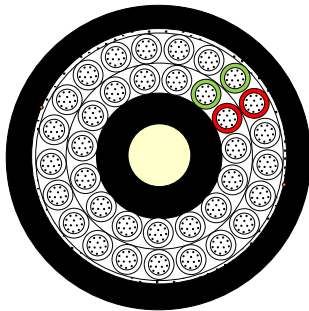


Duct optical fibre cable

TV06087



-not to scale-

Cable Design

According to IEC/EN 60794

- **Optical Fibres:** 250µm single-mode G.657.A1.
- **Central Strength Member (CSM):** glass fibres reinforced plastic rod (GRP) with over-sheath.
- **Tubes:** thermoplastic material containing 12 optical fibres and filled with a suitable water tightness compound.
- **Stranding:** loose tubes, SZ stranded around the CSM.
- **Longitudinal Water Tightness:** water swellable materials (dry core).
- **Outer Sheath:** UV resistant HDPE, 2 ripcords beneath.

Cable Application

These outdoor duct optical fibre cables are optimized for blowing, jetting or pulling into ducts. Please refer to our General Installation, Safety & Handling recommendations before handling.

Technical Data

No. of Fibres		432		
Design	Ref	60093568		
Layout (Tubes x Fibres)	-	36 x 12		
Tube Diameter – Ø	mm	1.9		
CSM/Enlargement – Ø	mm	4.0 / 8.0		
Sheath Thickness	mm	1.5		
Cable Diameter – Ø	mm	19.4		
Cable Weight	kg / km	295		
MIT (Maximum Installation Tension)	N	4350		
Minimum Bending Radius	mm	Under Maximum Tension: 20 x Cable Ø	Without Tension: 10 x Cable Ø	
Temperature Range	°C	Transport & Storage: -40 → +70	Installation: -20 → +45	Operation: -20 → +60

Main Characteristics

Test	Standard	Specified Value	Acceptance Criteria
Tensile Performance	IEC 60794-1-21-E1	1.5 x W, see table above	$\Delta\alpha \leq 0.05$ dB, $\Delta I/I \leq 0.60\%$
Crush	IEC 60794-1-21-E3	1500 N / 100 mm, 10 min	$\Delta\alpha \leq 0.05$ dB
Impact	IEC 60794-1-21-E4	10 J, 3 impacts, R = 300 mm	$\Delta\alpha \leq 0.05$ dB
Repeated Bending	IEC 60794-1-21-E6	R = 10 x OD, 25 cycles	Cable integrity
Torsion	IEC 60794-1-21-E7	$\pm 180^\circ$, 2 m	$\Delta\alpha \leq 0.05$ dB
Kink	IEC 60794-1-21-E10	R = 10 x OD	Cable integrity
Bend	IEC 60794-1-21-E11	R = 10 x OD, 4 turns, 3 cycles	$\Delta\alpha \leq 0.05$ dB
Temperature Cycling	IEC 60794-1-22-F1	-20 °C to +60 °C -30 °C to +70 °C	$\Delta\alpha \leq 0.05$ dB/km $\Delta\alpha \leq 0.15$ dB/km
Water Penetration	IEC 60794-1-22-F5B	3 m sample, 1 m water, 24 h	no water penetration
Ageing	IEC 60794-1-22-F9	168 hours, +85 °C	$\Delta\alpha \leq 0.25$ dB/km, 0.10 dB/km average

Optical Characteristics

See the attached optical fibre data sheet ref: 250µm single-mode G.657.A1 (CH).

Identification

Fibre Colours:

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

Tube Colours (inner and outer layer):

No.	Pilot	Intermediate	Marker
Colour	red	natural	green

Sheath Colour:

The outer sheath colour is black.

Sheath Marking:

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

<length marking in meters>M  <no. of fibres>F G657A1 PRYSMIAN PGH <year of manufacture>

Logistic

Packing: Wooden drums with protection.

Delivery Lengths: Standard delivery length is 2 km.
Maximum delivery length is 4 km.

All optical measurements in accordance with ITU-T G650 recommendations

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