

OPTICAL FIBRE CABLES FOR DUCTS - FvP SHEATH



Optical fibre



Water blocked



Uv resistant



Dielectric



ROHS Compliant

STANDARDS

Construction: IEC 60794-3

Optical fibre: ITU-T G.652D and EN 60793-2 - Class B 50 B 1.3 (others on request)

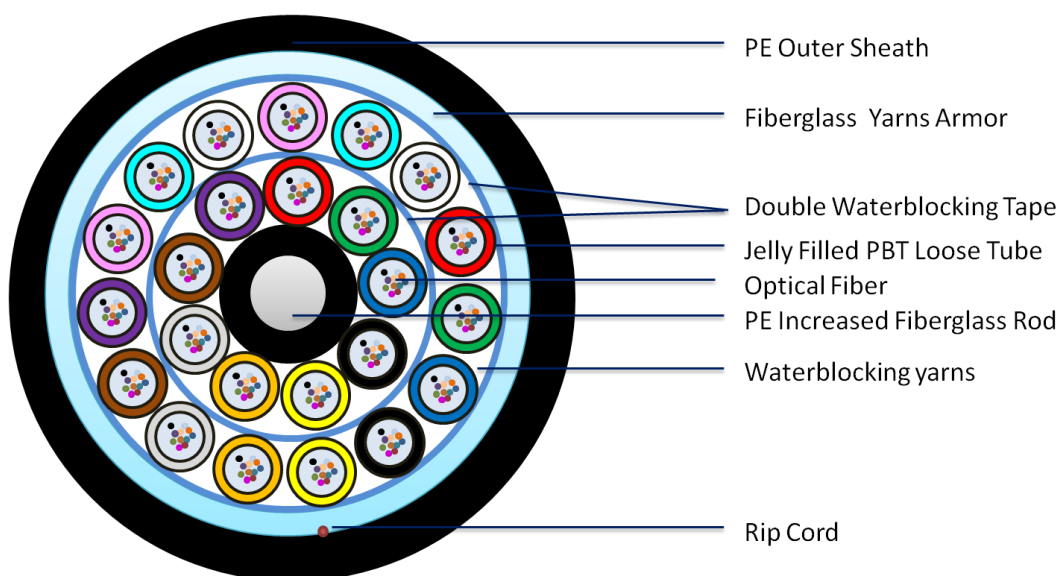
Test method : IEC 60794-1-2

DESCRIPTION AND APPLICATION

Loose tube optical fibre cables. PE sheath with a reinforcement of fibre glass yarns. For installation in ducts by pulling or blowing with maximum tensile strengths of 2 x linear weight. These cables are designed for medium or long distance telecommunications networks with single mode fibre optic type ITU-T G 652D (EN 60793-2 - Class B 50 B 1.3).

CONSTRUCTION

- **Central element:** Fibre-glass reinforced plastic element.
- **Loose tubes:** 2.3 mm gel filled PBT loose tubes with up to 12 single mode ITU-T 652D fibres each. Colour coding of tubes and fibres according to tables 1 and 2.
- **Core formation:** Loose tubes stranded in SZ. Sweallable yarns and one tape over each layer to avoid water penetration and make the cable waterproof.
- **Reinforcement:** Fibre glass (optionally aramid yarns) as reinforcing element.
- **Outer sheath:** Black PE, UV resistant.
- **Sheath marking:** The cables will be marked with the following information:
 - CABLESCOM / Year / Nº fibres / fibre type / sheath / length marking
 - Other marks are available upon request



All drawings, designs, specifications and particulars of weights, dimensions, etc. in this documentation are only indicative and must not be considered contractual.

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OPTICAL FIBRE CHARACTERISTICS

The parameters of the optical fibre used in these cables meet the ITU-T G.652D and EN 60793-2 - Class B 50 B 1.3.

See our fibre product for the characteristics of the fibre.

Note: On request they can be incorporated other types of single mode or multimode fibres.

Optical transmission characteristics of cabled fibre :

Attenuation coefficient:

Average / Maximum at 1310 nm: 0,36 / 0,40 dB/km

Average / Maximum at 1550 nm: 0,22 / 0,30 dB/km

PMD $\leq 0,20$ ps/km^{1/2}

Cut-off wavelength (λ_{cc}) ≤ 1260 nm

TABLE 1: LOOSE TUBE AND OPTICAL FIBRE COLOUR CODE

Fibre no.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Tube no.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	Red	Green	Blue	Black	Yellow	Orange	Grey	Brown	Violet	Pink	Aqua	White
Tube no.	13	14	15	16	17	18	19	20	21	22	23	24
Colour	Red	Green	Blue	Black	Yellow	Orange	Grey	Brown	Violet	Pink	Aqua	White

MECHANICAL CHARACTERISTICS

	Specification	Test conditions
Maximum tensile strength	IEC 60794-1-2 E1	3.000 N
Impact resistance ($\Delta\alpha$ reversible)	IEC 60794-1-2 E4	5 J, $r_{\text{impact}} = 300$ mm
Crush resistance ($\Delta\alpha$ reversible)	IEC 60794-1-2 E3	150 daN/cm
Torsion test ($\Delta\alpha$ reversible)	IEC 60794-1-2 E27	5 N, $\pm 180^\circ$, 3 cycles
Min. Static Bending Radius ($\Delta\alpha$ reversible)	IEC 60794-1-2 E11B	D= 20 x $\varnothing$ cable, 5 cycles
Temperature cycling	IEC 60794-1-2 F1	-30° C / +70° C
Water penetration	IEC 60794-1-2 F5C	LP _{water} ≤ 3 m (1 hour)

CONSTRUCTION, DIMENSIONS AND WEIGHTS

Code	No. fibres	Fibres per tube	Tubes No.	Fillers No.	Diameter (mm)	Weight (kg/km)
EE2783F00028800N	288	12	24	0	17,9	240

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