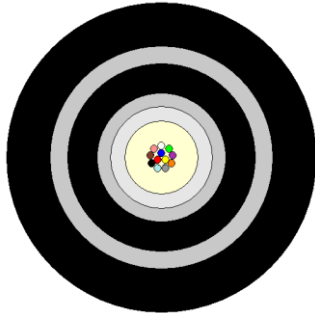


Underground Optical Cable with Dielectric Armour

Cable Design

IEC/EN 60794



- not to scale -

- **Central Loose Tube:** thermoplastic material, containing optical fibres and filled with a suitable water tightness compound.
- **Longitudinal Water Tightness:** dry core with water swellable elements.
- **Inner Sheath:** HFFR, two ripcords beneath
- **Peripheral Strength Elements and Non Metallic Armour:** glass yarns.
- **Outer Sheath:** HFFR, two ripcords beneath.

This cable is suited for installation in cable ducts and also directly buried with proper sand back filling. All-dielectric construction permits a lighter, more flexible cable that does not conduct electricity or attract lightning strikes. Glass yarn dielectric armour enhances mechanical resistance and protects the cable against rodents. Halogen free, flame retardant sheathing prevents the cable from spreading flames and does not evolve toxic nor opaque gases in the event of fire.

Technical data

No. of Fibres		1 to 12		
Cable Diameter	mm	9.2		
Cable Weight	kg / km	95		
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 -25 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	1500 N	$\Delta\alpha$ reversible
Crush	IEC 60794-1-2-E3	1500 N / 100 mm, max. 15 min	$\Delta\alpha \leq 0.05$ dB after the test
Impact	IEC 60794-1-2-E4	5 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	-25°C to +70°C	$\Delta\alpha \leq 0.05$ dB/km
Water Penetration	IEC 60794-1-2-F5B	sample=3m, water column=1m, 24h	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	slate	white	red	black	yellow	violet	pink	aqua

Buffer Tube Colour:

The central loose tube is 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>
<cable ID no.> <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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