

FO Universal Cable 12E9/125µm OS2 1.5kN with non-metallic rodent protection



## tde - FO Universal cables

This cable can be used for LAN and WAN backbones, telecom access lines, fiber to business and fiber to the building drop connections as well as fiber to the home drop and access connections. With its FireBur<sup>®</sup> LSHF sheathing this cable is ideal for mixed indoor and outdoor installation. This cable features a high tensile strength and a degree of rodent protection, effective in many cases. It is equally suited for installation in ducts and on trays. The cable is suited for installation in tubes by blowing and flooding. The cable may be used for direct burial with proper sand back filling.

### Features

- Robust, non metallic fibre optic outdoor and indoor cable with stranded loose tubes.
- High crush resistance for high transmission reliability.
- Easy handling due to cable construction with dry interstices.
- Non metallic rodent protection.
- The two coloured ripcords are easy to identify and enable the safe opening of the cable sheath.
- Flame retardant halogen-free FR/LSOH sheath.



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## FO Universal Cable 12E9/125µm OS2 1.5kN with non-metallic rodent protection

### Application

- LAN backbone, access and riser zone.
- Connection cable between the building distributors and/or floor distributors.
- Suitable for laying in cable trays, ducts and vertical shafts.
- Can also be spliced in all FO distributors and joints.

### Technical Data

#### Mechanical characteristics

Temperature range	Storage -25 to +70°C, IEC 60794-1-22 F1
	Pulling in -10 to +50°C
	Operation -25 to +60°C
Tensile performance	IEC 60794-1-21 E1
Crush resistance	IEC 60794-1-21 E3
Impact	IEC 60794-1-21 E4
Repeated bending	IEC 60794-1-21 E6
Torsion	IEC 60794-1-21 E7
Bend	IEC 60794-1-21 E11
Water penetration	IEC 60794-1-22 F5

#### General characteristics

Sheath colour	green, similar to RAL 6016
Zero halogen, non corrosive gases	IEC 60754-1/-2, EN 60754-1/-2, VDE 0482-754-1/-2
Flame propagation	IEC 60332-1-2, EN 60332-1-2, VDE 0482-332-1-2
Flame spread	IEC 60332-3-24, EN 50266-2-4, VDE 0482-266-2-4
Smoke density	IEC 61034-1/-2, EN 61034-1/-2, VDE 0482-1034-1/-2
Reaction to fire (Euroclasses)	EN 13501-6: D <sub>ca</sub> -s2,d1,a1

Cabletype	Universal U-DQ(ZN)BH for indoor and outdoor use
	non metallic, dry interstices, rodent protection, flame retardant, in accordance with IEC 60332.1 and IEC 60332.3 C
Fibertype	E9/125 G.652.D
No. of fibers	12
Loose tube	1
Sheath ø	7.6 mm
Weight	68 kg/km
Bending radius	115 mm
Tensile load	1500 N
Crush resistance	3000 N continuous
	5000 N short term
Fire load	275 kWh/km
	990 MJ/km

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### Length tolerances (prefabricated with plugs)

Tolerances for lengths up to 40m	± 100 cm
Tolerances for lengths up to 100m	± 100 cm
Tolerances for lengths from 100m	± 2%

## FO Fiber

### Optical properties

Maximum attenuation (cabled)	1310 nm: 0.34 / 1383 nm: 0.34* dB/km (*post hydrogen aging performance)
Maximum Chromatic Dispersion	3.5 ps/(nm x km)
Zero Dispersion Wavelength $\lambda_0$	1304 $\leq \lambda_0 \leq$ 1324 nm
Maximum Zero Dispersion Slope $S_0$	0.092 ps/(nm <sup>2</sup> x km)
Mode-Field Diameter	9.2 +/- 0,4 µm
Maximum Cable Cut-off Wavelength $\lambda_{CC}$	1260 nm
PDM Link Design Value	$\leq$ 0.04 ps/ $\sqrt{\text{km}}$
Max. individual fibre PMD	$\leq$ 0.1 ps/ $\sqrt{\text{km}}$
Max. individual cable PMD	$\leq$ 0.2 ps/ $\sqrt{\text{km}}$
Refractive Index	1.4676

### Mechanical properties

Cladding diameter	125.0 +/- 1.0 µm
Maximum Core/Cladding Concentricity Error	0.5 µm
Maximum Cladding Non-Circularity	0.7 %
Coating diameter	245 +/- 5 µm
Maximum Cladding/Coating Concentricity Error	12 µm
Operating temperature range	-60 to +85°C
Test load	100 kpsi

## Product variants & accessories

Art.-No.	Description
L-UDQ(ZN)BH012E09D	FO Universal Cable 12E9/125µm OS2 1.5kN with non-metallic rodent protection
L-UDQ(ZN)BH012G50-3D	FO Universal Cable 12G50/125µm OM3 1.5kN with non-metallic rodent protection
L-UDQ(ZN)BH012G50-4D	FO Universal Cable 12G50/125µm OM4 1.5kN with non-metallic rodent protection
L-UDQ(ZN)BH012G50D	FO Universal Cable 12G50/125µm OM2 1.5kN with non-metallic rodent protection
L-UDQ(ZN)BH012G62D	FO Universal Cable 12G62,5/125µm OM1 1.5kN with non-metallic rodent protection