Prysmian Cabos e Sistemas do Brasil S.A.

ENVIRONMENTAL PRODUCT DECLARATION

Product name:
OPTICAL GROUND WIRE OPGW SM 16.7 48FO

Manufacturing site:
Sorocaba, Av. Pirelli 1100,
Éden,
SP – 18103-085, Brasil

In accordance with ISO 14025 and EN 50693:2019

Program Operator	EPDItaly
Publisher	EPDItaly

Declaration Number	EPD_Prysmian_Brasil_8
Registration Number	EPDITALY0334

Issue Date	2022/06/08
Valid to	2027/06/07

1. General information

Owner of the declaration	Prysmian Cabos e Sistemas do Brasil S.A. Avenida Pirelli 1100 / 18.103-085 / Sorocaba - SP, Brasil
Plants involved in the EPD	Prysmian Cabos e Sistemas do Brasil S.A. Avenida Pirelli 1100 / 18.103-085 / Sorocaba - SP, Brasil
Product identification	OPTICAL GROUND WIRE OPGW SM 16.7 48FO
Product description	Optical Ground Wire cable (OPGW) for grounding and communications to be used in overhead power lines.
Program Operator	EPDITALY (www.epditaly.it) Via Gaetano De Castillia 10 - 20124 Milano, Italy
Independent verification	This declaration has been developed in accordance with the EPDItaly Regulations; further information and the Regulations themselves are available on the website: www.epditaly.it EN 50693 is the framework reference for PCRs. Independent verification of the declaration and data according to ISO 14025:2010. Internal ☐ External ☒
Third Party Verification	Third party verification performed by: SGS Italia S.p.A. Via Caldera, 21, Milano, Lombardia, 20153. Accredited by Accredia (accreditation number: 006H)
CPC-Based Code	463 family “Insulated wire and cable; optical fibre cables” and sub-sequent clusters
Company contact	Dott. Stefano Luciano Prysmian Group - Via Chiese 6 20126, Milano, Italy stefano.luciano@prysmiangroup.com
Technical support	Deloitte & Touche SpA Via Tortona 25 - 20144, Milano, Italy
Comparability	Environmental statements published within the same product category, but from different programs, may not be comparable.
Reference documents	This declaration has been developed following the EPDItaly Programme Regulations, available on the website:www.epditaly.it.
Product Category Rules (PCR)	EPDItaly007 - CORE PCR EN 50693_BASE_rev.2, issue date: 20-01-2020; revision date: 21-10-2020 EPDItaly016 - SUB PCR EN 50693_cables_rev.2, 2020/09/25 EN 50693:2019

2. Company profile

Prysmian Group is world leader in the power and telecom cable systems industry.
With almost 140 years of experience, the Group offers the widest range of products, services, technologies and know-how for every type of industry, thanks to a widespread commercial presence, R&D centers in Europe, the United States, South America and China and over 500 R&D qualified professionals. The Group is organized into the following operating segments:

Oil & Gas: offers innovative solutions for complex instrumentation and control systems and integrated energy to connect the entire oil and gas distribution chain. State-of-the-art manufacturing facilities and test labs provide a wide range of SURF (Subsea Umbelical, Riser and Flowline) cables and products, from steel or thermoplastic umbilical cables, to flexible tubing and downhole technology for business mining offshore;

Telecom: the Prysmian Group, by offering an essential contribution to the world's leading companies in the telecommunications sector, has become one of the world's largest producers of cables and accessories for voice, video and data transmission thanks to a complete range of optical fibers, optical and copper cables and connectivity systems. FlexTube® with the highest density of optical fibers, installed in 2017 in Hong Kong to increase the quality of optical fibers and innovation applied to cables allow the Group to face the most difficult and ambitious broadband connection challenges;

