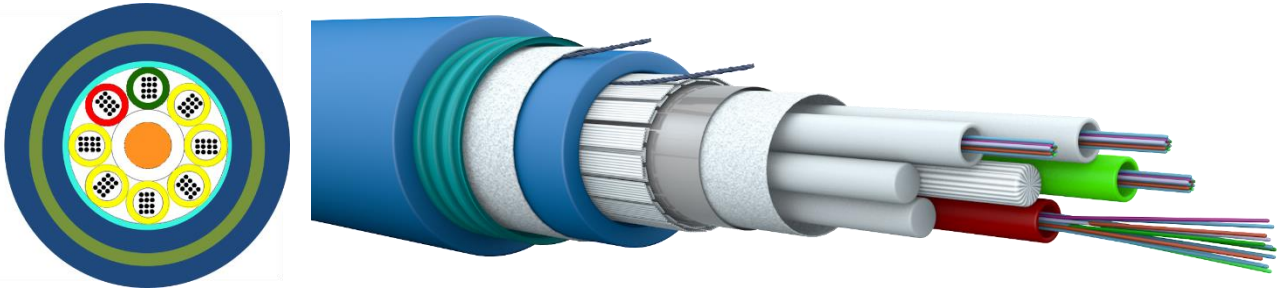


Firetuf® OFC-LT-CST: Fire Resistant Universal Stranded Loose Tube Cable

Steel tape armoured, fire resistant cable, double LSZH sheathed, up to 144 fibres



Application and Installation

Installation in tunnels and subways where there are requirements for reaction to fire
Difficult installation environments where fire safety is a primary concern
For conditions with risk of severe rodent attacks

Standards

EN 187 000, IEC 60794-3, IEC 60794-3-10, IEC 60794-3-12, ISO 11801-1, EN 50 173-1

Flame Resistance

| | |
|--|--|
| IEC 60331-25 (90) | Fire resistance: 90 minutes at 750 °C (No fibre break) |
| EN 50200 PH 90 (for D ≤ 20 mm) | Fire resistance with impact 90 minutes 830 °C (No fibre break) |
| IEC 60331-1 PH 90 (Based on for D > 20 mm) | Fire resistance with impact 90 minutes 830 °C (No fibre break) |
| IEC 60332-1-2 | Single vertical wire test |
| IEC 60332-3-24 = | Vertically-mounted bunched wires and cables |
| IEC 332-3C | |
| IEC 60754-1 | No halogens |
| IEC 60754-2 | No acid matters |
| IEC 61034-2 | No dense smoke |

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Construction

| | | | | | | | | | | | | | |
|-------------------------|--|-------|---------|---------|----------|--------|-------------|----------|----------|---------|-----------|--------|---------|
| Central strength member | FRP rod | | | | | | | | | | | | |
| Loose tube | Ø 2.3 mm special gel filled loose tubes with max. 12 fibres each, for layup refer to B04 | | | | | | | | | | | | |
| Fibre colour code | <table border="0"> <tr> <td>1 Red</td> <td>7 Brown</td> </tr> <tr> <td>2 Green</td> <td>8 Violet</td> </tr> <tr> <td>3 Blue</td> <td>9 Turquoise</td> </tr> <tr> <td>4 Yellow</td> <td>10 Black</td> </tr> <tr> <td>5 White</td> <td>11 Orange</td> </tr> <tr> <td>6 Grey</td> <td>12 Pink</td> </tr> </table> | 1 Red | 7 Brown | 2 Green | 8 Violet | 3 Blue | 9 Turquoise | 4 Yellow | 10 Black | 5 White | 11 Orange | 6 Grey | 12 Pink |
| 1 Red | 7 Brown | | | | | | | | | | | | |
| 2 Green | 8 Violet | | | | | | | | | | | | |
| 3 Blue | 9 Turquoise | | | | | | | | | | | | |
| 4 Yellow | 10 Black | | | | | | | | | | | | |
| 5 White | 11 Orange | | | | | | | | | | | | |
| 6 Grey | 12 Pink | | | | | | | | | | | | |
| Tube colour code | First: Green Middle: Yellow if single mode fibre and white if multi-mode fibres Last: Red | | | | | | | | | | | | |
| Stranding | SZ stranding around the FRP rod | | | | | | | | | | | | |
| Water blocking | The core is water blocked using swellable tape and/or tread | | | | | | | | | | | | |
| Wrapping | Layer of fire blocking tape(s) | | | | | | | | | | | | |
| Strength members | Glass yarns | | | | | | | | | | | | |
| Ripcord | 1 | | | | | | | | | | | | |
| Inner sheath | 1.5 mm blue LSZH compound according to EN 50290-2-27 | | | | | | | | | | | | |
| Ripcord | 1 | | | | | | | | | | | | |
| Armouring | 0.155 mm corrugated steel tape | | | | | | | | | | | | |
| Outer sheath | 1.4 mm blue LSZH compound according to EN 50290-2-27 | | | | | | | | | | | | |
| Sheath marking | DRAKA Firetuf OFC-LT-CST <Fibre count> <Fibre type <material code><factory code><production order no><Meter mark> | | | | | | | | | | | | |

