### **FREEDM®** Loose Tube, Gel-Free Cable, Riser

12 F, 62.5 µm multimode (OM1)

### CORNING

Corning FREEDM<sup>®</sup> 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 materials 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 mid-span access. The cable design is also National Electrical Code<sup>®</sup> (NEC<sup>®</sup>) 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.

Note: This cable is available in 12 different jacket colors – blue, orange, green, brown, slate, white, red, black, yellow, violet, 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 part numbers shown here. Contact Customer Care at 1-800-743-2675 to order other color options.

### Features and Benefits

Gel-free waterblocking technology Craft-friendly cable preparation

Loose tube design Mechanical ruggedness and environmental durability

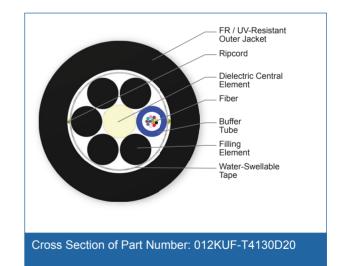
Color-coded tubes and fibers Quick and easy identification

All-dielectric construction Requires no grounding or bonding

#### **Common installations**

Outdoor lashed aerial and duct; indoor vertical riser and general purpose horizontal according to National Electrical Code (NEC) Article 770







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### Standards

Listings	National Electrical Code <sup>®</sup> (NEC <sup>®</sup> ) OFNR
Design Criteria	CSA OFN FT-4
Test Criteria	ANSI/ICEA S-104-696

### Specifications

General Specifications	
Environment	Indoor/Outdoor Cables
Application	Aerial, Direct Buried, Duct, General Purpose Horizontal, (Vertical Riser)
Cable Type	Loose Tube
Product Type	Dielectric
Flame Rating	Riser (OFNR)
Fiber Category	62.5 µm MM (OM1)

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)

Cable Design	
Central Element	Dielectric
Fiber Count	12
Fiber Coloring	Blue, Orange, Green, Brown, Slate, White, Red, Black, Yellow, Violet, Rose, Aqua
Fibers per Tube	12
Number of Tube Positions	6
Number of Active Tubes	1
Buffer Tube Color Coding	Blue
Buffer Tube Diameter	2.5 mm (0.1 in)
Number of Filling Elements	5
Таре	Water-swellable
Number of Ripcords	2

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Cable Design	
Outer Jacket Material	Flame-Retardant, UV-Resistant
Outer Jacket Color	Black

Mechanical Characteristics Cable	
Max. Tensile Strength, Short-Term	2700 N (600 lbf)
Max. Tensile Strength, Long-Term	810 N (180 lbf)
Min. Bend Radius Installation	195 mm (7.6 in)
Min. Bend Radius Operation	130 mm (5.1 in)
Nominal Outer Diameter	13 mm (0.51 in)
Weight	146 kg/km (98 lb/1000 ft)

Chemical Characteristics	
RoHS	Free of hazardous substances according to RoHS 2011/65/EU

### **Fiber Specifications**

Optical Characteristics (cabled)	
Fiber Core Diameter	62.5 µm
Fiber Category	OM1
Fiber Code	К
Performance Option Code	30
Wavelengths	850 nm / 1300 nm
Maximum Attenuation	3.4 dB/km / 1.0 dB/km
Serial 1 Gigabit Ethernet	300 m / 550 m
Serial 10 Gigabit Ethernet	33 m / -
Min. Overfilled Launch (OFL) Bandwidth	200 MHz*km / 500 MHz*km
Minimum Effective Modal Bandwidth (EMB)	220 MHz*km / -

Notes: 1) Improved attenuation and bandwidth options available.

2) Bend-insensitive single-mode fibers available on request.

3) Contact a Corning Customer Care Representative for additional information.



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### **Ordering Information**

Part Number	012KUF-T4130D20
Product Description	$FREEDM^{\$}$ Loose Tube, Gel-Free Cable, Riser, 12 F, 62.5 $\mu m$ multimode (OM1)
EAN Code	4056418173818



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