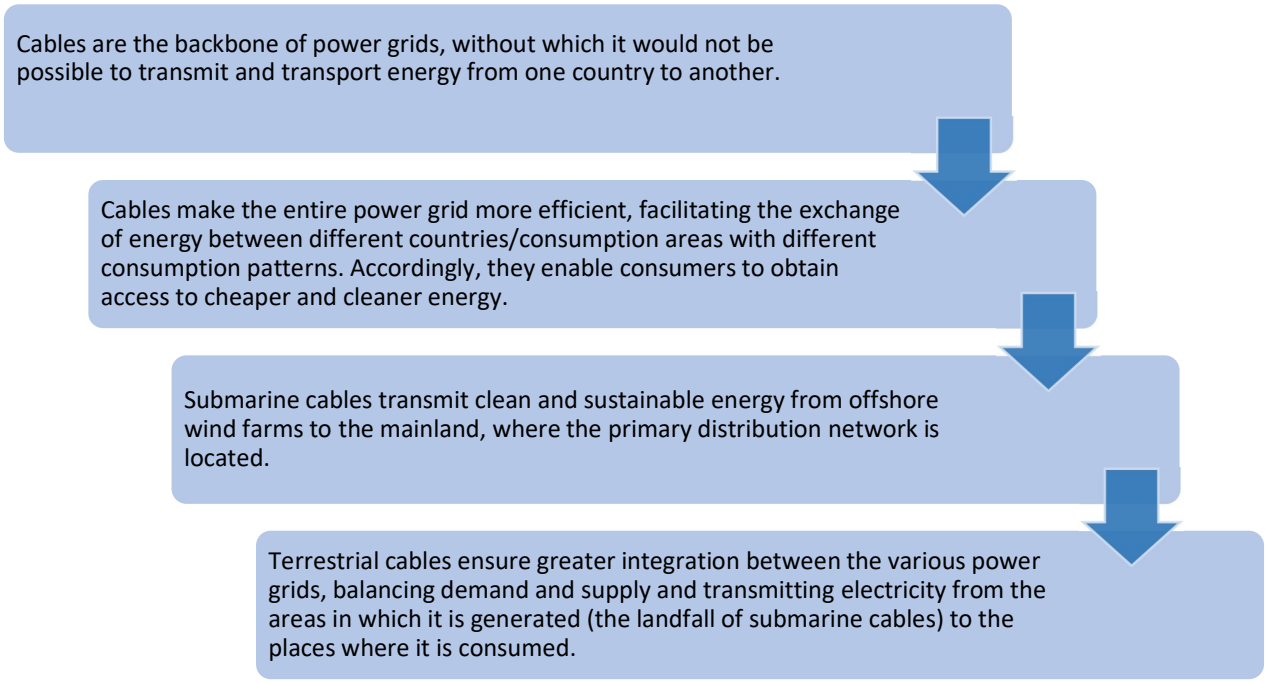
Energy Projects: the Prysmian Group designs, manufactures and installs high and very high voltage cables and systems for the transmission of underground and submarine energy directly from power plants to primary distribution networks. The technologies of the Group for this business include cables for the operation of wind turbines, cables for connection between the various turbines and for connection to the mainland;

Energy Products: in the field of energy transmission and distribution, the Group produces both medium voltage cables and systems for connecting industrial and residential structures to primary distribution networks, and low voltage ones for energy distribution and wiring of buildings. Prysmian solutions were created to support utilities and network managers, industrial companies, installers and wholesalers in the electricity sector.

The Group is also active in the design, production, supply and installation of cables for the most varied applications. In transport, the Prysmian Group has also achieved exceptional milestones, carrying out the wiring of some of the largest passenger aircraft and ships in the world, such as the Airbus 380 or Royal Caribbean's GENESIS fleet, of the fastest trains and the most innovative, like the one inaugurated in Shanghai. Three million passengers on the London Underground travel every day through 400 km of cable tunnels thanks to Prysmian and Draka Fire Resistant cables.

Innovative cable technology

With a view to facilitating the development of ever more efficient, sustainable and integrated grids, Prysmian Group strives constantly to improve the performance of its terrestrial and submarine cables.
Cables are an essential component of the energy transition, representing the backbone of power grids and facilitating the distribution and transportation of energy between various areas marked by different consumption patterns.



Production plant

Prysmian Group comprises 104 production plants in more than 50 countries worldwide. The manufacturing site of the product subject to the present EPD is the plant located in Sorocaba, Brazil:

- Éden, Sorocaba – SP, Av. Pirelli, 1100, 18103-085, Brasil

Sorocaba factory covers an area of almost 478.000 square meters, with a covered area of about 74.000 square meters, for a total annual production capacity of 37.000 tons of energy cables (including Building Wires, Low Voltage, Instrumentation & Control, Automotive and Elevator cables), almost 2.000.000 km of optical cables and 500.000 km of copper telecom cables, covering almost all possible demand for both optical fibre and copper telecom cables types.

