

STANDARDS

S68 cables FO-R, version 26, date 2019_05_17

DESCRIPTION AND APPLICATION

Outdoor fibre optic cable made up of 36 fibres. The cable is totally dielectric, waterproof and with «Loose tube» structure, then is protected by a double polyethylene sheath, armoured with reinforcing dielectric elements, fiber-glass tape and several layers of aramid yarns as traction resistant elements.

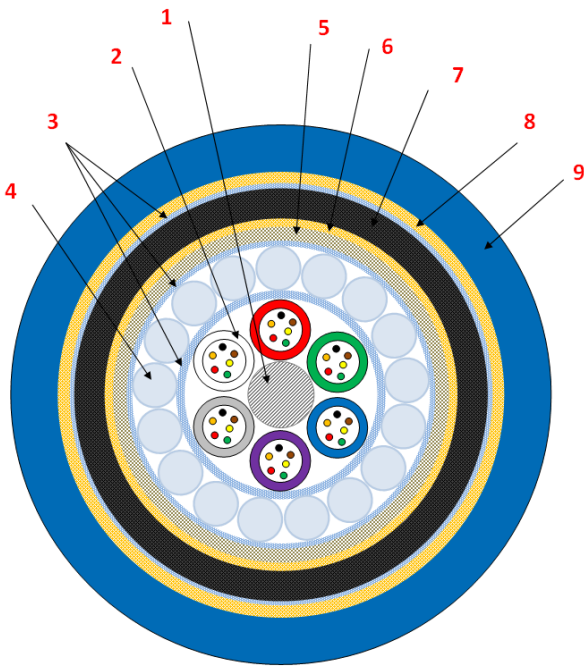
Cable designed for telecommunication connections in medium or long-distance. This cable is available with two types of optic fibres: single-mode according to ITU-T G 652D or multimode 50/125 OM3.

CONSTRUCTION

- (1) Central element:** Fiber-glass reinforced plastic central element.
- (2) Tubes:** PBTP «Loose tubes» filled with thixotropic compound. Modules-Tubes with 6 fibres optics in accordance with Table 1.
- Formation:** Loose tubes stranded in SZ around central element.
- (3) Water blocking elements:** Swellable yarns and tapes to avoid water penetration and to make the cable longitudinally waterproof.
- (4,5 and6) Mechanical reinforcement:** reinforcing elements arranged helically: armour (4), fibre-glass tape (5) as shotgun protection and aramid yarns layer (6).
- (7) Inner sheath:** High density polyethylene (HDPE), black colour.
- (8) Mechanical reinforcement:** additional aramid yarns as traction resistant.
- (9) Outer sheath:** High density polyethylene (HDPE), blue coloured:
(PMS Colour: 293 – 100%), UV resistant.

Sheath marking: The cable sheath will be marked with the following information:

- INFRABEL – OPTICAL FIBER S / Manufacturing year / 36*Fibre type (G652.D) / Length markings – CCSA – Manufacturing order.
- Other sheath marks available upon request



OPTICAL FIBRE CHARACTERISTICS

Single-mode Optical fibres are according to ITU-T G.652D recommendations and EN 60793-2 - Class B 50 B 1.3

See our fibre product sheet for the characteristics of the fibre.

Optical transmission characteristics of cabled fibre :

Attenuation coefficient:

Average / Maximum at 1310 nm: 0,36/0,345 dB/km

Average / Maximum at 1550 nm: 0,23/0,215 dB/km

Average / Maximum at 1625 nm: 0,23/0,215 dB/km

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

All drawings, weights and dimensions details, as well as tube and fibre colours in this document are only indicative and must not be considered contractual.

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TITLE
HP_EE6M0CE_i

VERSION
2.0

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TABLE 1: COLOUR CODE

Tube 0 : Red		Tube 1 : Green		Tube 2 : Blue	
Fibre 1	Black	Fibre 7	Black	Fibre 13	
Fibre 2	Brown	Fibre 8	Brown + 1 ring	Fibre 14	Brown + 2 rings
Fibre 3	Red	Fibre 9	Red + 1 ring	Fibre 15	Red + 2 rings
Fibre 4	Orange	Fibre 10	Orange + 1 ring	Fibre 16	Orange + 2 rings
Fibre 5	Yellow	Fibre 11	Yellow + 1 ring	Fibre 17	Yellow + 2 rings
Fibre 6	Green	Fibre 12	Green + 1 ring	Fibre 18	Green + 2 rings
Fibres per tube	6	Fibres per tube	6	Fibres per tube	6

Tube 3 : Violet		Tube 4 : Grey		Tube 5 : White	
Fibre 19	Black	Fibre 25	Black	Fibre 31	Black
Fibre 20	Brown + 3 rings	Fibre 26	Brown + 4 rings	Fibre 32	Brown + 5 rings
Fibre 21	Red + 3 rings	Fibre 27	Red + 4 rings	Fibre 33	Red + 5 rings
Fibre 22	Orange + 3 rings	Fibre 28	Orange + 4 rings	Fibre 34	Orange + 5 rings
Fibre 23	Yellow + 3 rings	Fibre 29	Yellow + 4 rings	Fibre 35	Yellow + 5 rings
Fibre 24	Green + 3 rings	Fibre 30	Green + 4 rings	Fibre 36	Green + 5 rings
Fibres per tube	6	Fibres per tube	6	Fibres per tube	6

PRODUCT INFORMATION

EE6M0CE00003600N				
WEIGHT (kg/km)	310			
DIAMETER (mm)	19.5			
TENSILE STRENGTH (N) EN 60794-1-2, Met. E1	7000 N No tension in fibres			
IMPACT RESISTANCE EN 60794-1-2, Met. E4	4.5 J ; r = 12.5 mm, T° 20°C $\Delta\alpha < 0.1$ db/km, Reversible			
CRUSH RESISTANCE EN 60794-1-2, Met. E3	500 daN/dm $\Delta\alpha < 0.1$ db/km, Reversible			
BENDING EN 60794-1-2, Met. E10	$R_{min} = 20 \times \phi_{cable}$			
TEMPERATURE CYCLING EN 60794-1-2, Met. F1	-30°C / +70°C $\Delta\alpha < 0.1$ dB/km, Reversible			
WATER PENETRATION EN 60794-1-2, Met. F5C	LP _{water} ≤ 3 m (10 days)			
PRODUCT PRESENTATION	Production Length	Drum	Drum Dimensions	Weight (kg/drum)
	1.000	BA2W000	Ø119x79	388
	2.000	BA4W000	Ø144x91	719
	3.000	BA6W000	Ø169x108	1.105
	4.000	BA9W000	Ø194x112	1.604

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