

FREEDM® Loose Tube Gel-Free Plenum Cables

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Features and Benefits

Gel-free waterblocking technology

Craft-friendly cable preparation

Loose tube design

Mechanical ruggedness and environmental durability

Color-coded fibers

Quick and easy identification

All-dielectric construction

Requires no grounding or bonding

Meets NEC® requirements

Meets burn test criteria

Standards

Approval and Listings

National Electrical Code® (NEC®) OFNP, CSA FT-6

Design and Test Criteria

ANSI/ICEA S-104-696; NFPA 262 (for plenum, riser and general building applications)

Corning Cable Systems FREEDM® Loose Tube Gel-Free Plenum Cables are flame-retardant, indoor/outdoor, plenum-rated cables suitable for installation in interbuilding and intrabuilding backbones in aerial, duct and riser or plenum applications. The loose tube design offers mechanical ruggedness and environmental durability while the all-dielectric cable construction requires no grounding or bonding. The water-swellable yarn eliminates the need for gel-filling compound and allows more efficient and craft-friendly cable preparation.

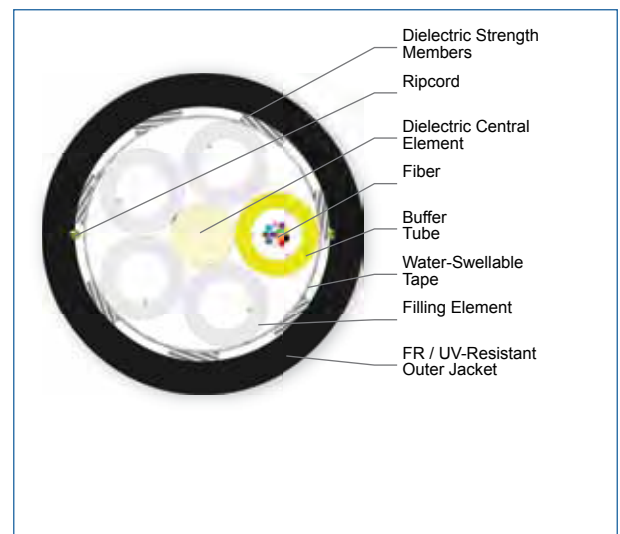
FREEDM Loose Tube Cables are available in 12 different jacket colors, enabling easy visual identification and segregation of cables while still providing all the required environmental protection of an indoor/outdoor cable jacket.

The cables are available in 62.5 µm, 50 µm (including laser-optimized 50 µm) and single-mode versions and the 250 µm color-coded fibers allow quick and easy identification during installation. The flexible, flame-retardant outer jacket is UV-resistant and enables direct exposure to sunlight. Interlocking armor is available for special applications requiring additional mechanical durability.

The plenum rating of this cable eliminates the need to transition splice when entering the building and minimizes routing restrictions once inside the building. Meeting the requirements of the National Electric Code® (NEC®) Article 770, the cables are also OFNP and FT-6 listed.



