

FREEDM™ Gel-filled Central Tube Dielectric Armour Indoor/Outdoor Cable, U-DQ(ZN)BH 24F SMF-28® Ultra CT 2.1, B2ca-s1a,d0,a1 YL



CORNING

Part Number:
024ZEU-97120ACY

FREEDM™ gel-filled 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 distributors floor. Fibers are color-coded for quick and easy identification. Central buffer tube cable construction makes it compact, light and flexible, ideal for connections requiring a moderate fiber count.

Features and Benefits

All-dielectric cable construction

Requires no grounding or bonding

Small diameter and bend radius

Easy installation in space-constrained areas

UV- and microbe-resistant

Can be installed in ducts or conduits

Laminated glass yarns

For improved rodent resistance

Fibres colour coding to Telcordia-Bellcore

Easy identification of the individual fibres

Silicon-free outer jacket

Cable jacket is free of components harmful to paint structures

Flame retardant

LSZH/FRNC

Meets industry standard waterblocking requirements for outdoor cable

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Specifications

General Specifications

Cable type	Central Tube
Environment	Indoor/Outdoor
Product type	Dielectric armour
Fibre category	SMF-28® Ultra
Flame rating	LSZH/FRNC
Coding according to EN 60794-1-1 (DIN VDE 0888-100-1)	U-DQ(ZN)BH
Application	Duct
Cable geometry	Round

Standards

Reaction to Fire	B2ca, s1a, d0, a1
RoHS	Free of hazardous substances according to RoHS 2011/65/EU
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
Halogen content test	Zero Halogen according to IEC 60754-1
Level of corrosion	Non-corrosive according to IEC 60754-2

Environmental Conditions

Temperature range, installation	-5 °C to 50 °C
Temperature range, operation	-30 °C to 70 °C
Temperature range, storage	-30 °C to 70 °C

Cable Design

Tube Filling Type	Gel-filled
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Cable Design

Cable marking	Metre - Handset - CE 23 EN 50575 B2ca-s1a,d0,a1 - Sinus - CORNING - Fibre Optic Cable - Year - U-DQ(ZN)BH 24 SMF-28® Ultra CT 2.1 YL - G.652.D & G.657.A1 - LSZH(TM)/FRNC
Fibre count	24
Number of ripcords	1
Buffer tube colour coding, layer 1	Yellow
Outer jacket colour	Yellow
Outer jacket material	Flame-retardant, non-corrosive/low-smoke, zero-halogen (FRNC/LSZH) material
Outer jacket nominal thickness	1.2 mm
Number of active tubes	1
Strength members	Glass yarn armouring
Cable marking colour	Black
Fibre colouring	1-12: blue, orange, green, brown, grey, white, red, black, yellow, violet, rose, turquoise - 13-24: (all with one black ring mark) blue, orange, green, brown, grey, white, red, natural, yellow, violet, pink, turquoise
Colour Code Standards	Telcordia
Inner Tube Diameter	2.1 mm

Mechanical Specifications

Crush resistance	1000 N/10 cm
Max. tensile strength for installation	1500 N
Min. bend radius installation	114 mm
Min. bend radius operation	57 mm

Optical Characteristics

Fibre code	Z
Performance option code	20
Fibre category	OS2
Fibre Type	Single-mode (OS2) / 250 µm

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Optical Characteristics

Fibre name	Bend-Improved Single-mode (OS2)
Maximum Attenuation	0.34 dB/km / 0.34 dB/km / 0.20 dB/km
Wavelengths	1310 nm / 1383 nm / 1550 nm
Fibre compliance	ITU-T G.652.D and ITU-T G.657.A1
Fibre core diameter	8.2 µm
Cladding diameter	125 µm
Coating diameter	242 µm
Dispersion @ 1550 nm	≤ 18 [ps/(nm*km)]
Dispersion @ 1625 nm	≤ 22 [ps/(nm*km)]
Cable cutoff wavelength	1260 nm
Mode-Field Diameter at 1310 nm	9.2 µm
Mode-Field Diameter at 1550 nm	10.4 µm
PMD Link Design Value	≤ 0.04 ps/√km
PMD (Polarization Mode Dispersion) maximum individual fibre	≤ 0.1 ps/√km

Dimensions

Outer diameter	5.7 mm
Cable Weight	42.5 kg/km
Max. cable length per reel/drum	4000 m



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