

FREEDM™ Tight Buffer Dielectric Armour Indoor/ Outdoor Cable 12F E9/125 SMF-28® Ultra 0.9mm TB3, Cca-s1a,d1,a1



CORNING

Part Number:
012Z8J-32125E2G

Corning MPC (multipurpose cable) tight-buffered cables are flame-retardant, indoor/outdoor cables designed for interbuilding and intrabuilding backbones in duct and riser applications.

The tight-buffered construction facilitates easier termination for low-fiber-count applications in the local area network (LAN) and eliminates need for fan-out kits.

These cables are designed for installation in conduits, ducts and in-house.

Features and Benefits

Waterblocking technology

OSP (outdoor) applications

All-dielectric cable construction

Requires no grounding or bonding

Laminated glass yarns

For improved rodent resistance

UV- and microbe-resistant

Can be installed in ducts or conduits

Dry cable core by means of water swellable elements

Allows efficient and craft-friendly cable preparation in outdoor or indoor/outdoor applications

Small diameter and bend radius

Easy installation in space-constrained areas

TB3 tight-buffered construction

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Flame retardant

LSZH™/FRNC

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Specifications

Mechanical Specifications	
Crush resistance	2000 N/10 cm
Min. bend radius installation	175 mm
Min. bend radius operation	130 mm
Nominal outer diameter	8.7 mm

Cable Design	
Cable marking	Meter - Handset - CE 17 EN 50575 Cca-s1a,d1,a1 - Sine - CORNING - Fibre Optic Cable - Year - FREEDM(TM) U-VQ(ZN)BH 12 E9/125 TB3 0.9 LSZH(TM)/FRNC
Central element	Aramid yarn with swellable elements
Fibre count	12
Number of ripcords	1
Buffer tube diameter	900 mm
Outer jacket colour	Black
Buffering diameter	900 µm
Outer jacket material	Flame-retardant, non-corrosive/low-smoke, silicon-free, zero-halogen (FRNC/LSZH) material
Outer jacket nominal thickness	0.8 mm
Tensile strength elements and/or armouring - Layer 1	Aramid yarn with swellable elements
Tensile strength elements and/or armouring - Layer 2	Aramid yarn with swellable elements
Inner jacket colour	Black
Inner jacket material	Flame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material
Inner jacket nominal thickness	0.5 mm
Tape	Water-swellaable
Tensile strength elements and/or armouring - Layer 3	Laminated glass yarn armour
Tight buffer colour, layer 1	Blue, orange, green
Tight buffer colour, layer 2	Brown, grey, white, red, black, yellow, violet, pink, turquoise

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Cable Design	
Tight buffer type	TB3 (easy strip up to 10 cm)
Flame rating	LSZH™/FRNC

Environmental Conditions	
Temperature range, storage	-25 °C to 70 °C
Temperature range, installation	-5 °C to 50 °C
Temperature range, operation	-20 °C to 60 °C

General Specifications	
Environment	Indoor/Outdoor
Cable type	Tight-buffered
Product type	Dielectric armour
Fibre category	SMF-28® Ultra 242 Optical Fibre
Flame rating	LSZH™/FRNC
Coding according to EN 60794-1-1 (DIN VDE 0888-100-1)	U-VQ(ZN)BH
Application	Direct Buried, Duct, Vertical Riser, General Purpose Horizontal

Ordering Information	
Product Number	012Z8J-32125E2G
Weight	74 kg/km

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

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Standards

Reaction to fire requirements	Reaction to fire according to EN 50575 and EN 13501-6
Smoke density	Low Smoke to IEC 61034
Halogen content test	Zero Halogen to IEC 60754-1
Level of corrosion	Non-corrosive according to IEC 60754-2

Optical Characteristics

Cable cutoff wavelength	1260 nm
Fibre code	Z
Fibre name	SMF-28® Ultra TB Cable Optical Fibre
Fibre Type	Single-mode
Fibre compliance	ITU-T G.652.D and ITU-T G.657.A1
Cladding diameter	125 µm
Dispersion @ 1550 nm	18 nm
Dispersion in the range 1285 to 1330 nm	3.5 nm
Maximum Attenuation	0.38 dB/km / 0.38 dB/km / 0.25 dB/km
Mode-Field Diameter at 1310 nm	9.2 µm
Serial 1 gigabit ethernet	5000 MHz*km / - / -
Serial 10 gigabit ethernet	10000 MHz*km / 40000 MHz*km
Wavelengths	1310 nm / 1383 nm / 1550 nm
PMD Link Design Value	0.04 ps/(nm*km)
PMD (Polarization Mode Dispersion) maximum individual fibre	0.1 ps/(nm*km)
Coating diameter	242 µm



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