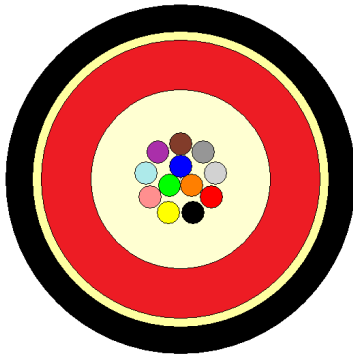


Unitube Mini Cables for use in Ducts

Cable Design

IEC/EN 60794



- not to scale -

- **Loose Tube:** Thermoplastic material filled with a suitable water tightness compound.
- **Strength members:** are applied in the cable.
- **Outer sheath:** consists of a special high-density polyethylene compound.

This loose tube dielectric optical cable is designed for outdoor installation in ducts and microducts by blowing techniques.

Technical data

No. of Fibres		2 - 24		
Loose Tube- Ø	mm	3.1		
Sheath thickness	mm	0.4		
Cable Diameter	mm	3.9		
Cable Weight	kg / km	12.5		
Tensile Performance	N	150		
Min. bending radius	mm	Without Tension 15 x Cable-Ø		
Temperature range	°C	Under Maximum Tension 25 x Cable-Ø		
		Installation -10 to +50	Transport. & Storage -40 to +70	Operation -30 to +60

Main characteristics

Test	Standard	Specified value	Acceptance Criteria ⁽³⁾
Tensile Performance	IEC 60794-1-2-E1	150 N	$\Delta\alpha \leq 0.05$ dB after the test
Crush	IEC 60794-1-2-E3	1000N, 100mm plate/plate 1min.	$\Delta\alpha \leq 0.05$ dB after test, no damage
Impact	IEC 60794-1-2-E4	5 Nm, R=200mm, 3 impacts	no damage
Torsion	IEC 60794-1-2-E7	$\pm 180^\circ$, L=1m, 10 cycles	$\Delta\alpha \leq 0.05$ dB, no damage
Kink	IEC 60794-1-2-E10	min diameter=10x cable Ø	no damage
Repeated bending	IEC 60794-1-2-E6	R= 15xcable Ø, 100 cycles, 20N	no damage
Cable bend	IEC 60794-1-2-E11	R= 10xcable Ø, 5 turns, 3 cycles ⁽¹⁾	$\Delta\alpha \leq 0.05$ dB, no damage
Temperature range ⁽²⁾	IEC 60794-1-2-F1	-30 to +60°C -40 to +70°C	$\Delta\alpha \leq 0.05$ dB $\Delta\alpha \leq 0.10$ dB
Water Penetration	IEC 60794-1-2-F5B	sample=3m, water=1m	no water leakage after 24h

⁽¹⁾ at room temperature $23^\circ\text{C} \pm 2^\circ\text{C}$ ⁽²⁾ temperature cycling test shall be performed on cable coil (without drum)

⁽³⁾ all optical measurements at 1550 nm (SMF) and 1300 nm (MMF). Acceptance criteria for MM fibres ≤ 0.5 dB for all tests instead of 0.05 dB (SMF).

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	red	green	yellow	blue	white	violet	orange	black	grey	brown	pink	aqua

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

<colour>¹ with black ring marks in 50mm intervals

Buffer Tube Color:

The central loose tube is red.

Sheath Colour:

The outer sheath colour is black.

Sheath Marking:

The outer sheath is marked in 1 meter intervals as follows

Connect Com www.ccm.ch	A-DQ(ZN)2Y <no. and type of fibres> <length marking in meter>	<production number>
--	--	---------------------

Logistic

Packing:

Plastic or plywood drums with protection.

Delivery Length:

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

© PrysmianGroup 2018, 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.