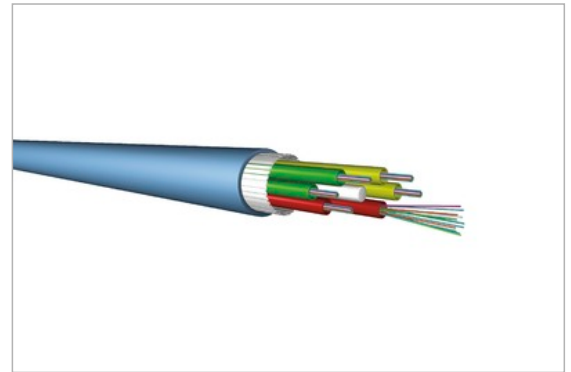


Description

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.



Technical Data

Standards

| | |
|-----------------------------------|----------------|
| ISO 11801 2 nd edition | EN 187 000 |
| IEC 60794-2 | IEC 60794-2-20 |
| EN 50 173-1 | IEC 60794-2-21 |

Construction

| | |
|-------------------------|---|
| Cabletype | Universal U-DQ(ZN)BH for indoor and outdoor use |
| Central strength member | ø2.5 mm FRP rod |
| Loose tube | ø2.3 mm jelly filled loose tubes, with 2 – 12 fibers each, up to 22 tubes in two layers, for lay-up |
| Water blocking | The core is water blocked using swellable tape and tread |
| Wrapping | Polyester nonwoven |
| Strain Relief | Glasroving elements |
| Ripcord | Polyester ripcord for easy slitting of the sheath |
| Sheath | 1.5 mm blue FireBur®, UV stabilized, EN 50290-2-27 |

Fire rating

| | |
|---------------|---------------------------|
| IEC 60332-1-2 | Single vertical wire test |
| IEC 60754-1 | No halogens |
| IEC 60754-2 | No acid matters |
| IEC 61034-2 | No dense smoke |

FO Universal Cable 72G50/125µm OM3 6.0kN with non-metallic rodent protection

Heat of combustion

| Fiber count; 6 fiber/tube | Fiber count; 8 fiber/tube | Fiber count; 12 fiber/tube | MJ/km | KWh/m |
|------------------------------|------------------------------|-------------------------------|-------|-------|
| 6-36 | 8-48 | 12-72 | 2200 | 0.61 |
| 42-48 | 56-64 | | 2900 | 0.81 |
| 54-60 | 72-80 | | 3700 | 1.03 |
| 66-72 | | | 4600 | 1.28 |

Physical properties

| | | |
|------------------------------|-----|---|
| Tensile strength (dynamic) | E1 | 6000 N |
| Tensile strength (permanent) | E1 | 4000 N |
| Compressive strength (crush) | E3 | 3000N |
| Impact | E4 | 25 Nm |
| Torsion | E7 | 5 cycles ± 1 turn |
| Kink | E10 | The cables do not form a kink when a loop is drawn together to a diameter 12 times the cable nominal diameter |
| Temperature range | F1 | The cables can bear temperature cycling between -40°C to +70°C. |
| | | The cables will operate without any attenuation variation (≤0.05 dB) in the temperature interval -30°C to +60°C. |
| | | The cables will operate with a maximum attenuation variation of 0.1 dB/km in the temperature interval -40°C to +70°C. |
| Water penetration | F5B | No water on free end |

Mechanical properties

| Fiber count; 6 fiber/tube | Fiber count; 8 fiber/tube | Fiber count; 12 fiber/tube | Nominal diameter | Nominal cable weight | Minimum bending radius |
|------------------------------|------------------------------|-------------------------------|------------------|----------------------|------------------------|
| 6-36 | 8-48 | 12-72 | 13.0mm | 145 kg/km | 160mm |
| 42-48 | 56-64 | | 14.5mm | 180 kg/km | 175mm |
| 54-60 | 72-80 | | 16.0mm | 230 kg/km | 190mm |
| 66-72 | | | 17.5mm | 270 kg/km | 210mm |

