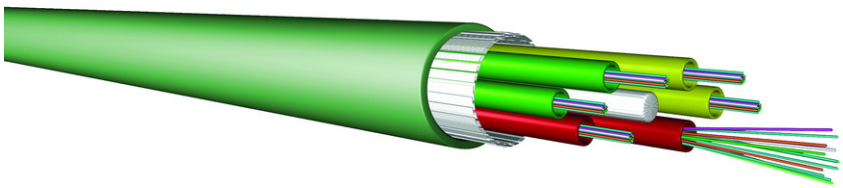
Universal-Kabel (MultiTube); gelgefüllte vers. Bündeladern; 9KN Zugfest.; nichtm. Nagetierschutz



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® 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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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, no 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: E_{ca}

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	Corning G50/125 OM4
No. of fibers	96
Loose tube	8
Sheath ø	13.5 mm
Weight	186 kg/km
Bending radius	205 mm
Tensile load short term	9.000 N
Tensile load continuous	5.000 N
Crush resistance short term	5.000 N
Crush resistance continuous	3.000 N
Fire load	808 kWh/km

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	3200 MJ/km

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

Attenuation typical (cabled)	850 nm: 2.5 / 1300 nm: 0.5 dB/km
Attenuation maximum (cabled)	850 nm: 2.7 / 1300 nm: 0.7 dB/km
OFL bandwidth as per TIA/EIA 455-204 and IEC 60793-1-41	850 nm: 3500 / 1300 nm: 500 MHz x km
High-Performance EMB bandwidth as per TIA/EIA 455-220A and IEC 60793-1-49	850 nm: 4700 / 1300 nm: 4700 MHz x km
Refractive Index	850 nm: 1.480 / 1300 nm: 1.479

Technical properties

Bending radius		No. of windings (turns)	Max. induced attenuation
37.5 mm		100	850 nm: ≤ 0.05 / 1300 nm: ≤ 0.15 dB/km
15 mm		2	850 nm: ≤ 0.1 / 1300 nm: ≤ 0.3 dB/km
7.5 mm		2	850 nm: ≤ 0.2 / 1300 nm: ≤ 0.5 dB/km

Geometrical and mechanical characteristics

Numerical Aperture	0.200 +/- 0.015
Core Ø	50.0 +/- 2.5 µm
Maximum Core Non-Circularity	5 %
Cladding Ø	125.0 +/- 1.0 µm
Maximum Cladding Non-Circularity	1.0 %
Maximum Cladding/Core Concentricity Error	1.5 µm
Maximum Coating Concentricity Error	12 µm
Coating Ø	242 +/- 5 µm
Test load	100 kpsi

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Product variants & accessories

Art.-No.	Description
U-DQ(ZN)BH8x12G50-OM4-13,5-GN-Eca	Universal-Kabel (MultiTube); gelgefüllte vers. Bündeladern; 9KN Zugfest.; nichtm. Nagetierschutz

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