

FREEDM® One Interlocking Armored Plenum Cables

CORNING

Features and Benefits

Waterblocking technology
OSP 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

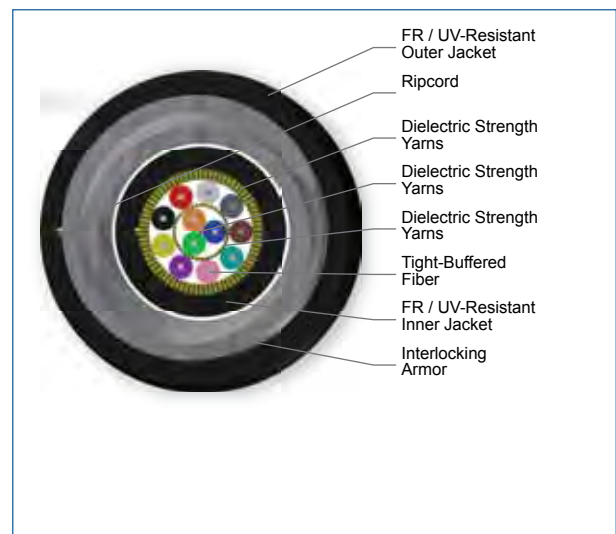
Approval and Listings	National Electrical Code® (NEC®) OFCP, CSA FT-6, ICEA S-83-596
Flame Resistance	NFPA 262 (for plenum, riser and general building applications)

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.



FREEDM® One Interlocking Armored Plenum Cables, 12-Fibers



FREEDM® One Interlocking Armored Plenum Cables, 12-Fibers

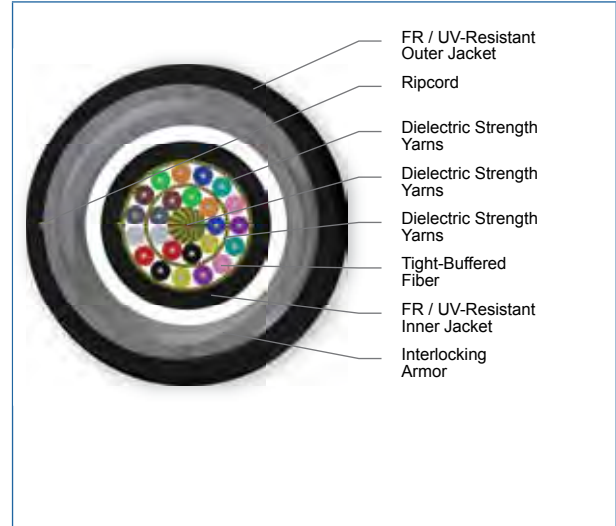
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FREEDM® One Interlocking Armored Plenum Cables, 24-Fibers



FREEDM® One Interlocking Armored Plenum Cables, 24-Fibers

Specifications

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)

* 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.

Mechanical Characteristics Cable					
Fiber Count	Product Type	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Weight
2	Interlocking armor	11.5 mm (.45 in)	75 mm (3.0 in)	50 mm (2.0 in)	114 kg/km (77 lb/1000 ft)
4	Interlocking armor	11.5 mm (.45 in)	80 mm (3.1 in)	53 mm (2.1 in)	117 kg/km (79 lb/1000 ft)
6	Interlocking armor	11.5 mm (.45 in)	80 mm (3.1 in)	53 mm (2.1 in)	119 kg/km (80 lb/1000 ft)
12	Interlocking armor	12.5 mm (.49 in)	95 mm (3.7 in)	63 mm (2.5 in)	140 kg/km (94 lb/1000 ft)

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Fiber Count	Product Type	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Weight
18	Interlocking armor	13.3 mm (.52 in)	111 mm (4.4 in)	74 mm (2.9 in)	165 kg/km (111 lb/1000 ft)
24	Interlocking armor	14.6 mm (.57 in)	120 mm (4.7 in)	80 mm (3.1 in)	188 kg/km (126 lb/1000 ft)

Chemical Characteristics

RoHS

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

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Transmission Performance

Fiber Type	Multimode	Multimode	Multimode	Multimode	Multimode	Single-mode	Bend-Improved Single-mode (OS2)
Fiber Core Diameter (µm)	62.5	50	50	50	50	8.2	9
Fiber Category	OM1	OM2	OM3	OM4	OM4 Extended Distance	OS2	OS2
Fiber Code	K	T	T	T	T	E	H
Performance Option Code	30	31	80	90	91	31	31
Wavelengths (nm)	850 / 1300	850 / 1300	850 / 1300	850 / 1300	850 / 1300	1310 / 1383 / 1550	1310 / 1383 / 1550
Maximum Attenuation (dB/km)	3.4 / 1.0	2.8 / 1	2.8 / 1	2.8 / 1	2.8 / 1	0.65 / 0.65 / 0.5	0.65 / 0.65 / 0.5
Serial 1 Gigabit Ethernet (m)	300 / 550	750 / 600	1000 / 600	1100 / 600	1100 / 600	5000 / - / -	5000 / - / -
Serial 10 Gigabit Ethernet (m)	33 / -	150 / -	300 / -	550 / -	600 / -	10000 / - / 40000	10000 / - / 40000
Min. Overfilled Launch (OFL) Bandwidth (MHz*km)	200 / 500	700 / 500	1500 / 500	3500 / 500	3500 / 500		
Minimum Effective Modal Bandwidth (EMB) (MHz*km)	220 / -	950 / -	2000 / -	4700 / -	5350 / -		
Induced Attenuation @ 7.5 mm Radius (dB)			< 30 up to 80				

* Assumes 1.0 dB maximum total connector/splice loss.

* Assumes 0.7 dB maximum total connector/splice loss.

* Meets 0.75 ns optical skew when used in all Corning Cable Systems Plug & Play™/Pretium EDGE® Systems Solutions.

* ITU-T G.652 D compliant.

* ITU-T G.652 D and ITU-T G.657 A1 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.

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Ordering Information | Contact Customer Care at 1-800-743-2671 for other options.

				8	P	-	3	1	1			-	A	3
1	2	3	4	5	6	7	8	9	10					

1 Select fiber count.

Standard offerings:

002 006 018
004 012 024

2 Select fiber code.

K = 62.5 µm multimode, OM1
T = 50 µm multimode, OM2, OM3, OM4, OM4+
E = Single-mode, OS2 SMF-28e®

3 Defines cable type.

8 = FREEDM® One Cable

4 Defines outer jacket.

P = Indoor/outdoor plenum

5 Defines fiber placement.

3 = Standard for FREEDM One Plenum Cable

6 Defines length markings.

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

7 Defines tensile strength.

1 = See Specifications.

8 Select performance option code.

30 = 62.5 µm multimode, OM1
31 = 50 µm multimode, OM2
80 = 50 µm multimode, OM3
90 = 50 µm multimode, OM4
91 = 50 µm multimode, OM4+
31 = Single-mode, OS2 (Max. attenuation .65 / .65 dB/km)

9 Defines cable type.

- = FREEDM® One Cable

10 Defines special requirements.

A3 = Aluminum interlocking armor with plenum-rated jacket

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