OUTDOOR µCABLE - PE SHEATH

MICRO FIBRE-OPTIC CABLES TOL_D T/E - ING-INF-ST-007-18 V4



DESCRIPTION AND APPLICATION

Micro optic-fibre cables to be rapidly installed by blowing in micro-ducts Di/De 10/12 mm or 10/14 mm, and Di/De 14/18mm for the 396 optic-fibre cable. High blowing distance due to the excellent friction properties of the outer sheath \approx 1500 m depending on way route. It contains 6, 8 or 11 loose tubes of 12, 24 or 36 fibres each. These cables are used for medium or long distance telecommunications networks and can be designed with single mode type ITU-T G 657A1.

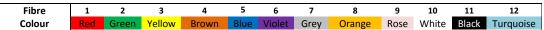
Generally according to INFRATEL specification INF-ING-ST-007-18 V 4.0 of 25/01/2019.

CONSTRUCTION

- 1. Central element: Fibre-glass reinforced plastic rod.
- 2. Loose Tubes: PBT loose tubes filled with thixotropic compound. Optional fillers depending on the cable structure. Colour coding according to tables 1 and 2.
- 3. Core formation: Tubes are stranded in SZ.
- 4. Core wrapping: Water-blocking tape and/or yarns to avoid water propagation.
- 5. Outer sheath: Grey (RAL 7001) HDPE, UV resistant outer jacket.
- 6. Sheath marking:

"''cavo ottico" TO ¬X" "NF" "NP" ("N" "tipo fibra") T/"Y" "INFRATEL I "NUM-SPEC" "IQQ" Nome del costruttore "AAAA" "nnnnnnn" "CODFO" *meaning of each field according to point 9 in the technical specification

LOOSE TUBE AND OPTICAL FIBRE COLOUR CODE



*Fibers from 13 to 24 will be marked with one black ring each 50 mm

*Fibers from 25 to 36 will be marked with two black rings each 50 mm.
* In case of the black fiber, this could be natural fiber with one or two black rings.

Other

White

PRODUCT INFORMATION

CABLE FIBRES	12	24	48	72	96	144	192	288	396
FIBRE	G.657.A1 250 μm						G.657.A1 200 μm		
Nominal OD (mm)(±0.3mm)	6.2	6.2	6.2	6.2	7.5	7.5	7.7	8.2	10.7
Nominal weight (kg/km)	35	35	37	37	51	57	63	68	106
Tubes Num.	1	2	4	6	4	6	8	8	11
Passive Elements Num.	5	4	2	0	2	0	0	0	0
Fibres Number per Tube	12	12	12	12	24	24	24	36	36
MAX. TENSILE STRENGTH (N) UNE-EN 60794-1-2, Met. E1 Δεf \leq 0,5%, $\Delta \alpha \leq$ 0,1 dB/km after test	600				1000				
IMPACT RESISTANCE UNE-EN 60794-1-2, Met. E4	3 J, 300 mm ; $\Delta \alpha$ reversible ($\Delta \alpha \le 0.1$ dB/km after test)								
CRUSH RESISTANCE (N/cm) UNE-EN 60794-1-2, Met. E3	100 ; $\Delta\alpha$ reversible ($\Delta\alpha \le 0.1$ dB/km after test)								
REPEATED BENDING UNE-EN 60794-1-2, Met. E6	25 Cycles: 20 x \emptyset cable; $\Delta \alpha$ reversible ($\Delta \alpha \le 0,1$ dB/km after test)								
TORSION UNE-EN 60794-1-2, Met. E7	2m cable ; 100N ; 5 cycles ; $\pm 180^{\circ}$; $\Delta \alpha$ reversible ($\Delta \alpha \leq 0.1$ dB/km after test)								
BENDING UNE-EN 60794-1-2, Met. 11	R=20Xø cable; 5 turns; 3 cycles; $\Delta \alpha$ reversible ($\Delta \alpha \leq 0.1$ dB/km after test)								
TEMPERATURE CYCLING UNE-EN 60794-1-2, Met. F1	-30°C / 60°C; Δα < 0.1 dB/km								
WATER PENETRATION UNE-EN 60794-1-2, Met. F5B	LP _{water} ≤ 3 m (8 hours); <i>No leakage</i>								

TITLE

HP_EE2M81B_i

Optical fibre characteristics: See Annexes – Optical fibre characteristics.

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.







Certified Company ISO 9001 - ISO 14001

Tube Colour

1 Red
2 Green

^{*}Filler rods, if they are necessary, in black colour