OUTDOOR - PKP Sheath

MULTITUBE FIBRE-OPTIC CABLES

DESCRIPTION AND APPLICATION

8 to 256 single mode optical fibers cables, totally dielectric, with PKP sheath for installation in outside plant underground conduits both as overhead lines.

CONSTRUCTION

1. Loose Tubes: PBT loose tubes filled up to 8 optical fibres with thixotropic compound and containing single mode optical.
2. Optical fibres: single mode optical fibres according to ITU-T G.652 D.
3. Central Element: Fibre-glass reinforced plastic central element.
4. Core formation: Loose tubes stranded in SZ. Swellable yarns and tapes to avoid water penetration and make the cable waterproof.
5. Inner sheath: Polyethylene.
6. Mechanical reinforcement: Aramid yarns as traction resistant
7. Outer jacket: Black polyethylene sheath.

Sheath marking: The cables will be marked with the following information

- *CABLESCOM / Year / Fibre Num: / Fibre Type / Sheath Type / Length markings*
- *Other marks are available on request*

OPTICAL FIBRE CHARACTERISTICS

The parameters of the optical fibres used in these cables meet the ITU-T recommendation G 652D. See our fibre product sheet for the characteristics of the fibre.

Optical transmission characteristics of cabled fibre:

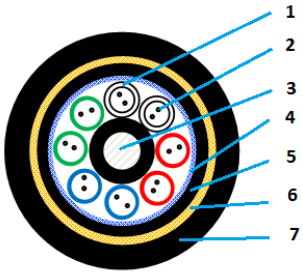
Attenuation coefficient:

Average/Maximum at 1310 nm: 0.36/0.37 dB/km
Average/Maximum at 1550 nm: 0.22/0.24 dB/km

PMD link ≤ 0.20 ps/km1/2

PMD Q ≤ 0.02 ps/km1/2

Cut-off wavelength (λcc) ≤ 1260nm



LOOSE TUBES COLOUR CODE

		Fibres in the cable			
	# Fibres	32	64	128	256
1st Layer	1	White	White	White	White
	2	White	White	White	Red
	3	Red	Red	Red	Black
	4	Red	Red	Red	Blue
	5	Blue	Blue	Blue	Green
	6	Blue	Blue	Blue	Black
	7	Green	Green	Green	
	8	Green	Green	Green	
2nd Layer	1				White
	2				White
	3				White
	4				Red
	5				Red
	6				Red
	7				Blue
	8				Blue
	9				Blue
	10				Green
	11				Green
	12				Green
	Fibres/Tube	8	8	16	16

** Note: Black Tubes are passive elements.*

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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Certified Company **ISO 9001 – ISO 14001**

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MULTITUBE FIBRE-OPTIC CABLES

OPTICAL FIBRES COLOUR CODE

Fibre	1	2	3	4	5	6	7	8	9	10	11	12
Colour	Green	Red	Blue	Yellow	Grey	Violet	Brown	Orange	White	Black	Pink	Turquoise
Abbrev.	Gr	Rd	Bl	Ye	Gy	Vi	Br	Or	Wh	Bl	Tq	Rs
Fibre	**13**	**14**	**15**	**16**								
Colour	White*	Yellow*	Orange*	Pink*								
Abbrev.	W	Ye	Or	P								

(*): Fibres from 13 to 16 are marked with black rings separated up to 50 mm apart.

PRODUCT INFORMATION

Code	Fibres Num.	Nominal OD (kg/km)	Nominal Weight (mm)
EE6102B0000320WN	32	14.4	172
EE6102B0000640WN	64	15.4	189
EE6102B0001280WN	128	16.4	196
EE6102B0002560WN	256	20.5	298

Mechanical Characteristics	Standards	Test Conditions
Tensile Strength (Δεf=0.0%, Δα<0.05 dB)	UNE-EN 60794-1-2, Met. E1	3000 N
Impact Resistaace (Δα≤0.05 dB)	UNE-EN 60794-1-2, Met. E4	5 J, 10 mm, 3 impacts
Curvature	UNE-EN 60794-1-2, Met. 11	r = 15 x cable OD, r ≥ 250 mm
Repeated bending	UNE-EN 60794-1-2, Met. E6	r = 15 x cable OD, 100 cycles
Temperature cycling (operation, Δα≤0.05 dB)	UNE-EN 60794-1-2, Met. F1	-25ºC / 70ºC
Water penetration	UNE-EN 60794-1-2, Met.F5C	LP_{water} ≤ 1 m (14 days)
Crush Resistance (Δα≤0.05 dB)	UNE-EN 60794-1-2, Met. E3	3000 N

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