FREEDM® Loose Tube Gel-Free Cables

CORNING

Features and Benefits

Riser rating
No transition splices when entering buildings

Gel-free waterblocking technology
Craft-friendly cable preparation

Color-coded tubes and fibers
Quick and easy identification

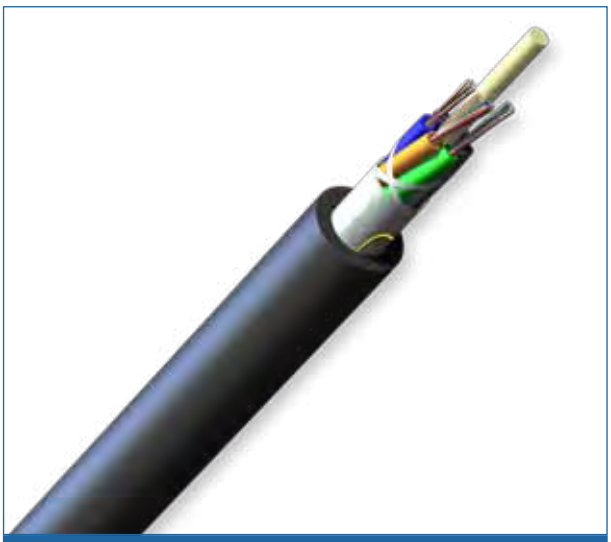
All-dielectric cable construction
Requires no grounding or bonding

UV-resistant, flame-retardant jacket
Rugged, durable and easy to strip

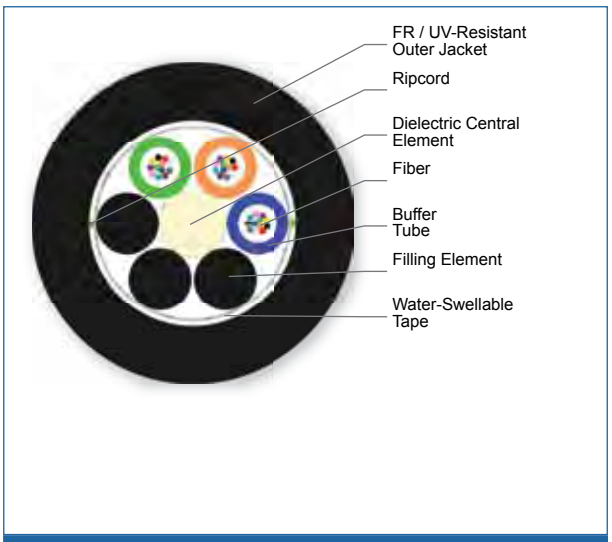
Corning Cable Systems FREEDM® Loose Tube Gel-Free Riser Cables are flame-retardant, indoor/outdoor, riser-rated cables designed for interbuilding and intrabuilding backbones in aerial, duct and riser applications. These cables are protected against water penetration by innovative waterblocking tapes and yarns that swell to absorb water. Waterblocking without the use of messy gels provides more efficient and craft-friendly cable preparation. It also makes cable access easier and simplifies the use of buffer tube fan-out kits. The buffer tubes and fibers in each tube are color-coded for quick, easy identification. The SZ-stranded, loose tube design isolates fibers from installation and environmental rigors and allows for easy midspan access. The cable design is also National Electrical Code® (NEC®) listed (OFNR and FT-4). The all-dielectric cable construction requires no grounding or bonding and the UV-resistant, flame-retardant jacket is rugged, durable and easy to strip.