Physical Properties

| Attribute | IEC 60794-1-21/22 Method | Limits | | | | | | |
|---|--------------------------|--|----------|----------|----------|------|------|------------------|
| | | 24 | 36 | 48 | 60 | 72 | 96 | 144 |
| Fibre count | - | 24 | 36 | 48 | 60 | 72 | 96 | 144 |
| Design (tube x fibre + filler) | - | 2x12 +4F | 3x12 +3F | 4x12 +2F | 5x12 +1F | 6x12 | 8x12 | 12x12 |
| Loose Tube / Filler - Ø | - | 2.3 mm | | | | | | |
| Nominal diameter [mm] | - | 18.4 | | | | | 19.7 | 22.5 |
| Nominal weight [kg/km] | - | 385 | | | | | 438 | 568 |
| Short term tensile strength (some days) [N] | E1 | 2700 N ($\Delta l/l$ fibre $\leq 0.33\%$, $\Delta\alpha$ reversible) | | | | | | |
| Permanent tensile strength [N] | E1 | 900 N (no fiber strain, $\Delta\alpha \leq 0.05$ dB) | | | | | | |
| Crush (compressive strength) [N/100 mm] | E3 | 4000N ($\Delta\alpha$ reversible) | | | | | | |
| Impact [J] | E4 | 10 Nm ($\Delta\alpha \leq 0.05$ dB, after the test) | | | | | | |
| Repeated bending | E6 | R= 20 x cable Ø, 100N, 10 cycles ($\Delta\alpha \leq 0.05$ dB, after the test) | | | | | | |
| Torsion | E7 | 100 N, -+ 180° 5 cycles ($\Delta\alpha \leq 0.05$ dB, after the test) | | | | | | |
| Kink | E10 | The cable do not form a kink when a loop is drawn together to a diameter 20 times the cable nominal diameter | | | | | | |
| Minimum bending radius without tension[mm] | E11 | 15 x cable diameter | | | | | | |
| Minimum bending radius with tension[mm] | | 20 x cable diameter | | | | | | |
| Temperature range | F1 | Transport and storage | | | | | | -40 °C to +80 °C |
| | | Installation | | | | | | 0 °C to +50 °C |
| | | Operation | | | | | | -30 °C to +70 °C |
| Water penetration | F5B | No water on free end (core only) | | | | | | |

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***) Values for multi-mode fibres, all optical measurements performed at 850 nm or 1300 nm. 0.10 dB /km or 0.10 dB (tensile and crush test will not be performed for MM fibres). Please note that attenuations will be measured at only 1310 nm and 1550 nm for single mode fibre cables.

Product Codes

| Product code | Product description | Fibre count | Fibre type | Fibre data sheet |
|--------------|------------------------------------|-------------|------------------------------|------------------|
| | FIRETUF OFC-LT-CST 24 G.652.D OS2 | 24 | ESMF single mode G.652.D OS2 | C06 |
| | FIRETUF OFC-LT-CST 36 G.652.D OS2 | 36 | ESMF single mode G.652.D OS2 | C06 |
| | FIRETUF OFC-LT-CST 48 G.652.D OS2 | 48 | ESMF single mode G.652.D OS2 | C06 |
| | FIRETUF OFC-LT-CST 72 G.652.D OS2 | 72 | ESMF single mode G.652.D OS2 | C06 |
| | FIRETUF OFC-LT-CST 96 G.652.D OS2 | 96 | ESMF single mode G.652.D OS2 | C06 |
| | FIRETUF OFC-LT-CST 144 G.652.D OS2 | 144 | ESMF single mode G.652.D OS2 | C06 |