

FREEDM™ Tight Buffer Indoor/Outdoor Cable

24F E9/125 SMF-28® ULTRA 0.9 TB3, Cca-s1a,d1,a1

CORNING

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-fibre-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

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

Easy and consistent stripping up to 10 cm

Flame retardant

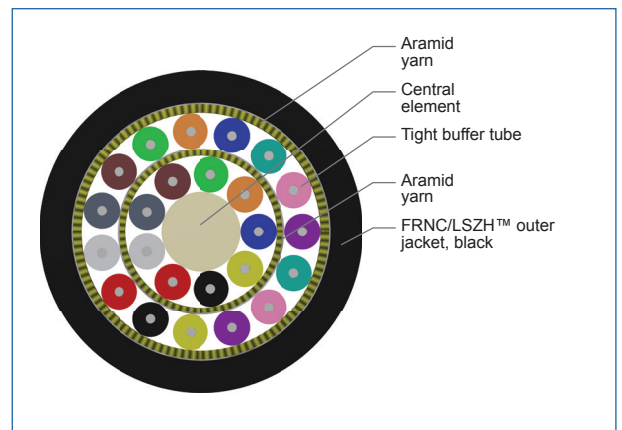
LSZH™/FRNC

Silicon-free outer jacket

The cable jacket and the outer jacket of subunits (not valid for 900µm tight buffers) are free of harmful components to paint structures



Part Number: 024Z8X-32125E2C



Cross Section of Order Number: 024Z8X-32125E2C

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Standards

Flame Test Method	Flame retardant 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 to IEC 61034 and Zero Halogen to IEC 60754-1 Non-corrosive to IEC 60754-2
Waterblocking	IEC 60794-1-2 F5

Specifications

General Specifications	
Environment	Indoor/Outdoor Universal Cable
Application	Direct Buried, Duct, Vertical Riser, General Purpose Horizontal
Cable type	Tight-buffered
Product type	Dielectric
Flame rating	LSZH™/FRNC
Fibre Category	SMF-28® Ultra 242 Optical Fibre
Coding according to EN 60794-1-1 (DIN VDE 0888-100-1)	U-VQ(ZN)H
Previous coding following DIN VDE 0888-3	A-VQH
Product category	Core product / Fastship
Reaction to fire	Cca,s1a,d1,a1

Temperature Range	
Installation and assembly	-5 °C to 50 °C
Operation	-20 °C to 60 °C
Storage	-25 °C to 70 °C

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Cable Design

Central element	FRNC/LSZH
Central element diameter	1.95 mm
Fibre count	24
Buffering diameter	900 µm
Tight buffer type	TB3 (strippable up to 10 cm)
Tight buffer colour, layer 1	Blue, Orange, Green, Brown, Grey, White, Red, Black, Yellow
Tensile Strength Elements and/or Armouring - Layer 1	Aramid yarn with swellable elements
Tight buffer colour, layer 2	Violet, Pink, Turquoise, Blue*, Orange*, Green*, Brown*, Grey*, White*, Red*, Black*, Yellow*, Violet*, Pink*, Turquoise*
Tensile strength elements and/or armouring - Layer 2	Aramid yarn with swellable elements
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	0.8 mm
Cable marking	Metre - Handset - CE 17 EN 50575 Cca-s1a,d1,a1 - Sine - CORNING - Fibre Optic Cable - Year - FREEDM(TM) U-VQ(ZN)H 24 E9/125 TB3 0.9 LSZH(TM)/FRNC

Notes: Fibres indicated by * have black rings (white with double ring replaces black with single ring)

Mechanical Characteristics Cable

Nominal Outer Diameter	8.1 mm
Weight	61 kg/km
Min. Bend Radius Installation	120 mm
Min. Bend Radius Operation	80 mm
Max. tensile strength for installation	1500 N
Crush resistance (reversible)	750 N/10 cm
Fire Load	1.15 MJ/m

Chemical Characteristics

RoHS	Free of hazardous substances according to RoHS 2011/65/EU
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Fibre Specifications

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

Notes: 1) Contact a Corning Customer Care Representative for additional information

Ordering Information

Part Number	024Z8X-32125E2C
Product Description	FREEDM™ Tight Buffer Indoor/Outdoor Cable 24F E9/125 SMF-28® ULTRA 0.9mm TB3, Cca-s1a,d1,a1

Shipping Information

Maximum delivery length	2,000 m
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