Sorocaba plant has become one of the centres of excellence in LatAm for the optical communications cables. The factory holds the ISO 9001 Quality Management System Certification, ISO 45001 Safety Management System Certification and ISO 14001 Environmental Management System Certification, employing over 400 employees.

Company contact

For more information on Prysmian's activities or in relation to this environmental product declaration, you can contact:

Dott. Stefano Luciano
Prysmian Group - Via Chiese 6,
20126, Milano, Italy
stefano.luciano@prysmiangroup.com

Alternatively, you can visit the website: www.prysmiangroup.com/en/sustainability

3. Scope and type of the EPD

Declared unit

The declared unit of the LCA product system is the transmission of communicationdata by means of the OPTICAL GROUND WIRE OPGW SM 16.7 48FO cable, over a distance of 1 km for 40 years and a 100% use rate.

The associated reference flow is the following:

	OPTICAL GROUND WIRE OPGW SM 16.7 48FO
Reference flow [kg]	690,532

System boundaries

This EPD considers the entire life cycle of the cable manufactured by Prysmian. The EPD type is therefore "from cradle to grave" type. In accordance with the EPD Regulations, specifically PCR 007 (Electronic and electrical products and systems) and sub-PCR 016 (Cables and wires), the system boundaries are set with reference to the following three modules:

1. **Upstream module** which includes all the relevant supply chain processes.
2. **Core module** which includes all the relevant processes related to the assembly of the cable and the production of its packaging
3. **Downstream module** which includes all the relevant processes that take place after the assembly stage:
   - product transportation/distribution;
   - product installation;
   - product use & maintenance;
   - product end-of-life.

The system boundaries of the product covered by this EPD, together with the main processes that characterize the phases of the life cycle studied, are represented in figure 1. The system boundaries are described also taking into account the stages proposed by EN 50693.

Type of EPD

Product EPD; this declaration relates to a specific product by a specific manufacturer.

