

# FREEDM® Loose Tube Indoor/Outdoor Cables, 2-288 Fibers

An Evolant™ Solutions Product

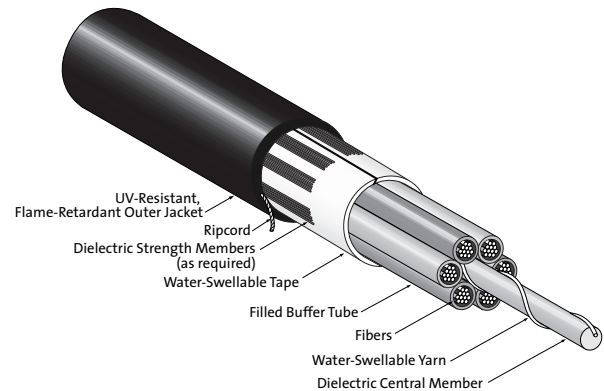
Corning  
Cable Systems

## Description

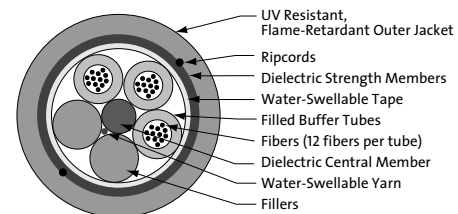
FREEDM® Loose Tube Cable is a lightweight cable designed for indoor/outdoor applications. The cable consists of gel-filled buffer tubes containing up to twelve 250 µm color-coated optical fibers. These buffer tubes are SZ-stranded around a dielectric central member that provides tensile strength and anti-buckling protection. The cable is fully waterblocked through the use of water-swellable tapes and yarns and is constructed with a flame-retardant, UV-resistant jacket.

## Features / Benefits

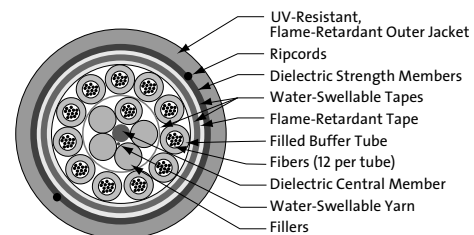
- Flexible, craft-friendly buffer tubes are easily routed in closures
- Standard buffer tube size reduces the number of access tools required by craft personnel
- Color-coded fibers and buffer tubes for quick and easy identification during installation
- Cables incorporate an innovative waterblocking design, eliminating the need for traditional flooding compound and providing efficient and craft-friendly cable preparation
- SZ-stranded, loose tube design isolates fibers from installation and environmental rigors and facilitates mid-span access
- Dielectric strength members have no preferential bend and require no bonding or grounding
- Ideal for high-fiber-count trunk applications, especially in areas with limited conduit or vault space
- Meets NEC® OFNR and CSA FT-4 requirements allowing application flexibility for indoor general purpose horizontal and riser applications
- UV-resistant outer jacket provides environmental protection in outdoor applications



FREEDM Loose Tube Indoor/Outdoor Cable | Drawing ZA-1777



36-Fiber FREEDM Loose Tube Cable | Drawing ZA-1596



144-Fiber FREEDM Loose Tube Cable | Drawing ZA-511

# FREEDM® Loose Tube Indoor/Outdoor Cables, 2-288 Fibers

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## Specifications

|                                  |  |
|----------------------------------|--|
| <b>Maximum Tensile Loads</b>     | Short-Term: 2700 N (600 lbf)<br>Long-Term: 600 N (135 lbf)   |
| <b>Storage Temperature</b>       | -40° to +70°C (-40° to +158°F)   |
| <b>Long-Term Temperature</b>     | -40° to +70°C (-40° to +158°F)   |
| <b>Installation Temperature*</b> | -10° to +60°C (+14° to +140°F)   |
| <b>Approvals and Listings</b>    | NEC® OFNR/CSA OFN FT-4   |
| <b>Common Installations</b>      | Outdoor aerial and duct; indoor vertical riser and general purpose horizontal according to NEC Article 770 |
| <b>Design and Test Criteria</b>  | ANSI/ICEA S-104-696  |

| Fiber Count Range | Maximum Fibers per Tube | Number of Tube Positions | Central Member | Nominal Weight kg/km (lb/1000 ft) | Nominal Outer Diameter mm (in) | Minimum Bend Radius Loaded cm (in) | Minimum Bend Radius Installed cm (in) |
|-------------------|-------------------------|--------------------------|----------------|-----------------------------------|--------------------------------|------------------------------------|---------------------------------------|
| 2-60              | 12                      | 5                        | Dielectric     | 166 (111)                         | 13.1 (0.52)                    | 19.7 (7.8)                         | 13.1 (5.2)                            |
| 61-72             | 12                      | 6                        | Dielectric     | 185 (124)                         | 13.8 (0.54)                    | 20.7 (8.2)                         | 13.8 (5.4)                            |
| 73-96             | 12                      | 8                        | Dielectric     | 245 (164)                         | 15.9 (0.63)                    | 23.9 (9.5)                         | 15.9 (6.3)                            |
| 97-120            | 12                      | 10                       | Dielectric     | 294 (197)                         | 17.7 (0.70)                    | 26.6 (10.5)                        | 17.7 (7.0)                            |
| 121-144           | 12                      | 16                       | Dielectric     | 313 (210)                         | 19.3 (0.76)                    | 29.0 (11.4)                        | 19.3 (7.6)                            |
| 145-216           | 12                      | 18                       | Dielectric     | 341 (229)                         | 20.1 (0.79)                    | 30.2 (11.9)                        | 20.1 (7.9)                            |
| 217-240           | 12                      | 20                       | Dielectric     | 370 (248)                         | 20.9 (0.82)                    | 31.4 (12.3)                        | 20.9 (8.2)                            |
| 241-288           | 12                      | 24                       | Dielectric     | 442 (296)                         | 23.1 (0.91)                    | 34.7 (13.7)                        | 23.1 (9.1)                            |

\* Corning Cable Systems recommends storing indoor/outdoor cable in a proper temperature environment prior to installation to allow the cable temperature to meet installation temperature range specifications for best installation results.

## Transmission Performance

| Fiber Type                            | Single-mode (1310/1550 nm) | 50/125 μm (850/1300 nm) | 62.5/125 μm (850/1300 nm) |
|---------------------------------------|----------------------------|-------------------------|---------------------------|
| <b>Performance Option Code</b>        | 03                         | 31                      | 30                        |
| <b>Maximum Attenuation (dB/km)</b>    | 0.5/0.4                    | 3.5/1.5                 | 3.5/1.0                   |
| <b>Minimum LED Bandwidth (MHz•km)</b> | - / -                      | 500/500                 | 200/500                   |

## Ordering Information

WF-T41   A20  
 **1**   
 **2**   
 **3**

### **1** Select fiber count.

002 to 288

### **2** Select fiber type.

E = Single-mode  
C = 50/125 μm  
K = 62.5/125 μm

### **3** Select performance option code.

03 = Single-mode  
31 = 50/125 μm  
30 = 62.5/125 μm



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