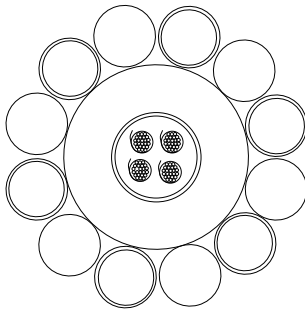


OPTICAL GROUND WIRE with capacity up to 96 optical fibres

TC06582



-not to scale-

Cable Design

According to IEC/EN 60794

- **Loose tube:** Laser welded hermetically sealed stainless steel tube filled with hydrogen scavenger and water blocking compound.
- **Aluminium tube:** Seamless Extruded tube
- **Armour:** Layer of metallic wires.
Right lay sense (Z).

Cable Application

This Optical Ground Wire cable (OPGW) has been custom designed to best match with customer requirements from optical, electrical, mechanical, quality and cost point of view, optimising diameter, weight, breaking load and short circuit capacity.

Main mechanical and physical characteristics

No. of Fibres (grouped by 96) ⁽¹⁾		96
No. of Tubes		1
Stainless steel tube - Ø	mm	4.6
ALU tube - Ø	mm	7.4
Armouring 1st layer	6 ACS 20.3% IACS Ø 2.5 mm + 6 AA Ø 2.5 mm	
Cable Diameter	mm	12.4
Cable Weight	kg / km	385
Rated tensile strength (RTS)	kN	49
Max. Recommended load	kN	18.5
Max. Allowable Tension (MAT)	kN	32.3
Nominal installation force	kN	6.9
Max. installation force	kN	9.2
Elasticity modulus ⁽²⁾	kN/mm ²	91.3
Effective section ⁽²⁾	mm ²	84.6
Linear thermal elongation coefficient	1E-6/°C	17.0
Minimum Bending Radius.	mm	On pulley blocks ⁽³⁾ : 400
		On pulley blocks (others): 300
		After clamping (slack cable): 300
		On tensioner devices: 500
Temperature Range	°C	Installation: -20 -> +50
		Transport. & Storage: -40 -> +80
		Operation: -40 -> +80

(1) other configurations upon specific request.

(2) for stress-strain computation.

(3) first and last of each reel, span ≥ 600 m or angles > 15°

Main electrical characteristics

Electrical resistance (20°C)	Ω/km	0.49
Initial temperature for short-circuit	°C	20
Final temperature for short-circuit	°C	180
Short circuit rating	kA2s	61.8
Short circuit current for 1 s	kA	7.9

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	rose	aqua

*Designs with more than 12 fibres per tube will use the standard colour code and rings for identification of the fibres using natural colour instead of black colour.

Bundle Colours

No.	1	2	3	4
Colour	blue	orange	green	brown

Routine test

100% of optical fibres will be measured by OTDR technique before leaving factory

Installation

Prysmian Group recommends installing the cable described in this specification following the latest version of our "Installation procedures for OPGW fibre optic cable" reference SIG-07-PE-PA-013, "Instruction for the installation of the EWMJ joint box" reference FO-02 and "Instruction for the installation of the EWJ joint box" reference FO-01.

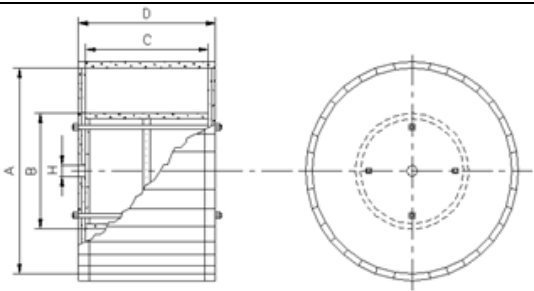
Logistic

Packing: Wooden drums.

NOTE:

Ordered lengths should include a distribution of lengths, i.e., all reels cannot be ordered at the maximum.

	Type X	Type G
Wheel (A):	1300 mm	1700 mm
Cylinder (B):	800 mm	900 mm
Inside (C):	930 mm	1178 mm
Outside (D):	1050 mm	1350 mm
Axe (H):	105 mm	105 mm
Weight:		
- empty:	205 kg	375 kg
- full:	1700 kg	3500 Kg
Maximum length:	3800 m	8000 m
Tolerance length of the produced reel: $\pm 3\%$		



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