OUTDOOR - PKESP Sheath

MULTITUBE FIBRE-OPTIC CABLES

DESCRIPTION AND APPLICATION

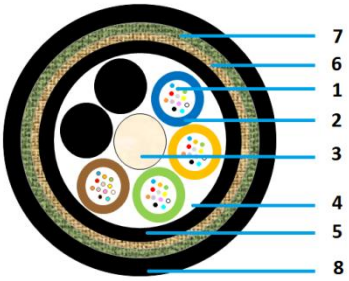
"Loose Tube" type fibre-optic cables with a double polyethylene sheath, aramid yarns and armoured with a steel tape for mechanical and rodent protection. This cable can be installed in underground ducts or directly buried. For use in medium or long distance networks.

CONSTRUCTION

1. Jelly-filled PBT loose tubes.
2. Optical fibres according to ITU-T G.652 D.
3. Dielectric fibreglass-reinforced central element.
4. Water-blocking yarns and/or tapes.
5. Polyethylene inner sheath.
6. Aramid yarns.
7. Corrugated copolymer-coated steel tape longitudinally applied with overlap.
8. Polyethylene outer sheath UV resistant.

Markings:

CABLESCOM / Year / Number of fibres / Type of fibre / Type of sheath / Length markings



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: 0.35/0.37 dB/km
Average/Maximum at 1550 nm: 0.21/0.30 dB/km

PMD link ≤ 0.20 ps/km1/2

PMD Q ≤ 0.02 ps/km1/2

Cut-off wavelength (λcc) ≤ 1250nm

LOOSE TUBES COLOUR CODE

		Fibres in cable				
	# Tube	16	32	64	96	128
Layer 1	1	White	White	White	White	White
	2	White	Red	White	White	White
	3	Red	Blue	Red	White	Red
	4	Red	Green	Red	Red	Red
	5	Blue	Black	Blue	Red	Blue
	6	Blue	Black	Blue	Red	Blue
	7	Green			Blue	
	8	Green			Blue	
	9				Blue	
	10				Green	
	11				Green	
	12				Green	
Layer 2	1					White
	2					White
	3					Red
	4					Red
	5					Blue
	6					Blue
	7					Green
	8					Green
	9					Grey
	10					Grey
	11					Black
	12					Black
	Fibres per tube	2	8	5 of 12/ 1 of 4	8	8

** Note: The black tubes are passive elements (no fibre)*

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TITLE	EDITION	APPROVED BY	DATE
HP_EE5102I_i	0	E. Huang	2017-11-20

OPTICAL FIBRES COLOUR CODE

Fibre	1	2	3	4	5	6	7	8	9	10	11	12
Colour	Red	Green	Blue	Yellow	Violet	Orange	Brown	Grey	Black	Pink	Turquoise	White
Abrev.	Rd	Gr	Bl	Ye	Vi	Or	Br	Gy	B	P	Tq	Wh

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

Mechanical characteristics	*Standard*	*Test conditions*
Tensile Strength (No fibre elongation)	UNE-EN 60794-1-2, Met. E1	3200 N
Maximum Tensile Load (No fibre break)	UNE-EN 60794-1-2, Met. E1	6200 N
Maximum cable elongation from 100 to 190 kg	UNE-EN 60794-1-2, Met. E1	0.10 %
Impact resistance (Δα<0.05 dB)	UNE-EN 60794-1-2, Met. E4	5 J, 100 impacts
Curvature(Δα<0.05 dB)	UNE-EN 60794-1-2, Met. 11	R=15 x Ø cable
Temperature Cycling (operation, Δα<0.05 dB)	UNE-EN 60794-1-2, Met. F1	-20ºC / 70ºC
Water penetration	UNE-EN 60794-1-2, Met.F5C	LP_{water} ≤ 1 m (14 days)
Crush (Δα<0.05 dB)	UNE-EN 60794-1-2, Met. E3	2600 N

PRODUCT INFORMATION

Code	*Num. Fibres*	*Nominal weight (kg/km)*	*Nominal OD (mm)*
EE5102I0000160WN	**16**	210	15.0
EE5102I0000320WN	**32**	220	16.2
EE5102I0000640WN	**64**	230	16.2
EE5102I0000960WN	**96**	360	21.3
EE5102I0001280WN	**128**	390	22.2

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