FREEDM® Loose Tube, Gel-Free Cables, Plenum, 12-Fibers

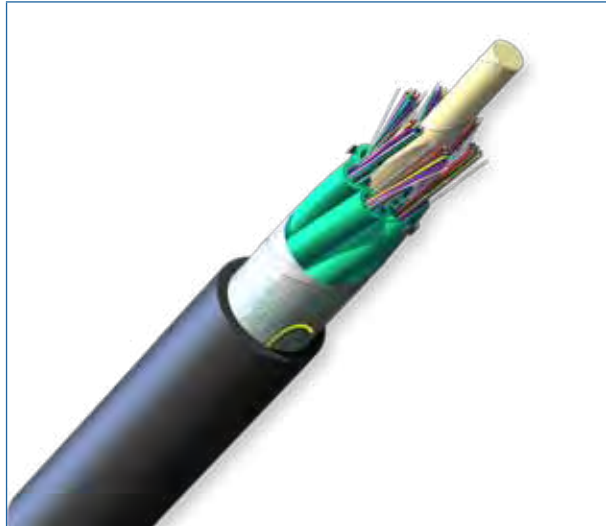


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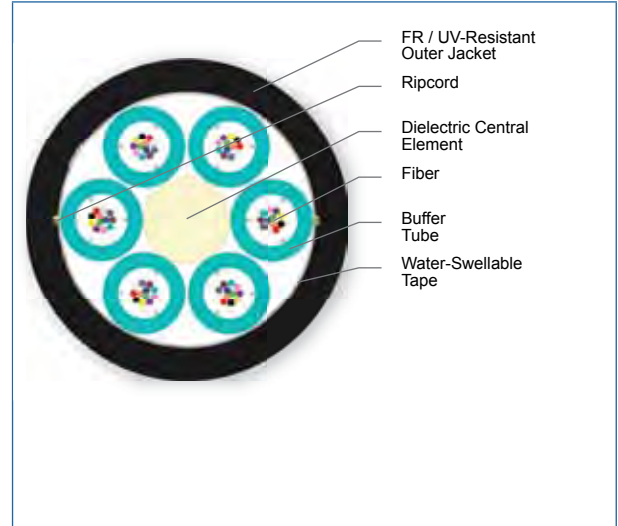
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FREEDM[®] Loose Tube Gel-Free Plenum Cables

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FREEDM[®] Loose Tube, Gel-Free Cables, Plenum, 72-Fibers



FREEDM[®] Loose Tube, Gel-Free Cables, Plenum, 72-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 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	Nominal Outer Diameter	Product Type	Max. Tensile Strengths, Short-Term	Min. Bend Radius Installation	Max. Tensile Strengths, Long-Term	Min. Bend Radius Operation	Weight
6 - 12	3.7 mm (1.5 in)	Dielectric	1350 N (300 lbf)	111 mm (4.4 in)	400 N (90 lbf)	74 mm (2.9 in)	61 kg/km (41 lb/1000 ft)
24 - 60	11.1 mm (0.44 in)	Dielectric	2700 N (600 lbf)	167 mm (6.6 in)	810 N (180 lbf)	111 mm (4.4 in)	127 kg/km (85 lb/1000 ft)
72	11.8 mm (0.46 in)	Dielectric	2700 N (600 lbf)	177 mm (7 in)	810 N (180 lbf)	118 mm (4.6 in)	143 kg/km (96 lb/1000 ft)

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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
Fiber Core Diameter (μm)	50	50	50	50	62.5	8.2
Fiber Category	OM4 Extended Distance	OM4	OM3	OM2	OM1	OS2
Fiber Code	T	T	T	T	K	E
Performance Option Code	91	90	80	31	30	01
Wavelengths (nm)	850 / 1300	850 / 1300	850 / 1300	850 / 1300	850 / 1300	1310 / 1383 / 1550
Maximum Attenuation (dB/km)	3.0 / 1.0	3.0 / 1.0	3.0 / 1.0	3.0 / 1.0	3.4 / 1.0	0.4 / 0.4 / 0.3
Min. Overfilled Launch (OFL) Bandwidth (MHz*km)	3500 / 500	3500 / 500	1500 / 500	700 / 500	200 / 500	
Minimum Effective Modal Bandwidth (EMB) (MHz*km)	5350 / -	4700 / -	2000 / -	950 / -	220 / -	
Serial 1 Gigabit Ethernet (m)	1100 / 600	1100 / 600	1000 / 600	750 / 600	300 / 550	5000 / - / -
Serial 10 Gigabit Ethernet (m)	600 / -	550 / -	300 / -	150 / -	33 / -	10000 / - / 40000

* 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.

* Single-mode (OS2) fiber is 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.

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

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	P - T	4	1	<input type="text"/>	<input type="text"/>	D	2	0
1	2	3	4	5	6	7	8	9	10			

1 Select fiber count.

Standard offerings:

006 024 048 072
012 036 060

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 Select cable type.

S = Fiber count ≤ 12
W = Fiber counts 24-72

4 Defines outer jacket.

P = Plenum

5 Defines fiber placement.

T = 12 fibers/buffer tube (standard)

6 Defines length markings.

4 = Markings in feet (standard)

7 Defines tensile strength.

1 = Standard

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+
01 = Single-mode, OS2
(Max. attenuation 0.4/0.4/0.3 dB/km)

9 Defines cable type.

D = Fiber count 6-72

10 Defines special requirements.

20 = 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.



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