Geographical scope

Manufacturing: Brazil
Product distribution: Brazil

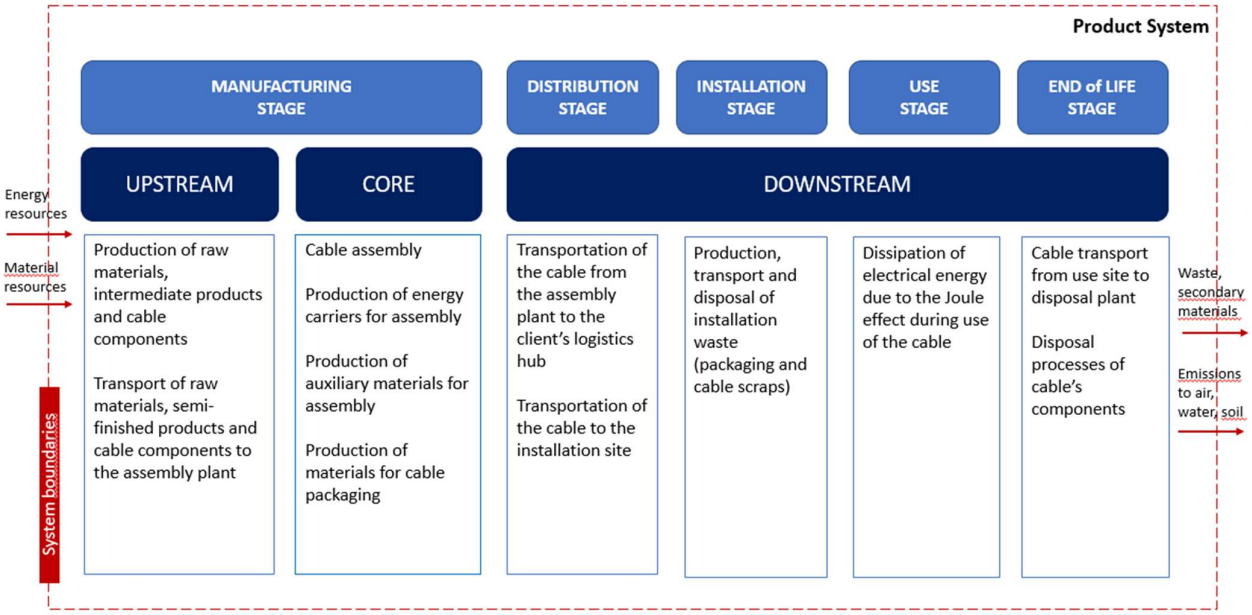


Figure 1 - System boundaries

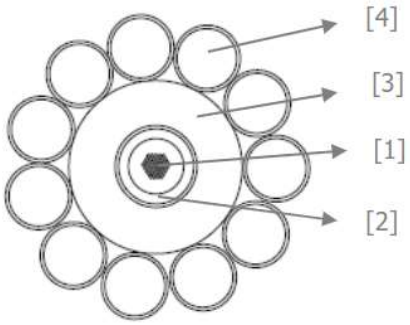
4. Product description

Product identification

Optical fibers ground wire:

- OPGW SM 16.7 48FO

The optical core is made up of optical fibres [1] covered by a PBT loose tube [2] that protects the fibres against high temperatures while leaving the fibres free from elongation even at the maximum specified tensile strength.The aluminium tube [3] provides the cable with the appropriate level of short-circuit protection, the best solution to prevent corrosion, a perfect tightness of the core and high resistance to crushing.
The aluminium-coated steel wires [4] provide the cable with the required load, the best solution to avoid cable corrosion and the required short-circuit current.



- not to scale -

Function and application

The function of the product is the transportation and distribution of communication data.

Main applications: to be used in overhead power lines.

Technical data

Cable	Technical data					
	Section (mm^2)	**Nº wires x wire diameter (Nº x mm)**	**Overall diameter (mm)**	**Weight (kg/km)**	**Tensile strength (kgf)**	**Maximum Rcc at 20ºC (Ω/km)**
OPGW SM 16.7 48FO	163,2	48x9,5	16,7	7400	7400	0,24

Characteristics

Characteristics	**OPGW SM 16.7 48FO**
Max recommended load (kgf)	2900
Elasticity modulus (kgf/mm2)	8942
Coefficient of Linear expansion per degree C ($°C^{-1}$)	17×10^{-6}
Conductivity (% IACS)	40

Cable composition

Material	OPGW SM 16.7 48FO	
	kg / 1 km of cable	% / 1 km of cable
Optical transmission	3,621	0,52
Optical fibre protection	7,038	1,02
Water lock	3,973	0,58
Traction element	0,341	0,05
Separation tape	0,614	0,09
Mooring	0,142	0,02
Metallic cover	146,784	21,26
Round wire frame mooring	528,018	76,47
Total	**690,531**	**100,00**

The packaging of the cable consists of wooden reel.

The cable under study do not contain dangerous substances of a high degree of concern (Substances of Very High Concern-SVHC) contemplated in the ECHA Candidate List (https://echa.europa.eu/it/candidate-list-table).

5. Environmental performances

The environmental performance of the cable OPGW SM 16.7 48FO is shown for 1 km of cable for each module (upstream, core, downstream) and for each stage (Manufacturing, Distribution, Installation, Use and End-of-life) of the life cycle.

The declared environmental indicators include:

- core environmental impacts
- resource use
- waste production
- output flows.

The environmental impact indicators are quantified using the characterisation factors and impact assessment methods specified in EN 15804:2012+A2:2019.

