-2822



FREEDM One Armored OFCP Cable, 6-Fiber | Drawing ZA-2820



FREEDM One Armored OFCP Cable, 24-Fiber | Drawing ZA-2821



Product Specifications

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Specifications

Temperatures	Storage: -40° to +70°C (-40° to +158°F) Installation: -10° to +60°C (+14° to +140°F) Operation: -40° to +70°C (-40° to +158°F)
Approvals and Listings	National Electrical Code® (NEC®) OFCP, CSA FT-4, ICEA S-104-696
Flame Resistance	NFPA 262 (for plenum, riser and general building applications)

Corning Cable Systems recommends storing indoor/outdoor cable in a proper temperature environment prior to installation to allow the cable temperature to meet installation temperature range specifications for best installation results.

Fiber Count	Inner Cable O.D. mm (in)	Armored Cable O.D. mm (in)	Total Weight kg/km (lb/1000 ft)	Maximum Tensile Loads		Minimum Bend Radius	
				Short-Term N (lbf)	Long-Term N (lbf)	Loaded cm (in)	Installed cm (in)
6	6.2 (0.24)	12.6 (0.49)	149 (100)	1335 (300)	400 (90)	18.9 (7.4)	12.6 (4.9)
12	7.3 (0.29)	14.0 (0.55)	184 (124)	1335 (300)	400 (90)	21.0 (8.3)	14.0 (5.5)
18	9.6 (0.38)	16.9 (0.66)	255 (171)	2670 (600)	801 (180)	25.3 (10.0)	16.9 (6.6)
24	10.9 (0.43)	18.7 (0.74)	309 (207)	2670 (600)	801 (180)	28.1 (11.1)	18.7 (7.4)

Transmission Performance

Fiber Code	C	S	S	K	E
Performance Option Code	31	80	90	30	31
Fiber Type	50/125 μm (850/1300 nm)	50/125 μm (850/1300 nm)	50/125 μm (850/1300 nm)	62.5/125 μm (850/1300 nm)	Single-mode (1310/1550 nm)
Maximum Attenuation (dB/km)	3.5/1.5	3.0/1.5	3.0/1.5	3.5/1.0	0.65/0.50
Minimum LED Bandwidth (MHz•km)	500/500	1500/500	1500/500	200/500	- / -
Minimum Effective Modal Bandwidth (MHz•km)	*510/ -	**2000/ -	***4700/ -	*220/ -	- / -
Serial Gigabit Ethernet Distance (m)	600/600	1000/600	1000/600	300/550	5000/ -
Serial 10 Gigabit Ethernet Distance (m)	82/ -	300/ -	***550/ -	33/ -	10000/40000

* As predicted by RML BW, per TIA/EIA 455-204 and IEC 60793-1-41, for intermediate-performance, laser-based systems (up to 1 Gb/s).

** As predicted by minEMBC, per TIA/EIA 455-220 and IEC 60793-1-49, for high-performance, laser-based systems (up to 10 Gb/s).

*** As predicted by minEMBC, per TIA/EIA 455-220 and IEC 60793-1-49, for high-performance, laser-based systems (up to 10 Gb/s).

**** The 550 m distance is equivalent to a 4700 EMB system with standards-compliant transceiver and fiber characteristics, 3.0 dB/km cable attenuation and 1.0 dB total connector loss.

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Ordering Information

Contact Customer Service for other options.

□ □ □ □ 8 P - 3 1 1 □ □ - A 3
1 2 3 4 5 6 7 8 9 10 11 12 13 14

1 - 3 Select fiber count (006, 012, 018, 024).

4 Select fiber code (see Transmission Performance Table).

5 / 12 Defines cable type.

8/- = FREEDM® One Cable

6 Defines outer jacket.

P = Indoor/outdoor plenum

7 Defines fiber placement.

3 = Standard for FREEDM One Plenum Cables

8 Defines length markings.

1 = Markings in feet (standard) for single-layer design

9 Defines tensile strength

(see Specifications).

10 - 11 Select performance option code

(see Transmission Performance Table).

13 - 14 Defines special manufacturing code.

A3 = Aluminum interlocking armor with plenum-rated jacket

FREEDM[®] One Interlocking Armored Plenum Cables

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CORNING

LANscape[®]
Pretium[™] Solutions

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