FREEDM® Reduced Outer Diameter Cable

CORNING

Corning's FREEDM® Reduced Outer Diameter Cable is an all-dielectric loose tube cable designed for microduct applications, and features industry-leading fiber density. The new indoor/outdoor cable design reduces the cable diameter by up to 25 percent (versus traditional Freedm® loose tube cables) which improves fiber density for duct applications.

These cables are flame-retardant, riser-rated that can be used for riser applications. These cables contain buffer tubes that are gel-filled which protect the fibers against water penetration and the core is wrapped with flame-retardant and water-swellable tape. They contain fiberglass yarns that have rodent deterrent properties.

The buffer tubes and fiber in each tube are color-coded for quick, and easy identification. The SZ-stranded, loose tube design isolates fibers from installation and environ- mental rigors and allows for easy mid-span access. The cable design is also National Electical Code® (NEC®) listed (OFNR and FT4). The all-dielectric cable construction requires no grounding or bonding, and the UV-resistant, flame-retardant jacket is rugged, durable and easy to strip.



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Standards	
RoHS	Free of hazardous substances according to RoHS 2011/65/EU

Specifications

General Specifications	
Environment	Indoor/Outdoor
Product Type	Dielectric
Cable Type	Stranded Loose Tube
Flame Rating	Riser (OFNR)

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

Design Characteristics Cable				
Fiber Count	Fibers per Tube	Number of Tube Positions	Number of Active Tubes	Buffer Tube Diameter
12 - 72	12	6	1 - 6	1.4 mm (0.06 in)
96	12	8	8	1.4 mm (0.06 in)
144	12	12	12	1.4 mm (0.06 in)

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Mechanical Characteristics Cable						
Fiber Count	Nominal Outer Diameter	Min. Bend Radius Installation	Min. Bend Radius Operation	Max. Tensile Strength, Short- Term	Max. Tensile Strength, Long- Term	Cable Weight
12 - 72	11 mm (0.43 in)	165 mm (6.5 in)	110 mm (4.33 in)	1320 N (296.75 lbf)	400 N (89.92 lbf)	119 kg/km (79.96 lb/ 1000 ft)
96	11.1 mm (0.44 in)	167 mm (6.57 in)	111 mm (4.37 in)	1320 N (296.75 lbf)	400 N (89.92 lbf)	145 kg/km (97.44 lb/ 1000 ft)
144	13.9 mm (0.55 in)	209 mm (8.23 in)	139 mm (5.47 in)	1320 N (296.75 lbf)	400 N (89.92 lbf)	195 kg/km (131.03 lb/ 1000 ft)

Transmission Performance

Single-mode	
Fiber Name	SMF-28® Ultra
Performance Option Code	01
Fiber Category	G.652.D/G.657.A1
Wavelengths	1310 nm / 1383 nm / 1550 nm
Fiber Code	Z
Maximum Attenuation	0.4 dB/km / 0.4 dB/km / 0.3 dB/km



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