EE4102S- Ed1

FIBRE OPTIC DOUBLE PE SHEATHED ARMOURED CABLE

Optical fibre | *UV resistant* | Mechanical resistance | Water blocked | *Rodent resistant* | *ROHS compliant*

STANDARDS

Cable construction: DGT standard
Fibres: ITU-T G652 D.

DESCRIPTION AND APPLICATION

Loose tube single mode optical fibre cables with a double PE sheath and armoured with a corrugated steel tape for mechanical and rodent's protection.
These cables can be installed in underground ducts or directly buried.

CONSTRUCTION

- ***Central reinforcing element***: Dielectric fibreglass (FRP).
- ***Loose tubes***: PBT loose tubes filled with thixotropic compound and containing single mode optical fibres according to ITU-T G.652 D. Colour coding of tubes and fibres according to tables 1 and 2.
- ***Core formation***: Loose tubes stranded in SZ. Sweallable yarns and tapes to avoid water penetration and make the cable waterproof.
- ***Inner sheath:*** polyethylene.
- ***Armouring***: Corrugated copolymer coated steel tape longitudinally applied with overlap.
- ***Outer jacket***: Black UV resistant polyethylene.
- ***Sheath marking*** : The cable sheath will be marked with white ink at regular intervals with the following information :
    - *CABLESCOM / year / Number of fibres MN/ PSP / batch number +length markings*
    - *Other sheath marks available upon request*

OPTICAL FIBRE CHARACTERISTICS

The parameters of the optical fibres are compliant with the ITU-T G.652D recommendation.
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 / 0,38 dB/km
Average / maximum at 1550 nm: 0,22 / 0,25 dB/km

PMD ≤ 0,20 ps/km$^{1/2}$
PMD link ≤ 0,10 ps/km$^{1/2}$
Cut-off wavelength (λ_{cc}) ≤ 1260nm

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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CABLESCOM ZARAGOZA

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TABLE 1: LOOSE TUBES COLOUR CODE

	Fibres in cable							
Tube	**2**	**4**	**8**	**16**	**20**	**24**	**32**	**48**
1	White	White	White	White	White	White	White	White
2	Black	Black	Red	White	White	White	White	White
3	Black	Black	Black	Red	White	Red	Red	White
4	Black	Black	Black	Green	Red	Green	Green	White
5	Black	Black	Black	Black	Green	Black	Black	Red
6	Black	Black	Black	Black	Black	Black	Black	Green
Fibres per tube	2	4	4	4	4	6	8	8

**Note: The black tubes are fillers*

TABLE 2: OPTICAL FIBERS COLOUR CODE

Fiber	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Color	Green	Red	Blue	Yellow	Grey	Violet	Brown	Orange
Abrev.	Gr	Rd	Bl	Ye	Gy	Vi	Br	Or

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MECHANICAL CHARACTERISTICS	Method	Test Conditions
Tensile strength (no fibre elongation)	IEC 60794-1-2 Met E1A	2700 N
Crush resistance (Δα<0.05 dB)	IEC 60794-1-2 Met E3	3000 N
Curvature (Δα<0.05 dB)	IEC 60794-1-2 Met E11	r = 20 x cable diameter
Impact resistance (Δα<0.05 dB)	IEC 60794-1-2 Met E4	5J/striking radius 10mm
Torsion Test (steel tape does not open)	IEC 60794-1-2 Met E7	5 turns ± 180º / 50 N
Water penetration	IEC 60794-1-2 Met F5B	L_{Pwater} ≤ 3 m (1 day)
Temperature cycling (operation, Δα<0.05 dB)	IEC 60794-1-2 Met F1	-25ºC / 75ºC

DIMENSIONS AND WEIGHT

Code	# fibres	Diameter (mm)	Nominal Weight (kg/km)
EE4102S00000200N	2	15,5	200
EE4102S00000400N	4	15,5	200
EE4102S00000800N	8	15,5	200
EE4102S00001600N	16	15,5	200
EE4102S00002000N	20	15,5	200
EE4102S00002400N	24	15,5	200
EE4102S00003200N	32	15,5	200
EE4102S00004800N	48	15,5	200

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