Core Environmental Impact Indicators

1 km of cable OPGW SM 16.7 48FO

Cable OPGW SM 16.7 48FO					
Indicator	**Unit**	**UPSTREAM**	**CORE**	**DOWNSTREAM**	**TOTAL**
GWP-total	kg CO_2 eq	3,11E+03	1,45E+01	4,88E+02	3,61E+03
GWP-fossil	kg CO_2 eq	3,04E+03	1,42E+01	4,88E+02	3,54E+03
GWP-biogen.	kg CO_2 eq	-4,02E+01	-5,16E+02	5,56E+02	0,00E+00
GWP-luluc	kg CO_2 eq	6,52E+01	4,13E-01	2,17E-01	6,58E+01
ODP	kg CFC11eq	4,66E-04	1,86E-06	9,14E-05	5,59E-04
AP	mol H+ eq	1,78E+01	8,79E-02	2,29E+00	2,02E+01
EP-freshw.	kg Peq	5,94E-01	5,22E-03	5,33E-02	6,52E-01
POCP	kgNMVOCeq	1,15E+01	1,52E-01	2,37E+00	1,40E+01
ADPmin&met	kg Sb eq	7,49E-03	3,87E-05	1,97E-03	9,49E-03
ADPfossil	MJ	3,62E+04	1,85E+02	6,60E+03	4,29E+04
WDP	m^3 depriv.	8,60E+02	-7,11E-03	4,40E-01	8,61E+02

Cable OPGW SM 16.7 48FO							
Indicator	**Unit**	**Manufacturing stage**	**Distribution stage**	**Installation stage**	**Use Stage**	**End-of-life stage**	**TOTAL**
GWP-total	kg CO_2 eq	3,12E+03	3,74E+02	1,92E+00	0,00E+00	1,12E+02	3,61E+03
GWP-fossil	kg CO_2 eq	3,06E+03	3,74E+02	1,92E+00	0,00E+00	1,12E+02	3,54E+03
GWP-biogen.	kg CO_2 eq	-5,56E+02	-1,71E+00	-2,10E-02	0,00E+00	5,58E+02	0,00E+00
GWP-luluc	kg CO_2 eq	6,56E+01	1,36E-01	1,19E-03	0,00E+00	8,01E-02	6,58E+01
ODP	kg CFC11eq	4,68E-04	8,16E-05	2,37E-07	0,00E+00	9,58E-06	5,59E-04
AP	mol H+ eq	1,79E+01	1,89E+00	1,27E-02	0,00E+00	3,97E-01	2,02E+01
EP-freshw.	kg Peq	5,99E-01	2,90E-02	8,63E-04	0,00E+00	2,34E-02	6,52E-01
POCP	kgNMVOCeq	1,16E+01	2,00E+00	2,16E-02	0,00E+00	3,48E-01	1,40E+01
ADPmin&met	kg Sb eq	7,53E-03	1,28E-03	9,36E-06	0,00E+00	6,74E-04	9,49E-03
ADPfossil	MJ	3,63E+04	5,55E+03	2,12E+01	0,00E+00	1,03E+03	4,29E+04
WDP	m^3 depriv.	8,60E+02	5,66E+00	-1,22E-02	0,00E+00	-5,21E+00	8,61E+02

GWP-total = Global Warming Potential; **GWP-fossil** = Global Warming Potential - fossil; **GWP-biogenic** = Global Warming Potential - biogenic; **GWP-luluc** = Global Warming Potential - land use and land use change; **ODP** = Depletion potential of the stratospheric ozone layer; **AP** = Acidification potential, Accumulated Exceedance; **EP-freshwater** = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; **POCP** = Formation potential of tropospheric ozone; **ADP-minerals&metals** = Abiotic depletion potential for non-fossil resources; **ADP-fossil** = Abiotic depletion for fossil resources potential; **WDP** = Water deprivation potential, deprivation weighted water consumption.

