

FREEDM® Loose Tube, Gel-Free Cable, Plenum 12 F, Single-mode (OS2)



CORNING

Part Number:
012EWP-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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Specifications

General Specifications

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

Standards

RoHS	Free of hazardous substances according to RoHS 2011/65/EU
Approvals and Listings	National Electrical Code® (NEC®) OFNP

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	12
Number of Ripcords	2
Outer Jacket Color	Black
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)

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Cable Design

Number of Active Tubes	1
Number of Filling Elements	5
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
Fiber Name	Single-mode (OS2)
Fiber Type	Single-mode (OS2) / 250 µm
Fiber Compliance	ITU-T G.652.D
Performance Option Code	01
Maximum Attenuation	0.4 dB/km / 0.4 dB/km / 0.3 dB/km
Wavelengths	1310 nm / 1383 nm / 1550 nm
Fiber Category	OS2

Dimensions

Cable Weight	207 kg/km (139.1 lb/1000 ft)
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The Corning logo is a solid blue square with the word "CORNING" in white, uppercase, sans-serif font centered within it.

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Corning Optical Communications LLC • 4200 Corning Place • Charlotte, NC • 28216 • United States
800-743-2675 • FAX: 828-325-5060 • International: +1-828-901-5000 • www.corning.com/opcomm

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