

SHOTGUN-RESISTANT ADSS - PKCP Sheath

SHOTGUN-RESISTANT ADSS MULTITUBE FIBRE-OPTIC CABLES

DESCRIPTION AND APPLICATION

8 to 64 fibres ADSS loose tube single mode optical fibre cables. The tubes are filled with a thixotropic filling compound. Water blocking between the tubes is achieved by swellable dry elements. Coated with a PKCP sheath containing woven aramid yarns against shootings. These cables are recommended for self-supporting aerial installation, with maximum spans of 80 m, in areas with risk of being hit by buckshot.

CONSTRUCTION

1. Loose tubes: 2, 4 or 8 singlemode optical fibres in PBT loose tubes filled with thixotropic compound. Colour coding of tubes and fibres according to tables 1 and 2.
2. Singlemode optical fibres
3. Central reinforcing element: Dielectric fibreglass (FRP).
4. Core formation: Loose tubes stranded in SZ. Swellable yarns and tapes to avoid water penetration and make the cable waterproof.
5. Inner sheath: polyethylene.
6. Reinforcement: Aramid yarns as strength reinforcing element
7. Shotgun protection: Two aramid fabric tapes helically applied
8. Outer sheath: Black polyethylene, UV resistant. Markings:
CABLESCOM / year / No. Fibres / Batch number /MN /PKCP + length markings
Other sheath marks available upon request



OPTICAL FIBRE CHARACTERISTICS

The parameters of the optical fibres are compliant with the ITU-T G.652D recommendation.

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 $\leq 0,20$ ps/km^{1/2}

PMD link $\leq 0,20$ ps/km^{1/2}

Cut-off wavelength (λ_{cc}) ≤ 1260 nm

LOOSE TUBE COLOUR CODE

NO. TUBES IN THE CORE LAYER	NO. FIBRES IN THE CABLE					
	8	16	24	32	48	64
1	White	White	White	White	White	White
2	Red	Red	White	Red	White	White
3	Black	Black	Red	Black	Red	Red
4	Blue	Blue	Red	Blue	Red	Red
5	Green	Green	Blue	Green	Blue	Blue
6	Black	Black	Blue	Black	Blue	Blue
7						Green
8						Green
tubes	4	4	6	4	6	8
fillers	2	2	0	2	0	0
No. fibres/tube	2	4	4	8	8	8

OPTICAL FIBRE COLOUR CODE

Fibre Colour Abrev.	1	2	3	4	5	6	7	8
	Green	Red	Blue	Yellow	Grey	Violet	Brown	Orange
	G	R	Bl	Y	Gr	Vi	Br	Or

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.

Cables de Comunicaciones Zaragoza, SL.

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Certified Company ISO 9001 – ISO 14001

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PRODUCT INFORMATION

Code	Fibres Num.	Nominal OD (mm)	Nominal Weight (kg/km)
EE6102P0000080WN	8	17.0	220
EE6102P0000160WN	16	17.0	220
EE6102P0000240WN	24	17.0	220
EE6102P0000320WN	32	17.0	220
EE6102P0000480WN	48	17.0	220
EE6102P0000640WN	64	19.0	260

Mechanical characteristics	Standard	Test conditions
Tensile strength ($\Delta\epsilon_f=0\%$, $\Delta\alpha<0.05$ dB)	EN 187000, Met. 501	4000 N (Up to 48 fo) 4300 N (64 fo cable)
Maximum tensile strength ($\Delta\epsilon_f<0.33\%$, $\Delta\alpha$ reversible)		7000 N
Crush resistance ($\Delta\alpha<0.05$ dB)	EN 187000, Met. 504	3000N
Impact resistance ($\Delta\alpha<0.05$ dB)	EN 187000, Met. 505	5J, R = 10mm
Static bending ($\Delta\alpha<0.05$ dB)	EN 187000, Met. 513	$r = 15d$ mm ($r \geq 250$ mm)
Repeated bending ($\Delta\alpha<0.05$ dB)	EN 187000, Met. 507	$r = 15d$ mm, 100 cycles
Torsion test ($\Delta\alpha<0.05$ dB)	EN 187000, Met. 507	$\pm 360^\circ$, 100 N, 5 cycles
Temperature cycling (operation, $\Delta\alpha<0.05$ dB)	EN 187000, Met. 601	-25°C / +70°C Cycles=4
Water penetration	EN 187000, Met. 605B	LPwater= 1 m (14 days)
Shotgun test (tubes not broken)		Distance 20 m pellets: numbers 5 and 7

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