

# FREEDM<sup>®</sup> Loose Tube Gel-Free Plenum Cables

A LANscape<sup>®</sup>  
Solutions Product

## features and benefits |

<b>Gel-free waterblocking technology</b>	Craft-friendly cable preparation
<b>Loose tube design</b>	Mechanical ruggedness and environmental durability
<b>Color-coded fibers</b>	Quick and easy identification
<b>All-dielectric cable construction</b>	Requires no grounding or bonding
<b>Meets NEC<sup>®</sup> requirements</b>	Meets burn test criteria

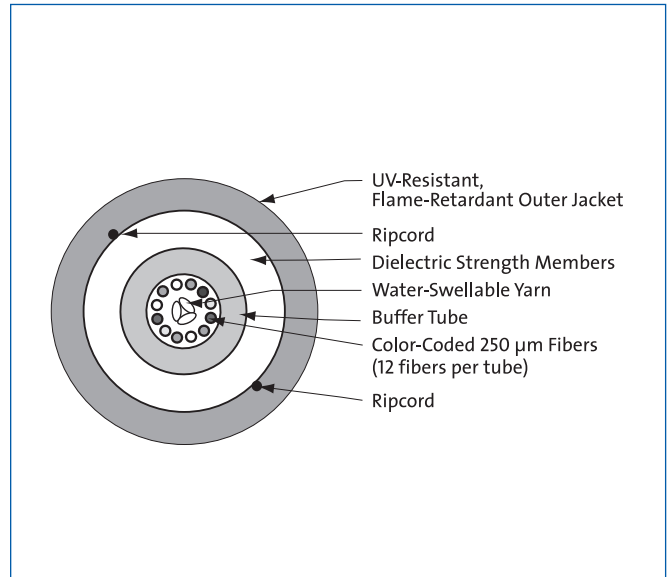
Corning Cable Systems FREEDM<sup>®</sup> Loose Tube Gel-Free Plenum Cables are flame-retardant, indoor/outdoor, plenum-rated cables suitable for installation in interbuilding and intrabuilding backbones in aerial, duct and riser or plenum applications. The loose tube design offers mechanical ruggedness 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.

The cables are available in 62.5  $\mu\text{m}$ , 50  $\mu\text{m}$  (including laser-optimized 50  $\mu\text{m}$ ) and single-mode versions and the 250  $\mu\text{m}$  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.

(continued)



**FREEDM Loose Tube Gel-Free Plenum Cable, 24-Fiber** | Photo LAN734

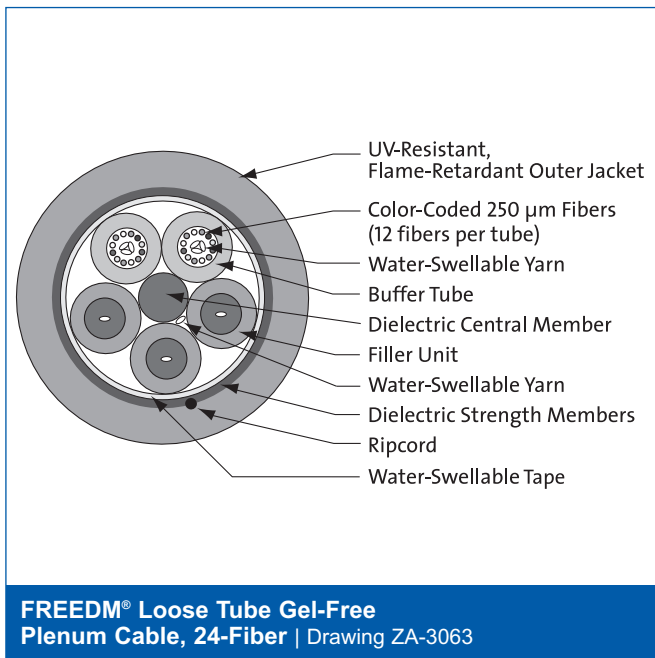


**FREEDM Loose Tube Gel-Free Plenum Cable, 12-Fiber** | Drawing ZA-3062



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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<sup>®</sup> (NEC<sup>®</sup>) Article 770, the cables are also OFNP and FT-6 listed.

## specifications |

<b>Temperatures</b>	Storage:	-40° to +70°C (-40° to +158°F)
	Installation:	0° to +60°C (+32° to +140°F)
	Operation:	-40° to +70°C (-40° to +158°F)

**Approvals and Listings** National Electrical Code<sup>®</sup> (NEC<sup>®</sup>) 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 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	Nominal Cable Weight kg/km (lb/1000 ft)	Nominal Outside Diameter mm (in)	Maximum Tensile Load		Minimum Bend Radius	
			Short-Term N (lbf)	Long-Term N (lbf)	Loaded cm (in)	Installed cm (in)
2 - 12	61 (41)	7.4 (0.29)	1350 (300)	400 (90)	11.1 (4.4)	7.4 (2.9)
24 - 60	127 (85)	11.1 (0.44)	2700 (600)	810 (180)	16.7 (6.6)	11.1 (4.4)
72	143 (96)	11.8 (0.46)	2700 (600)	810 (180)	17.7 (7.0)	11.8 (4.6)



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## transmission performance |

	LANscape® 62.5 Solutions	LANscape Pretium® 150 Solutions	LANscape Pretium 300 Solutions	LANscape Pretium 550 Solutions	LANscape Pretium 600 Solutions	Single-Mode
Fiber Code	K	T	T	T	T	E
Performance Option Code	30	31	80	90	91	01
Optical Fiber Type (µm)	62.5 Multimode	50 Multimode	50 Multimode	50 Multimode	50 Multimode	Single-mode****
ISO/IEC 11801 Nomenclature	OM1	OM2	OM3***	OM4***	OM4***	OS2
Wavelength (nm)	850/1300	850/1300	850/1300	850/1300	850/1300	1310/1383/1550
Maximum Attenuation (dB/km)	3.4/1.0	3.0/1.0	3.0/1.0	3.0/1.0	3.0/1.0	0.4/0.4/0.3
Minimum Over Filled 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/ -	- / - / -
Serial 1 Gigabit Ethernet Distance (m)	300/550	750/600	1000/600	1100/600	1100/600	5000 / - / -
Serial 10 Gigabit Ethernet Distance (m)	33/ -	150/ -	300/ -	550*/ -	600**/ -	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™ Systems solutions.

\*\*\*\* ITU 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 Service 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 Service at 800-743-2671 for other options.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	P	-	T	4	1	<input type="checkbox"/>	<input type="checkbox"/>	D	2	0
1	2	3	4	5	6		7	8	9	10	11	12	13	14

## |1-3

Select fiber count.  
Standard offerings:  
006 024 048 072  
012 036 060

## |5 / 12

Select cable type.  
S / D = Fiber count ≤ 12  
W / D = Fiber counts 24 - 72

## |8

Defines length markings.  
4 = Markings in feet  
(standard)

## |10-11

Select performance option code (see Transmission Performance table).

## |4

Select fiber code (see Transmission Performance table).

## |6

Defines outer jacket.  
P = Plenum

## |9

Defines tensile strength (see Specifications).  
1 = Standard

## |13-14

Defines special requirements.  
20 = No special requirements

## |7

Defines fiber placement.  
T = 12 fiber/buffer tube  
(standard)

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