FREEDM® Loose Tube, Gel-Free Cable, Plenum 48 F, Single-mode (OS2)

Part Number:
048EWP-T4101D20

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-swellable yarn eliminates the need for gel-filling compound and allows more efficient and craft-friendly cable preparation.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 Electrical Code® (NEC®) Article 770, the cables are also OFNP and FT-6 listed.

Features and Benefits

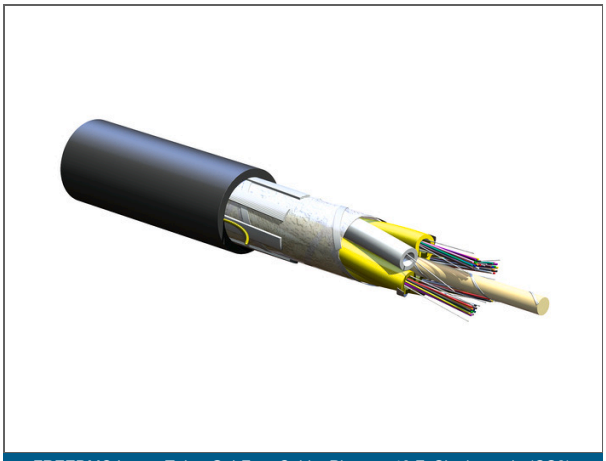
Gel-free waterblocking technology
Craft-friendly cable preparation

Loose tube design
Stable performance and compatibility with all common fiber types

Color-coded fibers
Quick and easy identification

All-dielectric construction
Requires no grounding or bonding

Common installations
Outdoor aerial and duct



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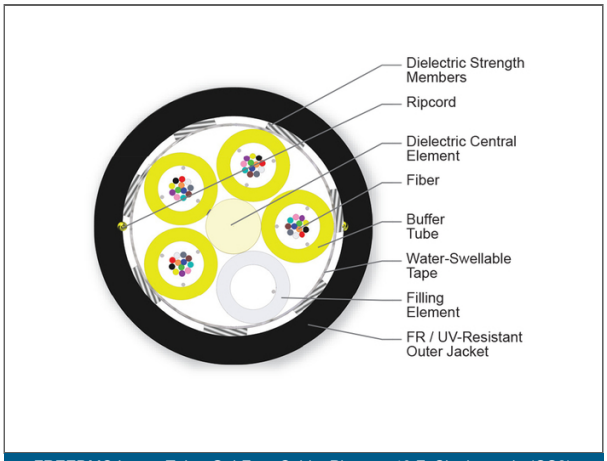

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Specifications

General Specifications	
Installation Methods	Aerial, Direct Buried, Duct, Horizontal
Cable Type	Loose Tube
Environment	Indoor/Outdoor
Product Type	Dielectric
Fiber Category	Single-mode (OS2)
Flame Rating	Plenum (OFCP)
Cable geometry	Round

Standards	
RoHS	Free of hazardous substances according to RoHS 2011/65/EU
Approvals and Listings	National Electrical Code® (NEC®) OFNP
Common Installations	Outdoor aerial and duct, indoor vertical riser and general purpose horizontal according to National Electrical Code® (NEC®) Article 770
Design and Test Criteria	CSA FT-6 ANSI/ICEA S-104-696, NFPA 262 (for plenum, riser and general building applications)

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

Cable Design	
Central Element	Dielectric
Fiber Count	48
Number of Ripcords	2
Outer Jacket Color	Black

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Cable Design	
Outer Jacket Material	Flame-Retardant, UV-Resistant
Tensile Strength Elements and/or Armoring - Layer 1	Dielectric strength members
Buffer Tube Color	Yellow
Buffer Tube Diameter	3 mm (0.12 in)
Number of Active Tubes	4
Number of Filling Elements	2
Number of Tube Positions	6
Tape	Water-swellable
Fiber Coloring	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Fibers per Tube	12
Color Code Standards	Telcordia

Mechanical Specifications	
Max. Tensile Strength, Long-Term	810 N (182.1 lbf)
Max. Tensile Strength, Short-Term	2700 N (606.98 lbf)
Min. Bend Radius Installation	171 mm (6.73 in)
Min. Bend Radius Operation	114 mm (4.49 in)
Nominal Outer Diameter	13.4 mm (0.53 in)

Optical Characteristics	
Fiber Code	E
Performance Option Code	01
Fiber Category	OS2
Fiber Type	Single-mode (OS2) / 250 µm
Fiber Name	Single-mode (OS2)
Maximum Attenuation	0.4 dB/km / 0.4 dB/km / 0.3 dB/km
Wavelengths	1310 nm / 1383 nm / 1550 nm
Fiber Compliance	ITU-T G.652.D

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Dimensions	
Cable Weight	207 kg/km (139.1 lb/1000 ft)

RoHS COMPLIANT

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