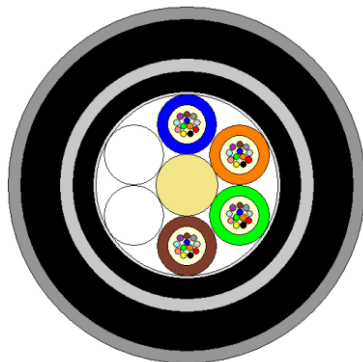


Loose Tube Dielectric Armoured Cable with PA Covering

Cable Design

IEC/EN 60794



48 fo cable- not to scale -

- **Central Strength Member (CSM):** glass fibre reinforced plastic rod (FRP), with plastic oversheathing when needed.
- **Loose Tube:** thermoplastic material, containing optical fibres and filled with a suitable water tightness compound.
- **Filler Elements:** thermoplastic rods, where needed.
- **Stranding:** loose tubes (and fillers), SZ stranded around the CSM.
- **Longitudinal Water Tightness:** dry core with water swellable elements.
- **Inner Sheath:** PE, 2 ripcords beneath.
- **Peripheral Strength Elements and Non Metallic Armour as rodent protection:** glass yarns.
- **Outer Sheath:** HDPE.
- **Protective Covering:** PA (hydrocarbon and termites resistant)

Technical data

No. of Fibres		12	24	36	48	60	72	96	144	288
Design		1x12	2x12	3x12	4x12	5x12	6x12	8 x 12	12 x 12	(9+15) x 12
Loose Tube / Filler - Ø	mm	2.3								
CSM - Ø	mm	2.4							3.0	3.0
CSM-Oversheathing - Ø	mm	-							3.9	4.8
Inner / Outer Sheath Thickness	mm	0.8 / 1.3								
Protective Covering Thickness	mm	0.5								
Cable Diameter	mm	13.3							14.8	20.3
Cable Weight	kg / km	140							175	330
Minimum Bending Radius	mm	Without Tension 15 x Cable-Ø							Under Maximum Tension 20 x Cable-Ø	
Temperature Range	°C	Installation -10 to +50							Transport & Storage -40 to +70	
									Operation -30 to +70	

Please refer to our General Installation, Safety & Handling recommendations before handling.

Main characteristics

Test	Test Standard	Specified Value	Acceptance Criteria
Max. Installation Tension	IEC 60794-1-2-E1	4000 N	$\Delta\alpha$ reversible
Max. Operation Tension	IEC 60794-1-2-E1	1500 N	no fibre strain, $\Delta\alpha \leq 0.05$ dB
Crush	IEC 60794-1-2-E3	2000 N / 100 mm, max. 15 min	$\Delta\alpha \leq 0.05$ dB, no damage
Impact	IEC 60794-1-2-E4	10 Nm, 3 impacts, R= 300 mm	$\Delta\alpha \leq 0.05$ dB after the test
Cable Bend	IEC 60794-1-2-E11	R=20x D, 4 turns, 3 cycles	$\Delta\alpha \leq 0.05$ dB, no damage
Temperature Cycling	IEC 60794-1-2-F1	-30°C to +70°C	$\Delta\alpha \leq 0.05$ dB/km
Water Penetration	IEC 60794-1-2-F5B	Sample=3m, water column=1m	no water leakage in 24h







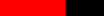
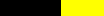




All optical measurements at 1550 nm (SM) and 1300 nm (MM). Acceptance criteria for MM fibres ≤ 0.2 dB for all mechanical test and ≤ 0.5 dB/km for temperature cycling, instead of 0.05 dB (SM).

Optical Characteristics













See the attached cabled optical fibre data sheet.













Identification

Fibre Colours

No.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	blue	orange	green	brown	grey	white	red	black	yellow	violet	pink	aqua
												

Buffer Tube Colours

No.	1	2	3	4	5	6	7	8	9	10	11	12
Colour	blue	orange	green	brown	grey	white	red	black	yellow	violet	pink	aqua
												

No.	13	14	15	16	17	18	19	20	21	22	23	24
Colour	blue ¹	orange ¹	green ¹	brown ¹	grey ¹	white ¹	red ¹	white ²	yellow ¹	violet ¹	pink ¹	aqua ¹
												

<colour>¹ with evenly spaced black ring marks

<colour>² with evenly spaced double black ring marks

Filler Elements Colours:

All filler elements are uncoloured (natural).

Sheath Colour:

The inner and outer sheath colour is black.

Sheath Marking:

The outer sheath is marked in 1 meter intervals as follows:

<Optional: Customer name> <Manufacturer> <year of manufacture> <no. and type of fibre>
<length marking in meter>

Logistic

Packing:

Wooden drums with protection.

Delivery Length:

Standard delivery length is 4 km with a tolerance of -1% / +3%

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All sizes and values without tolerances are reference values. Specifications are for product as supplied by PrysmianGroup: any modification or alteration afterwards of product may give different result.

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