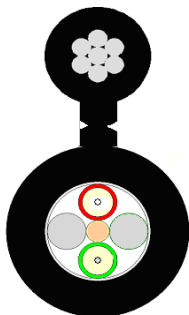


Optical fibre cables for drop aerial installation

Cable Design

Acc. to IEC 60794



- Figure : 2 fibres cable (not to scale) -

- **Messenger** : galvanized steel strand
- **Loose Tube**: thermoplastic material, containing optical fibers and filled with a suitable water tightness compound.
- **Filler Elements**: thermoplastic rods, where needed.
- **Longitudinal Water Tightness**: water-swellable elements (dry core). A white-red identification thread is laid over core.
- **Outer Sheath**: Black polyethylene. Two ripcords are laid beneath.

Technical data

No. of Fibres		2	4	12
Design		2 x 1	4 x 1	3 x 4
Loose Tube / Filler – Ø	mm		1.5	
Messenger Dimensions	mm		7 x 0.7	
Web Dimensions (W x H)	mm		2.0 ± 0.5 x 2.0 ± 0.5	
Sheathed Messenger Diameter	mm		4.3 ± 0.2	
Cable Diameter	mm		6.5	
Cable Height	mm		12.8	
Cable Weight	kg / km		65	
Minimum Bending Radius	mm	Without Tension 10 x Cable-Ø		Under Maximum Tension 15 x Cable-Ø
Temperature Range	°C	Installation - 15 to + 60	Transport & Storage - 40 to + 70	Operation - 40 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	≥ 3.0 kN	$\Delta\alpha \leq 0.05$ dB/100m fibre strain ≤ 0.33 %
Max. Operation Tension	IEC 60794-1-2-E1	≥ 2.5 kN	$\Delta\alpha \leq 0.05$ dB/100m fibre strain ≤ 0.20 %
Crush	IEC 60794-1-2-E3	350 N	$\Delta\alpha \leq 0.05$ dB
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 ≤ 150 mm (with messenger) R=10 x D (optical core) 4 turns, 3 cycles	$\Delta\alpha \leq 0.05$ dB
Temperature Cycling	IEC 60794-1-2-F1	-40°C to +70°C	$\Delta\alpha \leq 0.1$ dB/km
Water Penetration	IEC 60794-1-2-F5B	sample=3 m, water column=1 m	no water leakage in 24 h (optical core only)

All optical measurements at 1550 nm.

Optical Characteristics

See the attached cabled optical fibre data sheet.

Identification

Fibre Colours 2F cable

Tube	1	2
No.	1	1
Colour	red	green

Fibre Colours 4F, 12F cable

No.	1	2	3	4
Colour	white	red	yellow	green

Tube Colour

Tube	1	2	3	4
Colour	red	green	white	white

Sheath Colour

The outer sheath colour is black.

Sheath Marking

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

<Manufacturer> <part numbers> <cable code> PE Optical Cable <fiber type> <batch no.>
<year and week of manufacture> <length marking in meters>

Logistic

Packing

Wooden drums with protection.

Delivery Lengths

Standard delivery lengths are 2 km or 4 km with a tolerance of - 1% / + 3%

© PrysmianGroup 2012, All Rights Reserved

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.

The information contained within this document must not be copied, reprinted or reproduced in any form, either wholly or in part, without the written consent of PrysmianGroup. The information is believed to be correct at the time of issue. PrysmianGroup reserves the right to amend this specification without prior notice. This specification is not contractually valid unless specifically authorized by PrysmianGroup.