

FREEDM® One Plenum Cables

CORNING

Features and Benefits

Waterblocking technology

OSP applications

Small diameter and bend-radius

Easy installation in space-constrained areas

Color-coded fibers

Quick and easy identification

All-dielectric cable construction

Requires no grounding or bonding

UV-resistant, flame-retardant jacket

Rugged, durable and easy to strip

Standards

Approval and Listings National Electrical Code®
(NEC®) OFNR, CSA FT-4

Design and Test Criteria ICEA S-104-696

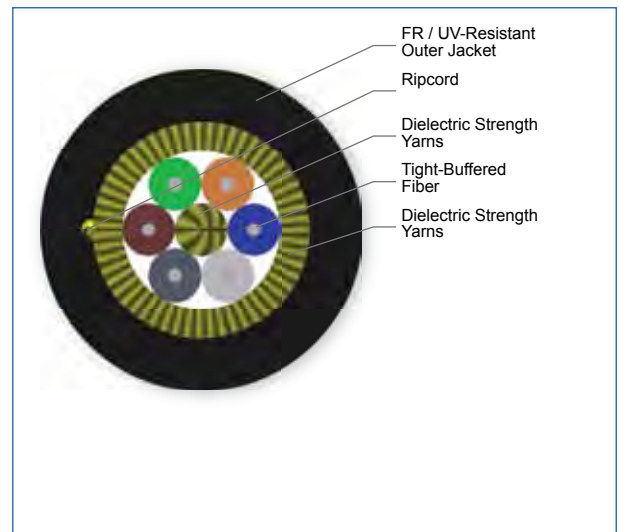
Flame Resistance

Corning Cable Systems FREEDM® One Cables are flame-retardant, UV-resistant, indoor/outdoor cables designed for aerial, duct and direct-buried applications with no need for a transition splice when entering the building. The tight-buffered construction facilitates easier termination for low-fiber-count applications in the local area network (LAN) and eliminates need for fan-out kits. The design features TIA-598 color-coded 900 µm TBII® Buffered Fibers for easy identification, consistent stripping and direct termination. The small diameter and bend radius of the cable allow for easy installation in space-constrained areas while the innovative waterblocking technology is ideal for OSP applications. The all-dielectric cable construction requires no grounding or bonding and 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 Plenum Cables, 6-Fibers

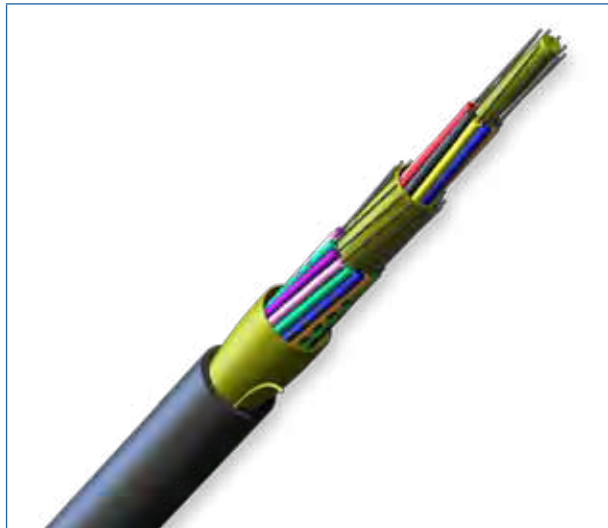


FREEDM® One Plenum Cables, 6-Fibers

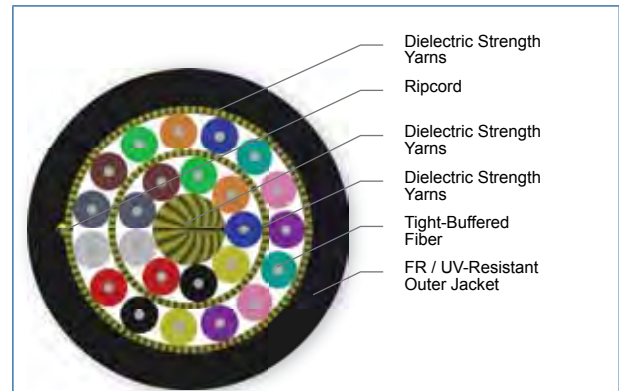
CORNING

FREEDM® One Plenum Cables

CORNING



FREEDM® One Plenum Cables, 24-Fibers



FREEDM® One Plenum Cables, 24-Fibers

Specifications

Temperature Range	
Storage	-40 °C to 70 °C (-40 °F to 158 °F)
Installation	0 °C to 60 °C (32 °F to 140 °F)
Operation	-40 °C to 70 °C (-40 °F to 158 °F)

* Corning Cable Systems recommends storing 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	Dielectric	5.0 mm (.20 in)	75 mm (3.0 in)	25 mm (1.0 in)	22 kg/km (15 lb/1000 ft)
4	Dielectric	5.3 mm (.21 in)	80 mm (3.1 in)	27 mm (1.0 in)	25 kg/km (17 lb/1000 ft)
6	Dielectric	5.3 mm (.21 in)	80 mm (3.1 in)	27 mm (1.0 in)	27 kg/km (18 lb/1000 ft)
12	Dielectric	6.3 mm (.25 in)	95 mm (3.7 in)	32 mm (1.2 in)	37 kg/km (25 lb/1000 ft)

CORNING

FREEDM® One Plenum Cables

CORNING

Fiber Count	Product Type	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Weight
18	Dielectric	7.4 mm (.29 in)	111 mm (4.4 in)	37 mm (1.5 in)	56 kg/km (38 lb/1000 ft)
24	Dielectric	8.0 mm (.31 in)	120 mm (4.7 in)	40 mm (1.6 in)	65 kg/km (44 lb/1000 ft)

Chemical Characteristics

RoHS

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

CORNING

FREEDM® One Plenum Cables

CORNING

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.

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.

4) 50 µm multimode fiber macrobend loss ≤ 0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel.

CORNING

FREEDM® One Plenum Cables

CORNING

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

				8	P	-	3	1	1			-	2	9
				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 Select 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.

29 = No special requirements

This cable is available in 12 different jacket colors: blue, orange, green, brown, slate, white, red, black, yellow, violet, rose and aqua. Black is the standard jacket color using the part number configurator above. Contact Customer Care at 1-800-743-2675 to order other color options.



Corning Cable Systems LLC • PO Box 489 • Hickory, NC 28603-0489 USA

800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/cablesystems

A complete listing of the trademarks of Corning Cable Systems is available at www.corning.com/cablesystems/trademarks.

Corning Cable Systems is ISO 9001 certified. © 2012 Corning Cable Systems. All rights reserved.

CORNING