

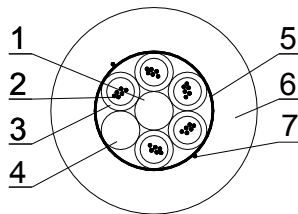
Z-XOTKtsd 12 - 192 Optical Fibre

Spec. No. 2557/1/6/3 MB

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Type: outdoor, fully dielectric



Cable construction:

1. Central element, non-metallic
2. Optical fibres
3. Loose tube
4. Filler
5. Waterblocking yarn
6. Outer sheath
7. Ripcord

| CONSTRUCTION | | | | |
|---|--|--------------------------|--|---------|
| Element | Type | Material | Dimensions | |
| Fibres | ITU-T G.652D , ITU-T G.657A or according to the attached specifications | | | |
| Identification of fibres | Comply to IEC EN 60304 : Red; Green; Blue; White; Violet; Orange; Grey; Yellow; Brown; Pink; Black; Turquoise fibres above 12 in tube: Red; Green; Blue; White; Violet; Orange; Grey; Yellow; Brown; Pink; Natural; Turquoise with black ring | | | |
| Identification of tubes/elements | for each of the layers: First tube - Red, second tube - Green, other tube - natural, filler (when needed) - black | | | |
| Central support member | straight rod | Fibre Reinforced Plastic | ϕ 1.8 mm for 12, 24, 48, 72 fibres ϕ 2.3 mm for 96 and 144 fibres ϕ 3.0 mm for 192 fibres | |
| Secondary coating | loose tube - thermoplastic material 12 or 24 fibres | PBT | ϕ 1.8 mm for 12, 24, 48, 72 fibres 250 μ m ϕ 2.2 mm for 96 and 144 fibres 250 μ m ϕ 1.8 mm for 192 fibres 200 μ m | |
| Filling of the tube | gel | tixotropic gel | | |
| Interstitial waterblocking | dry sealed | swelling yarn | | |
| Outer sheath | black | HDPE | Thickness for 12, 24, 48, 72 fibres: | |
| | | | minimum spot | 0.40 mm |
| | | | average | 0.55 mm |
| | | | Thickness for 96 and 144 fibres: | |
| | | | minimum spot | 0.45 mm |
| | | | average | 0.60 mm |
| | | | Thickness for 192 fibres: | |
| | | | minimum spot | 0.55 mm |
| | | | average | 0.70 mm |
| Attenuation @1310 nm | \leq 0.36 dB/km | | | |
| Attenuation @1550 nm | \leq 0.23 dB/km | | | |
| Marking/Printing: | TF Kable 1 cavo ottico Z-XOTKtsd 24 J (2x12) INF-ING-ST-007-18 4.0 year of production (or according to the agreement). Length marking every meter | | | |
| Standard delivery lengths | 4200 \pm 100 m on wooden drums | | | |

*) Max attenuation for SMF in cable - other parameters of the fibre according to the attached specifications

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PARAMETERS

| No. of fibres in a cable | Outer diameter of tube [mm] | No. of elements in a cable (tubes/filers) | Cable dimensions | | Mechanical properties | | | |
|--------------------------|-----------------------------|---|---------------------|----------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| | | | Outer diameter [mm] | Cable weight [kg/km] | Max. tensile load [N] | | Min. bending radius [mm] | |
| | | | | | Dynamic (during installation) | Static (during the operation) | Dynamic (during installation) | Static (during the operation) |
| 12 (1x12 250µm) | 1.8 | 1T + 5F | 6.5 | 35 | 1000 | 500 | 15 x outer diameter | 20 x outer diameter |
| 24 (2x12 250µm) | 1.8 | 2T + 4F | 6.5 | 35 | 1000 | 500 | 15 x outer diameter | 20 x outer diameter |
| 48 (4x12 250µm) | 1.8 | 4T + 2F | 6.5 | 35 | 1000 | 500 | 15 x outer diameter | 20 x outer diameter |
| 72 (6x12 250µm) | 1.8 | 6T | 6.5 | 35 | 1000 | 500 | 15 x outer diameter | 20 x outer diameter |
| 96 (4x24 250µm) | 2.2 | 4T + 2F | 8.0 | 52 | 1500 | 750 | 15 x outer diameter | 20 x outer diameter |
| 144 (6x24 250µm) | 2.2 | 6T | 8.0 | 52 | 1500 | 750 | 15 x outer diameter | 20 x outer diameter |
| 192 (8x24 200µm) | 1.8 | 8T | 8.0 | 58 | 1500 | 750 | 15 x outer diameter | 20 x outer diameter |

ADDITIONAL MECHANICAL PROPERTIES

| Test | Standard | Value | Acceptance criteria |
|------------------|------------------|--|--|
| Crush | IEC 60794-1-2-E3 | 1000 N; t =15 min | $\Delta\alpha \leq 0.05$ dB, no damage |
| Impact | IEC 60794-1-2-E4 | 3 Nm, 3 impacts | $\Delta\alpha \leq 0.05$ dB after the test |
| Repeated bending | IEC 60794-1-2-E6 | R=20xD; F=100 N 100 cycles, 90 °, 15 cycles/min | $\Delta\alpha \leq 0.1$ dB, no damage |
| Torsion | IEC 60794-1-2-E7 | 100 N, 5 cycles, 360 | $\Delta\alpha \leq 0.05$ dB, no damage |

ENVIRONMENTAL SPECIFICATIONS

| | | |
|-------------------|-------------------|---|
| Water penetration | IEC 60794-1-2-F5B | sample 1 m, water head 1 m, 24 hours |
| Temperature range | | - transport/storage -40/+70 °C - installation -15/+60 °C - operation -30/+70 °C |

FEATURES

- fully dielectric
- resistant to electromagnetic interferences
- secured from longitudinal water penetration
- resistant to abrasion, UV and stress corrosion

APPLICATIONS

Cable is designated for a long distance transmission of digital and analogue signals within the whole optical bandwidth used in wide and local telecom networks of any spatial configuration. Suitable for use in primary and secondary cable ducts or in the proximity to HV lines.

TELE-FONIKA Kable S.A.

www.tfkable.com

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