

FREEDM[®] Loose Tube Gel-Free Plenum Cables

CORNING

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

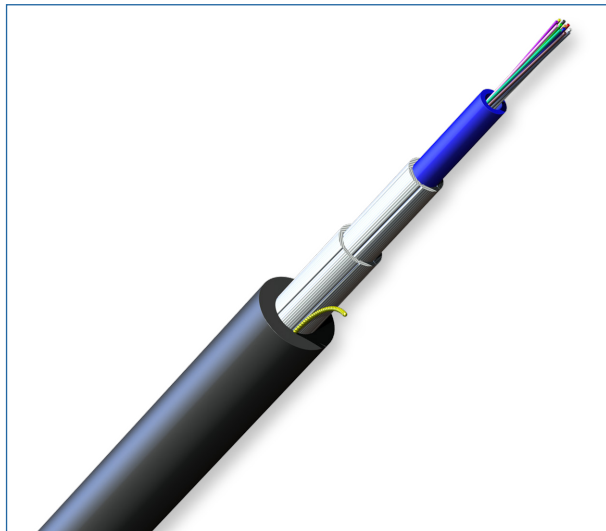
Approval and Listings	National Electrical Code [®] (NEC [®]) OFNP, CSA FT-6
Design and Test Criteria	ANSI/ICEA S-104-696; NFPA 262 (for plenum, riser and general building applications)

Corning 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-swellaible yarn eliminates the need for gel-filling compound and allows more efficient and craft-friendly cable preparation.

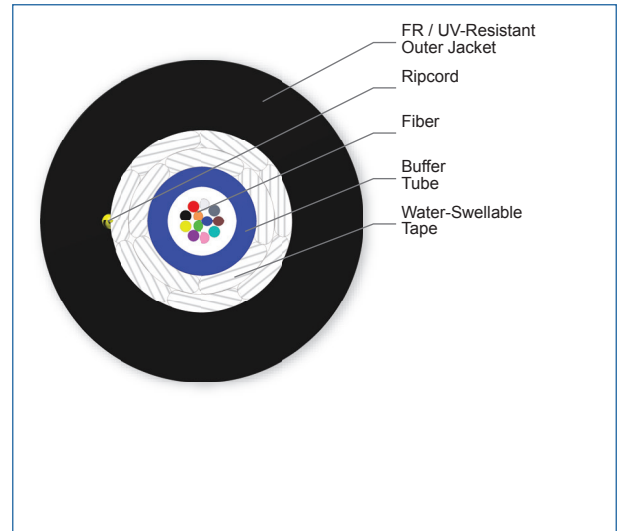
FREEDM loose tube cables are available in 12 different jacket colors, enabling easy visual identification and segregation of cables while still providing all the required environmental protection of an indoor/outdoor cable jacket.

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.



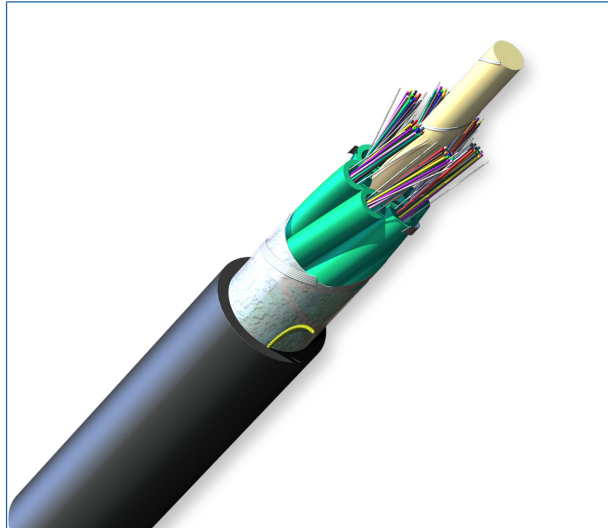
FREEDM Loose Tube, Gel-Free Cables, Plenum, 12 Fibers | Photo PIM0771



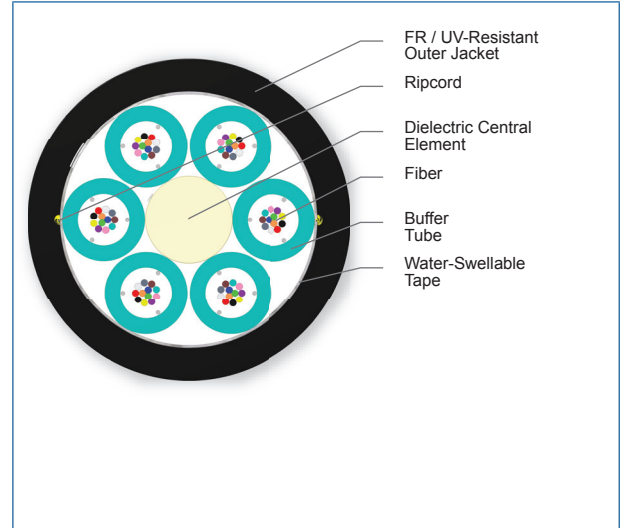
FREEDM Loose Tube, Gel-Free Cables, Plenum, 12 Fibers | Photo PIM1671

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FREEDM Loose Tube, Gel-Free Cables, Plenum, 72 Fibers | Photo PIM0788



FREEDM Loose Tube, Gel-Free Cables, Plenum, 72 Fibers | Photo PIM1688

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)

* Note: Corning 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 Strength, Short-Term	Max. Tensile Strength, Long-Term	Min. Bend Radius Installation	Min. Bend Radius Operation	Weight
24 - 60	11.1 mm (0.44 in)	Dielectric	2700 N (600 lbf)	810 N (180 lbf)	167 mm (6.6 in)	111 mm (4.4 in)	127 kg/km (85 lb/1000 ft)
72	11.8 mm (0.46 in)	Dielectric	2700 N (600 lbf)	810 N (180 lbf)	177 mm (7 in)	118 mm (4.6 in)	143 kg/km (96 lb/1000 ft)

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

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Transmission Performance

Multimode					
Fiber Core Diameter (µm)	62.5	50	50	50	50
Fiber Category	OM1	OM2	OM3	OM4	OM4 Extended Distance
Fiber Code	K	T	T	T	T
Performance Option Code	30	31	80	90	91
Wavelengths (nm)	850/1300	850/1300	850/1300	850/1300	850/1300
Maximum Attenuation (dB/km)	3.4/1.0	3.0/1.0	3.0/1.0	3.0/1.0	3.0/1.0
Serial 1 Gigabit Ethernet (m)	300/550	750/500	1000/600	1100/600	1100/600
Serial 10 Gigabit Ethernet (m)	33/-	150/-	300/-	550/-	600/-
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/-

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

4) Contact a Corning Customer Care Representative for additional information.

Single-mode	
Fiber Name	SMF-28e+ [®] fiber
Fiber Category	G.652.D
Fiber Code	E
Performance Option Code	01
Wavelengths (nm)	1310/1383/1550
Maximum Attenuation (dB/km)	0.4/0.4/0.3
Typical Attenuation* (dB/km)	0.33/0.33/0.19



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Ordering Information | Note: Contact Customer Care at 1-800-743-2675 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+®
H = ClearCurve® XB Single-mode (OS2)

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 ft (standard)

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+)
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

Note: 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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