

OPTICAL FIBRE CABLES, TYPE PKP, FOR LONG HAUL TELEPHONE NETWORK



Optic fibre



Overhead line cable



UV resistant



Impact Resistant



Dielectric



Water blocked



ROHS Compliant

STANDARDS

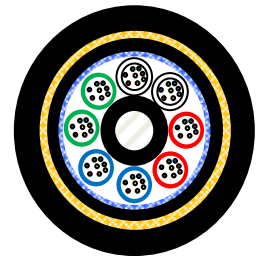
Telefónica specification ERQ.f6.0226 – 1th Edition
Fibre: ITU-T G652D

DESCRIPTION AND APPLICATION

8 to 128 single-mode optical fiber attenuation cables, offering characteristics improved of PMD and networks for use in long-distance transport. These cables are totally dielectric, with PKP sheath for outside plant installation in underground ducts both as overhead lines.

CONSTRUCTION

- **Central Element:** Fiber-glass reinforced plastic central element.
- **Loose Tubes:** PBT loose tubes filled up to 8 optical fibres with thixotropic compound and containing single mode optical fibres according to ITU-T G.652 D. 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.
- **Inner sheath:** Polyethylene.
- **Mechanical reinforcement:** Aramid yarns as traction resistant
- **Outer jacket:** Black polyethylene sheath.
- **Sheath marking:** The cables will be marked with the following information
 - *manufacturer's name (CCSA) / Year manufacture / N° fibre / fibre type / sheath type / TELEFONICA - RTLD / Footage / Manufacturing Order*
 - *Other marks are available on request*



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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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:

Maximum at 1310 nm: 0,34 dB/km

Maximum at 1550 nm: 0,20 dB/km

PMD link $\leq 0,10$ ps/km^{1/2}

PMD Q $\leq 0,06$ ps/km^{1/2}

Cut-off wavelength (λ_{cc}) ≤ 1260 nm

TABLE 1 : LOOSE TUBES COLOUR CODE

# Tube	Fibres in cable				
	8	16	32	64	128
1	White	White	White	White	White
2	Red	Red	Red	White	White
3	Black	Black	Black	Red	Red
4	Blue	Blue	Blue	Rojo	Rojo
5	Green	Green	Green	Blue	Blue
6	Black	Black	Black	Blue	Blue
7				Green	Green
8				Green	Green
Fibres per tube	2	2	4	8	16

Table 1: Tubes colour coding.

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

TABLE 2: OPTICAL FIBERS COLOUR CODE

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

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

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MECHANICAL CHARACTERISTICS	Standards	Test Conditions
<i>Minimum tensile strength</i>	EN 187000 Met. 501	3200 N
<i>Crush resistant ($\Delta\alpha < 0.05$ dB)</i>	EN 187000 Met. 504	6200N
<i>Impact Resistant ($\Delta\alpha < 0.05$ dB)</i>	EN 187000 Met. 505	0,10%
<i>Curvature ($\Delta\alpha < 0.05$ dB)</i>	EN 187000 Met. 513	$r = 15 \times \varnothing$ cable; $r \geq 250$ mm
<i>Temperature cycling (operation, $\Delta\alpha < 0.05$ dB)</i>	EN 187000 Met. 601	-25°C / 70°C
<i>Water penetration</i>	EN 187000 Met. 605B	LP _{water} ≤ 1 m (14 days)

DIMENSIONS AND WEIGHTS

Code	# Fibres	Diameter (mm)	Nominal weight (kg/km)
EE6102A000008R2N	8	14,3	155
EE6102A000016R2N	16	14,3	155
EE6102A000032R2N	32	14,3	155
EE6102A000064R2N	64	16,0	180
EE6102A000128R2N	128	16,4	190

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