

FREEDM™ gel-free MPC (Multipurpose Cables) can be deployed both indoor and outdoor for campus backbone and building backbone (riser) cabling as well as for the cabling between floor distributors. The innovative dry, gel-free design with water-blocking technology eliminates the need for traditional flooding compound, providing more efficient and craft-friendly cable preparation. The cables can be installed in conduits, ducts and be buried directly in the ground.

## Features and Benefits

Needs minimal cleaning, saving about 20 minutes per fan-out (12 fibres), splicing is made faster and more accurate, resulting in reliable, consistently low-loss terminations

Requires no grounding or bonding

Improved rodent resistance and longitudinal water protection

Can be installed in ducts or conduits

Easy installation in space-constrained areas

Easy identification of the individual fibres

OSP (outdoor) applications

The cable jacket is free of harmful to paint structures

## Standards

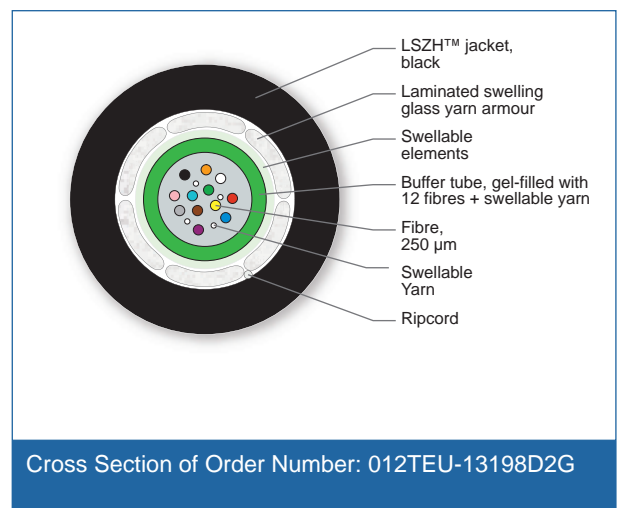
Flame retardant to IEC  
60332-3-24 (bunch)

Low Smoke to IEC 61034

Zero Halogen to IEC  
60754-1

Non Corrosive to IEC  
60754-2

IEC 60794-1-2 F5



## Specifications

|   |   |
|---|---|
| Environment   | Indoor / Outdoor  |
| Application   | Direct Buried, Duct, Vertical Riser, General Purpose Horizontal |
| Cable type  | Central Tube  |
| Product type  | Dielectric armour   |
| Flame rating  | LSZH™/FRNC  |
| Fibre category  | 50 µm MM (OM4)  |
| Coding according to EN 60794-1-1 (DIN VDE 0888-100-1) | U-BQ(ZN)BH  |
| Previous part number                                  | 012TSZ-T2B90D20   |
| Previous coding following DIN VDE 0888-3              | A-BQ(BN)H   |

|                           |                 |
|---------------------------|-----------------|
| Installation and Assembly | -5 °C to 50 °C  |
| Operation                 | -30 °C to 70 °C |
| Storage                   | -30 °C to 70 °C |

|  |   |
|--|---|
| Fibre count  | 12  |
| Fibre colouring                                      | Blue, orange, green, brown, grey, white, red, black, yellow, violet, pink, turquoise                  |
| Buffer tube diameter                                 | 3.0 mm  |
| Buffer tube colour                                   | green   |
| Tensile Strength Elements and/or Armouring - Layer 1 | Laminated glass yarn armour   |
| Number of Ripcords                                   | 1   |
| Outer jacket material                                | Flame-retardant, non-corrosive / low-smoke, zero-halogen (FRNC / LSZH) material                       |
| Outer jacket colour                                  | black   |
| Outer Jacket Nominal Thickness                       | 1.2 mm  |
| Cable Marking  | Meter Handset Sine CORNING Fibre Optic Cable<br>Year FREEDM™ U-BQ(ZN)BH 12 OM4CC CT<br>3.0 LSZH™/FRNC |

|  |              |
|--|--------------|
| Nominal Outer Diameter                 | 7.0 mm       |
| Weight                                 | 48 kg/km     |
| Min. Bend Radius Installation          | 140 mm       |
| Min. Bend Radius Operation             | 110 mm       |
| Max. Tensile Strength for Installation | 1000 N       |
| Crush Resistance (reversible)          | 1400 N/10 cm |
| Fire Load                              | 0.83 MJ/m    |

|      |   |
|------|---|
| RoHS | Free of hazardous substances according to RoHS 2002/95/EG |
|------|---|

## Fibre Specifications

|   |                          |
|---|--------------------------|
| Fibre Name                              | G50/125 ULTRA-BEND 7.5   |
| Fibre Core Diameter                     | 50 µm                    |
| Fibre category                          | OM4                      |
| Fibre Code                              | T                        |
| Wavelengths                             | 850 nm / 1300 nm         |
| Maximum Attenuation                     | 2.8 dB/km / 1.0 dB/km    |
| Typical Attenuation                     | 2.4 dB/km / 0.8 dB/km    |
| Serial 1 Gigabit Ethernet               | 1100 m / 600 m           |
| Serial 10 Gigabit Ethernet              | 550 m / -                |
| Min. Overfilled Launch (OFL) Bandwidth  | 3500 MHz*km / 500 MHz*km |
| Minimum Effective Modal Bandwidth (EMB) | 4700 MHz*km / -          |
| Induced attenuation @ 7.5 mm radius     | < 0.2 dB / -             |

- Notes:
- 1) Meets 0.75 ns optical skew when used in all Corning Plug and Play™/Pretium EDGE® systems solutions.
  - 2) 50 µm multimode fibre macrobend loss ≤ 0.2 dB at 850 nm for two turns around 7.5 mm radius mandrel
  - 3) Improved attenuation and bandwidth options available
  - 4) Bend-insensitive single-mode fibres available on request
  - 5) Contact a Corning Customer Care Representative for additional information

## Ordering Information

|                     |   |
|---------------------|---|
| Part Number         | 012TEU-13198D2G   |
| Product Description | FREEDM™ Gel-Free Central Tube Indoor/Outdoor Cable 12F G50 MMF ClearCurve® OM4 CT 3.0 |
| EAN Code            | 4042673561576   |

## Shipping Information

|                         |         |
|-------------------------|---------|
| Maximum delivery length | 4,000 m |
|-------------------------|---------|

