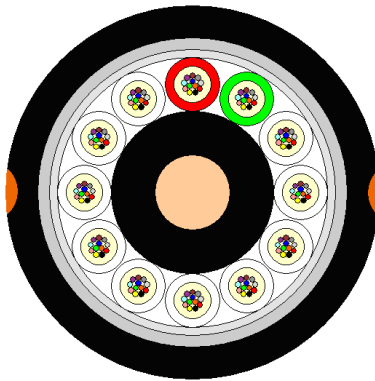


## Optical Fibre Cables for Outdoor Installation (GGT type)

### Cable Design

6PHETOP\_1069\_00E\_v6.2

IEC/EN 60794



- not to scale -

- **Central Strength Member (CSM):** glass fibre reinforced plastic rod (FRP), with plastic oversheathing when needed.
- **Loose Tube:** thermoplastic material, containing 12 or 24 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.
- **Peripheral Strength Elements and Non Metallic Armour:** glass yarns (glass content 43kTex).
- **2 Ripcords**
- **Outer Sheath:** PE.

### Technical data

Cable Type Designation		GGT									
No. of Fibres		12	24	48	72	96	120	144	192	432	576
Design	1 <sup>st</sup> layer	5 x 12			6x12	8x12	10x12	12x12	8x24	6x24	9x24
Design	2 <sup>nd</sup> layer	-								12x24	15x24
Outer Sheath Thickness (min.)	mm	1.5									
Cable Diameter	mm	11.8			12.3	13.9	15.5	17.2	18	22	25
Cable Weight	kg / km	130			145	175	210	250	245	370	470
Minimum Bending Radius	mm	Without Tension 15 x Cable-Ø					Under Maximum Tension 20 x Cable-Ø				
Temperature Range	°C	Installation -20 to +60			Transport & Storage -25 to +70			Operation -20 to +60			

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	6000 N	$\Delta\alpha$ reversible, fibre strain $\leq 0.33\%$
Crush	IEC 60794-1-2-E3	5000N/100mm, max. 15m	$\Delta\alpha \leq 0.05$ dB, no damage
Impact	IEC 60794-1-2-E4	10 Nm, 3 impacts, R= 10 mm	$\Delta\alpha \leq 0.05$ dB after the test
Torsion	IEC 60794-1-2-E7	1m, 100N, +/- 180°, 5 cycles	$\Delta\alpha \leq 0.1$ dB, no damage
Repeated Bending	IEC 60794-1-2-E6	R=15x D, 400N, 100 cycles	no damage
Cable Bend	IEC 60794-1-2-E11	R=15x D, 5 turns, 3 cycles	$\Delta\alpha \leq 0.05$ dB
Temperature Cycling	IEC 60794-1-2-F1	-20°C to +60°C -25°C to +70°C	$\Delta\alpha \leq 0.05$ dB/km $\Delta\alpha \leq 0.10$ dB/km, reversible
Water Penetration	IEC 60794-1-2-F5B	Water column=1m, 14 days	water penetration < 1m

All optical measurements at 1550 nm.

### 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 <sup>1</sup>	green <sup>1</sup>	yellow <sup>1</sup>	blue <sup>1</sup>	white <sup>1</sup>	violet <sup>1</sup>	orange <sup>1</sup>	natural <sup>1</sup>	grey <sup>1</sup>	brown <sup>1</sup>	pink <sup>1</sup>	aqua <sup>1</sup>

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

### Buffer Tube Colours

1<sup>st</sup> layer

Tube	1	2	3	4	5	6	7	8	9	10	11	12
Colour	red	green	white	white	white	white	white	white	white	white	white	white

2<sup>nd</sup> layer

Tube	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Colour	red	green	white	white	white	white	white	white	white	white	white	white	white	white	white

### Filler Elements Colour:

All filler elements are black.

### Sheath Colour:

The outer sheath colour is black with two diametrically opposite orange stripes.

### Sheath Marking:

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

**SWISSCOM DRAKA <year of manufacture> GGT DR 6000N**  
**<fabrication no.> <length marking in meter>**

Example: cable with 192 G.652.D fibres produced in 2015:

**SWISSCOM DRAKA 2015 GGT 192 FS/D DR 6000N 012345 01234M**

## Logistic

### Packing:

Wooden drums with protection.

### Delivery lengths:

Standard delivery lengths are 2.5 km, 4.5 km, 6 km, 8 km with a tolerance of -1% / +3%

© PrysmianGroup 2015, 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.