

OUTDOOR - PE Sheath

MICRO BLOWN (REDUCED OD) FIBRE-OPTIC CABLES

DESCRIPTION AND APPLICATION

This cable is designed for installation into a subduct by the use of air blown techniques. These cables are of loose tube construction containing 12 to 144 single-mode fibres within a black sheath.

CONSTRUCTION

1. Jelly-filled PBT loose tubes filled with thixotropic compound. Colour code of tubes and fibres according to tables 1 and 2.
2. Optical fibres.
3. Dielectric fibreglass-reinforced central element.
4. Water-blocking yarns.
5. UV resistant Polyethylene outer sheath.

Markings:

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



OPTICAL FIBRE CHARACTERISTICS

Parameters of optical fibres used in these cables meet the ITU-T recommendation G.652D

Optical transmission characteristics of cabled fibre:

Attenuation coefficient:

Maximum at 1310 nm: 0.34dB/km

Maximum at 1550 nm: 0.22dB/km

$PMD \leq 0.20 \text{ ps/km}^{1/2}$

$PMD \text{ link} \leq 0.10 \text{ ps/km}^{1/2}$

Cut-off wavelength (λ_{cc}) $\leq 1260\text{nm}$

LOOSE TUBE AND OPTICAL FIBRE COLOUR CODE

Fibre/Tube	1	2	3	4	5	6	7	8	9	10	11	12
Colour	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Turquoise
Abrev.	Bl	Or	G	Br	Gr	W	R	Bk	Y	Vi	P	Tq

*Note: Fillers are natural coloured

PRODUCT INFORMATION

Code	Num. Tubes	Num. Fillers	Loose Tube OD (mm)	Central strength member OD (mm)	Sheath thickness (mm)	FO per Tube	Num. Fibres	Nominal weight (kg/km)	Nominal OD (mm)
EE2B01A0000121WN	1	5	1.70	1.80	0.5	12	12	30	6.2
EE2B01A0000241WN	2	4	1.70	1.80	0.5	12	24	30	6.2
EE2B01A0000361WN	3	3	1.70	1.80	0.5	12	36	30	6.2
EE2B01A0000481WN	4	2	1.70	1.80	0.5	12	48	30	6.2
EE2B01A0000960WN	8	0	1.70	2.90	0.5	12	96	40	7.4

Mechanical characteristics	Standard	Test conditions
Tensile Strength ($\epsilon_f < 0.33\%$, $\Delta\alpha < 0.10 \text{ dB}$)	UNE-EN 60794-1-2, Met. E1	600 N (12 to 48 FO) 1200 N (96 FO)
Impact resistance ($\Delta\alpha < 0.10 \text{ dB}$)	UNE-EN 60794-1-2, Met. E4	1 J, r= 300 mm, 3 impacts
Bending ($\Delta\alpha < 0.1 \text{ dB}$)	UNE-EN 60794-1-2, Met. 6	r=20 x Ø cable, 10 cycles
Temperature cycling ($\Delta\alpha < 0.1 \text{ dB}$)	UNE-EN 60794-1-2, Met. F1	-20°C / 65°C
Water penetration	UNE-EN 60794-1-2, Met. F5B	LP _{water} ≤ 3 m (24 hours)
Crush resistance ($\Delta\alpha < 0.10 \text{ dB}$)	UNE-EN 60794-1-2, Met. E3	1000 N

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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