

## CORNING | Cable Systems

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



Part Number: **048EUF-T4101D20**

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.

This cable is available in 12 different jacket colors - blue, orange, green, brown, slate, white, red, black, yellow, purple, rose and aqua. The colored jacket allows for easy visual identification of the cables while still providing all of the required environmental protection of an indoor/outdoor cable jacket. Black is the standard jacket color using the standard part numbers shown here. Contact Customer Care at 1-800-743-2675 to order other color options.

Part Number	048EUF-T4101D20
Product Description	FREEDM® Loose Tube, Gel-Free Cable, Riser, 48 F, Single-mode (OS2)
Fiber Category	Single-mode (OS2)
Fiber Count	48
Weight	145 kg/km

#### 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 construction**  
Requires no grounding or bonding
- **UV-resistant, flame-retardant jacket**  
Rugged, durable and easy to strip

#### General Specifications

<b>Environment</b>	Indoor/Outdoor Cables
<b>Application</b>	Aerial, Direct Buried, Duct, General Purpose Horizontal, Vertical Riser
<b>Cable Type</b>	Loose Tube

<b>Product Type</b>	Dielectric
<b>Flame Rating</b>	Riser (OFNR)
<b>Fiber Category</b>	Single-mode (OS2)

## Standards

<b>Approval and Listings</b>	National Electrical Code® (NEC®) OFNR, CSA OFN FT-4
<b>Common Installations</b>	Outdoor lashed aerial and duct; indoor when installed according to National Electrical Code® (NEC®) Article 770
<b>Design and Test Criteria</b>	ANSI/ICEA S-104-696

## Cable Design

<b>Central Element</b>	Dielectric
<b>Fiber Count</b>	48
<b>Fiber Coloring</b>	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
<b>Fibers per Tube</b>	12
<b>Number of Tube Positions</b>	6
<b>Number of Active Tubes</b>	4
<b>Buffer Tube Color Coding</b>	Blue, Orange, Green, Brown
<b>Buffer Tube Diameter</b>	2.5 mm (0.1 in)
<b>Number of Filling Elements</b>	2
<b>Tape</b>	Water-swellable
<b>Number of Ripcords</b>	2
<b>Outer Jacket Material</b>	Flame-Retardant, UV-Resistant
<b>Outer Jacket Color</b>	Black

## Temperature Range

<b>Storage</b>	-40 °C to 70 °C (-40 °F to 158 °F)
<b>Installation</b>	-10 °C to 60 °C (14 °F to 140 °F)
<b>Operation</b>	-40 °C to 70 °C (-40 °F to 158 °F)

## Mechanical Characteristics Cable

<b>Max. Tensile Strengths, Short-Term</b>	2700 N (600 lbf)
<b>Max. Tensile Strengths, Long-Term</b>	810 N (180 lbf)
<b>Weight</b>	145 kg/km (98 lb/1000 ft)
<b>Nominal Outer Diameter</b>	12.9 mm (0.51 in)
<b>Min. Bend Radius Installation</b>	194 mm (7.6 in)

**Min. Bend Radius Operation** 129 mm (5.1 in)

## Chemical Characteristics

**RoHS** Free of hazardous substances according to RoHS 2002/95/EG

## Optical Characteristics (cabled)

<b>Fiber Core Diameter</b>	8.2 $\mu$ m
<b>Fiber Type</b>	Single-mode
<b>Fiber Category</b>	OS2
<b>Fiber Code</b>	E
<b>Performance Option Code</b>	01
<b>Wavelengths</b>	1310 nm / 1383 nm / 1550 nm
<b>Maximum Attenuation</b>	0.4 dB/km / 0.4 dB/km / 0.3 dB/km
<b>Serial 1 Gigabit Ethernet</b>	5000 m / - m / - m
<b>Serial 10 Gigabit Ethernet</b>	10000 m / - m / 40000 m

ITU-T G.652 D compliant

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

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