FO Fiber

| | |
|------|---|
| Type | Draka OM3 50/125µm bend-insensitive multimode fiber (C31) |
|------|---|

FO Universal Cable 72G50/125µm OM3 6.0kN with non-metallic rodent protection

| | | | |
|---------------------|----------------------------|---------------------------|--------------------|
| Standards and Norms | IEC 60793-2-10: type A1a.2 | ITU G.651.1 | TIA/EIA-492 AAAC |
| | ISO/IEC 11801 category OM3 | EN 60793-2-10: type A1a.2 | ANSI/TIA/EIA-568.C |
| | ISO/IEC 24764 | EN 50173-1 category OM3 | IEEE 802.3 |

Cable attenuation according to IEC 60793-1

| | |
|--|---------------------|
| Maximum value of cable at 850 nm | ≤ 3.0 dB/km |
| Maximum value of cable at 1300 nm | ≤ 1.0 dB/km |
| Attenuation limit according to IEC 60793-2-10, 850 nm | ≤ 2.5 dB/km |
| Attenuation limit according to IEC 60793-2-10, 1300 nm | ≤ 0.8 dB/km |
| Inhomogeneity of OTDR trace for any two 1000 metre fiber lengths | Max. 0.1 dB/km |
| Fiber bending loss R=7.5 mm 850/1300 nm | ≤ 0.2 dB / ≤ 0.5 dB |
| Fiber bending loss R=15 mm 850/1300 nm | ≤ 0.1 dB / ≤ 0.3 dB |

Bandwidth according to IEC 60793-1

| | |
|--|---------------|
| Overfilled (OFL) modal bandwidth at 850 nm | ≥ 1500 MHz*km |
| Overfilled (OFL) modal bandwidth at 1300 nm | ≥ 500 MHz*km |
| Effective Modal Bandwidth (EMB) at 850 nm (Assured by means of differential mode delay (DMD) measurement as specified in IEC 60793-1-49) | ≥ 2000 MHz*km |

Other properties according to IEC 60793-1

| Attribute | Measurement method | Limits |
|-----------------------------------|--------------------|----------------|
| Core diameter | IEC/EN 60793-1-20 | 50 ± 2 µm |
| Cladding diameter | IEC/EN 60793-1-20 | 125.0 ± 1.0 µm |
| Cladding non-circularity | IEC/EN 60793-1-20 | ≤ 0.7% |
| Core non-circularity | IEC/EN 60793-1-20 | ≤ 5% |
| Core-cladding concentricity error | IEC/EN 60793-1-20 | ≤ 1 µm |

FO Universal Cable 72G50/125µm OM3 6.0kN with non-metallic rodent protection

| | | |
|--|-------------------|---|
| Primary coating diameter - uncoloured | IEC/EN 60793-1-21 | 242 ± 5 µm |
| Primary coating diameter - coloured | IEC/EN 60793-1-21 | 250 ± 15 µm |
| Primary coating non-circularity | IEC/EN 60793-1-21 | ≤ 5% |
| Primary coating-cladding concentricity error | IEC/EN 60793-1-21 | ≤ 6 µm |
| Group index of refraction at 850 nm | IEC/EN 60793-1-22 | 1.482 |
| Group index of refraction at 1300 nm | IEC/EN 60793-1-22 | 1.477 |
| Proof stress level | IEC/EN 60793-1-30 | ≥ 0.7 (≈ 1 %) |
| Typical average strip force | IEC/EN 60793-1-32 | 1.7 N |
| Strip force (peak) | IEC/EN 60793-1-32 | 1.3 N ≤ F _{peak.strip} ≤ 8.9 N |
| Numerical aperture | IEC/EN 60793-1-43 | 0.200 ± 0.015 |

| Art.-No. | Description |
|----------------------|--|
| L-U-DQ(ZN)BH072G50-3 | FO Universal Cable 72G50/125µm OM3 6.0kN with non-metallic rodent protection |