

FREEDM™ Gel-Free Indoor/Outdoor Cable

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CORNING

Part Number:
004TSZ-T3180D2H

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

Dry, gel-free tube

Minimal cleaning, easy cable preparation

All-dielectric construction

Requires no grounding or bonding

Laminated swelling glass yarns

Improved rodent resistance and longitudinal water protection

UV- and microbe-resistant

Can be installed in ducts or conduits

Small diameter and bend radius

Easy installation in space-constrained areas

Fibers color coding to Telcordia-Bellcore

Easy identification of the individual fibers

Waterblocking technology

OSP (outdoor) applications

Silicon-free outer jacket

The cable jacket is free of harmful to paint structures

Flame retardant

LSZHTM/FRNC

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Specifications

Mechanical Specifications	
Max. Tensile Strength, Long-Term	300 N
Max. Tensile Strength, Short-Term	1000 N
Min. Bend Radius Installation	99 mm
Min. Bend Radius Operation	66 mm
Nominal Outer Diameter	6.6 mm

Cable Design	
Fiber Count	4
Number of Ripcords	1
Outer Jacket Color	Black
Outer Jacket Material	Flame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material
Tensile Strength Elements and/or Armoring - Layer 1	Dielectric strength members
Tensile Strength Elements and/or Armoring - Layer 2	Water-swellable dielectric strength members
Number of Tube Positions	1
Fiber Coloring	Blue, Orange, Green, Brown
Fibers per Tube	4

Environmental Conditions	
Temperature Range, Installation	-10 °C to 60 °C
Temperature Range, Storage	-30 °C to 70 °C
Temperature Range, Operation	-30 °C to 70 °C

General Specifications	
Environment	Indoor/Outdoor

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General Specifications

Cable Type	Single Tube
Product Type	Dielectric armor
Fiber Category	50 µm MM (OM3)
Flame Rating	LSZH™/FRNC
Application	Aerial, Direct Buried, Duct, General Purpose Horizontal

Ordering Information

Product Number	004TSZ-T3180D2H
Weight	42 kg/km

Standards

RoHS	Free of hazardous substances according to RoHS 2011/65/EU
Flame Test Method	Flame retardant according to IEC 60332-1-2 (single cable), IEC 60332-3-24 (bunch of cables) Reaction to fire according to EN 50575 and EN 13501-6 Low smoke according to IEC 61034 Non-corrosive according to IEC 60754-2
Waterblocking	IEC 60794-1-2 F5
Flame propagation test	Flame retardant according to IEC 60332-1-2 (single cable) and IEC 60332-3-24 (bunch of cables)
Reaction to fire requirements	Reaction to fire according to EN 50575 and EN 13501-6
Smoke density	Low Smoke to IEC 61034
Level of corrosion	Non-corrosive according to IEC 60754-2

Optical Characteristics

Fiber Code	T
Fiber Type	Multimode
Performance Option Code	80

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Fiber Core Diameter	50 µm
Minimum Effective Modal Bandwidth (EMB)	2000 MHz*km / -
Maximum Attenuation	3.0 dB/km / 1.0 dB/km
Min. Overfilled Launch (OFL) Bandwidth	1500 MHz*km / 500 MHz*km
Serial 1 Gigabit Ethernet	1000 MHz*km / 600 MHz*km
Serial 10 Gigabit Ethernet	300 MHz*km / -
Wavelengths	850 nm / 1300 nm
Fiber Category	OM3



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