

LOOSE TUBE MICRO BLOWN FIBRE CABLE



Optical fibre



UV resistant



Water blocked

ROHS
compliant

STANDARDS

Construction: IEC 60794

Optical fibre: ITU-T G.652D and EN 60793-2 - Class B 50 B 1.3

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 96 singlemode fibres within a black sheath.

CONSTRUCTION

- **Central reinforcing element:** Dielectric central strength member.
- **Loose tubes:** PBT loose tubes filled with thixotropic compound and containing single mode optical fibres according to ITU-T G.652 D (EN 60793-2 - Class B 50 B 1.3). Colour coding of tubes and fibres according to tables 1 and 2.
- **Core formation:** Loose tubes stranded in SZ. Swellable yarns and tapes to avoid water penetration and make the cable waterproof.
- **Outer jacket:** UV resistant PE colour black.
- **Sheath marking :** The cable sheath will be marked with white ink at regular intervals with the following information :
 - PROPRIETARY / CABLESCOM / Year of fabrication / OPTICAL CABLE / Number of fibres / SMF+ length markings
 - Other marks are available upon customer's request.



OPTICAL FIBRE CHARACTERISTICS

The parameters of the optical fibre used in these cables meet the ITU-T recommendation G.652D and EN 60793-2 - Class B 50 B 1.3.

See our fibre product sheet for the characteristics of the fibre

Optical transmission characteristics of cabled fibre :

Attenuation coefficient:

Maximum at 1310 nm: 0,34 dB/km

Maximum at 1550 nm: 0,22 dB/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}) $\leq 1260 \text{ nm}$

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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LOOSE TUBE MICRO BLOWN FIBRE CABLE

TABLE 1: LOOSE TUBES COLOUR CODE

Tube number	Number of fibres in the cable					
	12	24	36	48	72	96
1	Blue	Blue	Blue	Blue	Blue	Blue
2	Natural	Orange	Orange	Orange	Orange	Orange
3	Natural	Natural	Green	Green	Green	Green
4	Natural	Natural	Natural	Brown	Brown	Brown
5	Natural	Natural	Natural	Natural	Grey	Grey
6	Natural	Natural	Natural	Natural	White	White
7						Red
8						Black
Loose tubes	1	2	3	4	6	8
Fillers	5	4	3	2	0	0
Loose tube diameter (mm)	1.70	1.70	1.70	1.70	1.70	1.70
Central strength member diameter (mm)	1.80	1.80	1.80	1.80	1.80	3.0
Sheath thickness (mm)	0,5	0,5	0,5	0,5	0,5	0,5
Fibres per tube	12	12	12	12	12	12

*Note: Natural tubes are fillers

TABLE 2: OPTICAL FIBERS COLOUR CODE

Fibre	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

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

	Method	Test Conditions
<i>Tensile strength ($\Delta\epsilon_{\text{fibre}} \leq 0,33\%$, $\Delta\alpha < 0,1$ dB)</i>	IEC 60794-1-2 E1A	600 N (12 to 72 fibres) 1200 N (96 fibres)
<i>Crush resistance ($\Delta\alpha < 0,1$ dB)</i>	IEC 60794-1-2 E3	1000 N
<i>Impact resistance ($\Delta\alpha < 0,1$ dB)</i>	IEC 60794-1-2 E4	1 J, 3 impacts, R= 300 mm
<i>Bending ($\Delta\alpha < 0,1$ dB)</i>	IEC 60794-1-2 E11	r = 20 x \varnothing , 10 cycles
<i>Water penetration</i>	IEC 60794-1-2 F5B	L _{pwater} ≤ 3 m (24 h)
<i>Temperature cycling (operation, $\Delta\alpha < 0,1$ dB)</i>	IEC 60794-1-2 F1	-20°C to +65°C

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LOOSE TUBE MICRO BLOWN FIBRE CABLE**DIMENSIONS AND WEIGHT**

Code	Optical fibres	Nominal diameter (mm)	Nominal weight (kg/km)
EE2B01A00001210N	12	6,2	30
EE2B01A00002410N	24	6,2	30
EE2B01A00003610N	36	6,2	30
EE2B01A00004810N	48	6,2	30
EE2B01A00007210N	72	6,2	30
EE2B01A00009600N	96	7,4	40

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