Standards

Approval and Listings	National Electrical Code® (NEC®) OFNR, CSA OFN FT-4
Common Installations	Outdoor lashed aerial and duct; indoor vertical riser and general purpose horizontal according to National Electrical Code® (NEC) Article 770
Design and Test Criteria	ANSI/ICEA S-104-696



FREEDM® Loose Tube Gel-Free Cables, 36-Fibers



FREEDM® Loose Tube Gel-Free Cables, 36-Fibers

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FREEDM® Loose Tube Gel-Free Cables

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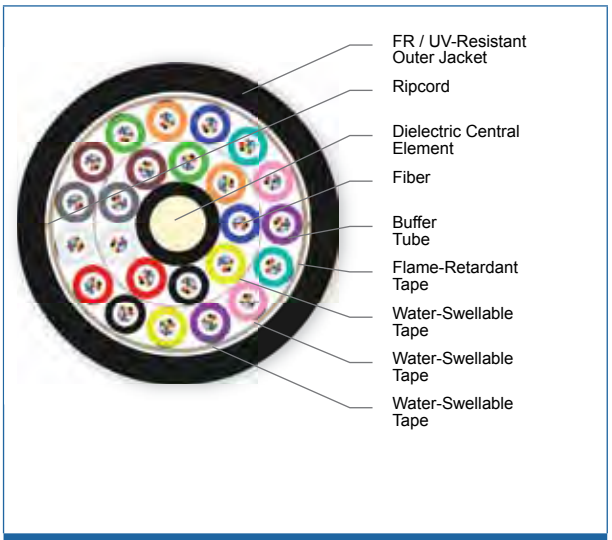
FREEDM® Loose Tube Gel-Free Cables, 288-Fibers



FREEDM® Loose Tube Gel-Free Cables, 288-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	
Max. Tensile Strengths, Short-Term	2700 N (600 lbf)
Max. Tensile Strengths, Long-Term	810 N (180 lbf)

Fiber Count	Product Type	Fibers per Tube	Number of Tube Positions	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Weight
12 - 72	Dielectric	12	6	12.9 mm (0.51 in)	194 mm (7.6 in)	129 mm (5.1 in)	145 kg/km (98 lb/1000 ft)
96	Dielectric	12	8	13.8 mm (0.54 in)	207 mm (8.1 in)	138 mm (5.4 in)	161 kg/km (108 lb/1000 ft)
144	Dielectric	12	12	17.7 mm (0.7 in)	266 mm (10.5 in)	177 mm (7 in)	251 kg/km (168 lb/1000 ft)

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FREEDM® Loose Tube Gel-Free Cables

Fiber Count	Product Type	Fibers per Tube	Number of Tube Positions	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Weight
192 - 216	Dielectric	12	18	17.6 mm (0.69 in)	264 mm (10.4 in)	176 mm (6.9 in)	224 kg/km (151 lb/1000 ft)
288	Dielectric	12	24	19.8 mm (0.78 in)	297 mm (11.7 in)	198 mm (7.8 in)	283 kg/km (190 lb/1000 ft)

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

Transmission Performance

Fiber Type Fiber Core Diameter (µm)	Multimode 62.5	Multimode 50	Multimode 50	Multimode 50	Multimode 50	Single-mode 8.2
Fiber Category	OM1	OM2	OM3	OM4	OM4 Extended Distance	OS2
Fiber Code	K	T	T	T	T	E
Performance Option Code	30	31	80	90	91	01
Wavelengths (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
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 / -	
Serial 1 Gigabit Ethernet (m)	300 / 550	750 / 600	1000 / 600	1100 / 600	1100 / 600	5000 / - / -
Serial 10 Gigabit Ethernet (m)	33 / -	150 / -	300 / -	550 / -	600 / -	10000 / - / 40000

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.

☐ ☐ ☐	☐	U	F	-	T	4	1	☐ ☐	D	2 0
1	2	3	4		5	6	7	8	9	10

1 Select fiber count.
Standard offerings:
012 - 288
Increments of 12

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.
U = FREEDM® Gel-Free Loose Tube Cable

4 Defines outer jacket.
F = Indoor/outdoor riser

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

6 Defines length markings.
4 = Markings in feet (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 .4 / .3 dB/km)

9 Defines cable type.
D = FREEDM® Gel-Free Loose Tube Cable

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.

RoHS COMPLIANT

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