

DESCRIPTION AND APPLICATION

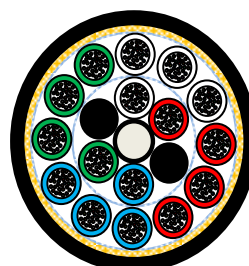
Loose tube single mode optical fibre cable, totally dielectric up to 512 fibres. The tubes are filled with a thixotropic filling compound. Water blocking between the tubes is achieved by swellable dry elements. The core is protected by a polyethylene sheath, KP type. Suitable for installation in ducts.

CONSTRUCTION

1. Loose Tubes: PBT loose tubes filled up to 8 optical fibres with thixotropic compound and containing single mode optical. Colour coding of tubes and fibres according to tables 1 and 2.
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. Mechanical reinforcement: Aramid yarns as traction resistant
6. 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/km^{1/2}

PMD Q ≤ 0.10 ps/km^{1/2}

Cut-off wavelength (λ_{cc}) ≤ 1260 nm

LOOSE TUBES COLOUR CODE

		Fibres in Cable											
		# Fibre	16	24	32	48	64	96	128	144	192	256	512
1st Layer	1	White	White	White	White	White	White	White	White	White	White	White	White
	2	Red	White	White	White	White	White	White	Red	White	White	Red	Red
	3	Black	Red	Red	Red	Red	Red	White	Black	Red	White	Black	Black
	4	Blue	Red	Red	Red	Red	Red	Red	Blue	Red	Red	Blue	Blue
	5	Green	Blue	Blue	Blue	Blue	Blue	Red	Green	Blue	Red	Green	Green
	6	Black	Blue	Blue	Blue	Blue	Blue	Red	Black	Blue	Red	Black	Black
	7			Green			Green	Blue			Blue		
	8			Green			Green	Blue			Blue		
	9							Blue			Blue		
	10							Green			Green		
	11							Green			Green		
	12							Green			Green		
2nd Layer	1								White	White		White	White
	2								White	White		White	White
	3								White	White		White	White
	4								Red	Red		Red	Red
	5								Red	Red		Red	Red
	6								Red	Red		Red	Red
	7								Blue	Blue		Blue	Blue
	8								Blue	Blue		Blue	Blue
	9								Blue	Blue		Blue	Blue
	10								Green	Green		Green	Green
	11								Green	Green		Green	Green
	12								Green	Green		Green	Green
Fibres per tube		4	4	4	8	8	8	8	8	16	16	32	

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

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.

OPTICAL FIBRES COLOUR CODE (FROM 8 TO 256 FO)

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

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

OPTICAL FIBRES COLOUR CODE (512 FO)

Fibre colour code								
Fibre Num.	1	2	3	4	5	6	7	8
Colour	Green	Red	Blue	Yellow	Grey	Violet	Brown	Orange
Fibre Num.	9	10	11	12	13	14	15	16
Colour	Green*	Red*	Blue*	Yellow*	Grey*	Violet*	White*	Orange*
Fibre Num.	17	18	19	20	21	22	23	24
Colour	Green**	Red**	Blue**	Yellow**	Grey**	Violet**	White**	Orange**
Fibre Num.	25	26	27	28	29	30	31	32
Colour	Green***	Red***	Blue***	Yellow***	Grey***	Violet***	White***	Orange***

(*): Fibres from 9 to 16 are marked with a black ring approximately every 50 mm.

(**): Fibres from 17 to 24 are marked with a double black ring approximately every 50 mm.

(* * *): Fibres from 25 to 32 are marked with a triple black ring approximately every 50 mm.

PRODUCT INFORMATION

Code	Num. Fibres	Nominal weight (mm)	Nominal OD (kg/km)
EE6122N000016WWN	16	92	11.2
EE6122N000024WWN	24	94	11.2
EE6122N000032WWN	32	96	11.2
EE6122N000048WWN	48	97	11.2
EE6122N000064WWN	64	114	12.3
EE6122N000128WWN	128	179	15.8
EE6122N000256WWN	256	214	17.3
EE6122N000512WWN	512	282	19.7

Mechanical characteristics	Standard	Test conditions
Tensile strength ($\Delta\epsilon_f=0.05\%$, $\Delta\alpha\leq 0.05$ dB)	EN 187000 Met. 501	3500 N
Impact resistance ($\Delta\alpha\leq 0.05$ dB)	EN 187000 Met. 505	5 J, 10 mm
Curvature ($\Delta\alpha\leq 0.05$ dB)	EN 187000 Met. 513	R=15 x \varnothing cable; r \geq 250 mm
Temperature cycling (operation, $\Delta\alpha\leq 0.05$ dB)	EN 187000 Met. 601	-25°C / 70°C
Water penetration	EN 187000 Met. 605B	LPwater \leq 1 m (14 days)
Crush resistance ($\Delta\alpha\leq 0.05$ dB)	EN 187000 Met. 504	2000 N

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Certified Company ISO 9001 – ISO 14001

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TITLE
HP_EE6122N_e

VERSION
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APPROVED BY
E. Huang

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