Resource use indicators

1 km of cable OPGW SM 16.7 48FO

Cable OPGW SM 16.7 48FO					
Indicator	**Unit**	**UPSTREAM**	**CORE**	**DOWNSTREAM**	**TOTAL**
PENRE	MJ, NCV	3,60E+04	1,85E+02	6,60E+03	4,28E+04
PERE	MJ, NCV	9,05E+03	5,60E+03	1,30E+02	1,48E+04
PENRM	MJ, NCV	4,05E+02	0,00E+00	0,00E+00	4,05E+02
PERM	MJ, NCV	0,00E+00	1,87E+03	0,00E+00	1,87E+03
PENRT	MJ, NCV	3,64E+04	1,85E+02	6,60E+03	4,32E+04
PERT	MJ, NCV	9,05E+03	7,48E+03	1,30E+02	1,67E+04
FW	m^3	6,85E+01	9,67E-03	-7,06E-01	6,78E+01
MS	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Cable OPGW SM 16.7 48FO							
Indicator	**Unit**	**Manufacturing stage**	**Distribution stage**	**Installation stage**	**Use Stage**	**End-of-life stage**	**TOTAL**
PENRE	MJ, NCV	3,62E+04	5,55E+03	2,11E+01	0,00E+00	1,03E+03	4,28E+04
PERE	MJ, NCV	1,47E+04	6,33E+01	9,52E-01	0,00E+00	6,55E+01	1,48E+04
PENRM	MJ, NCV	4,05E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,05E+02
PERM	MJ, NCV	1,87E+03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,87E+03
PENRT	MJ, NCV	3,66E+04	5,55E+03	2,11E+01	0,00E+00	1,03E+03	4,32E+04
PERT	MJ, NCV	1,65E+04	6,33E+01	9,52E-01	0,00E+00	6,55E+01	1,67E+04
FW	m^3	6,85E+01	-1,97E-01	-5,79E-03	0,00E+00	-5,03E-01	6,78E+01
MS	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; **PERE** = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; **PENRM** = Use of non-renewable primary energy resources used as raw materials; **PERM** = Use of renewable primary energy resources used as raw materials; **PENRT** = Total use of non-renewable primary energy resources; **PERT** = Total use of renewable primary energy resources; **FW** = Use of net fresh water; **MS** = Use of secondary material; **RSF** = Use of renewable secondary fuels; **NRSF** = Use of non-renewable secondary fuels.

Waste production indicators

1 km of cable OPGW SM 16.7 48FO

Cable OPGW SM 16.7 48FO					
Indicator	**Unit**	**UPSTREAM**	**CORE**	**DOWNSTREAM**	**TOTAL**
HWD	kg	0,00E+00	9,39E-02	0,00E+00	9,39E-02
NHWD	Kg	0,00E+00	2,17E-01	1,58E+02	1,58E+02
RWD	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00

OPGW SM 16.7 48FO							
Indicator	**Unit**	**Manufacturing stage**	**Distribution stage**	**Installation stage**	**Use Stage**	**End-of-life stage**	**TOTAL**
HWD	kg	9,39E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,39E-02
NHWD	Kg	2,17E-01	0,00E+00	8,23E+00	0,00E+00	1,50E+02	1,58E+02
RWD	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

HWD = Hazardous waste disposed; **NHWD** = Non-hazardous waste disposed; **RWD** = Radioactive waste disposed.

Output flows indicators

1 km of cable OPGW SM 16.7 48FO

Cable OPGW SM 16.7 48FO					
Indicator	**Unit**	**UPSTREAM**	**CORE**	**DOWNSTREAM**	**TOTAL**
MER	kg	0,00E+00	2,99E-03	0,00E+00	2,99E-03
MFR	kg	0,00E+00	1,36E-01	5,27E+02	5,27E+02
CRU	kg	0,00E+00	0,00E+00	1,52E+01	1,52E+01
ETE	MJ, NCV	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	MJ, NCV	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Cable OPGW SM 16.7 48FO							
Indicator	**Unit**	**Manufacturing stage**	**Distribution stage**	**Installation stage**	**Use Stage**	**End-of-life stage**	**TOTAL**
MER	kg	2,99E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,99E-03
MFR	kg	1,36E-01	0,00E+00	0,00E+00	0,00E+00	5,27E+02	5,27E+02
CRU	kg	0,00E+00	0,00E+00	1,52E+01	0,00E+00	0,00E+00	1,52E+01
ETE	MJ, NCV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	MJ, NCV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

MER = Materials for energy recovery; **MFR** = Materials for recycling; **CRU** = Components for reuse; **ETE**= Exported thermal energy; **EEE**= Exported electricity energy.

6. Interpretation of results

The environmental impacts of the cable under study, quantified from a life cycle perspective, are largely produced by it's own upstream phase.
Such result depends primarily on the contribution of the manufacturing processes and procurement of raw materials in the supply chain. The production of such materials, mainly steel and aluminium, generates relatively high environmental impacts throughout the overall life cycle of the cable.
The downstream phase, including distribution, installation, use and maintenance and end of life, contributes for around the 14% to the GWP-fossil indicator.
The core phase, on the other hand, contributes very little to environmental impacts because of the low use of energy carriers.

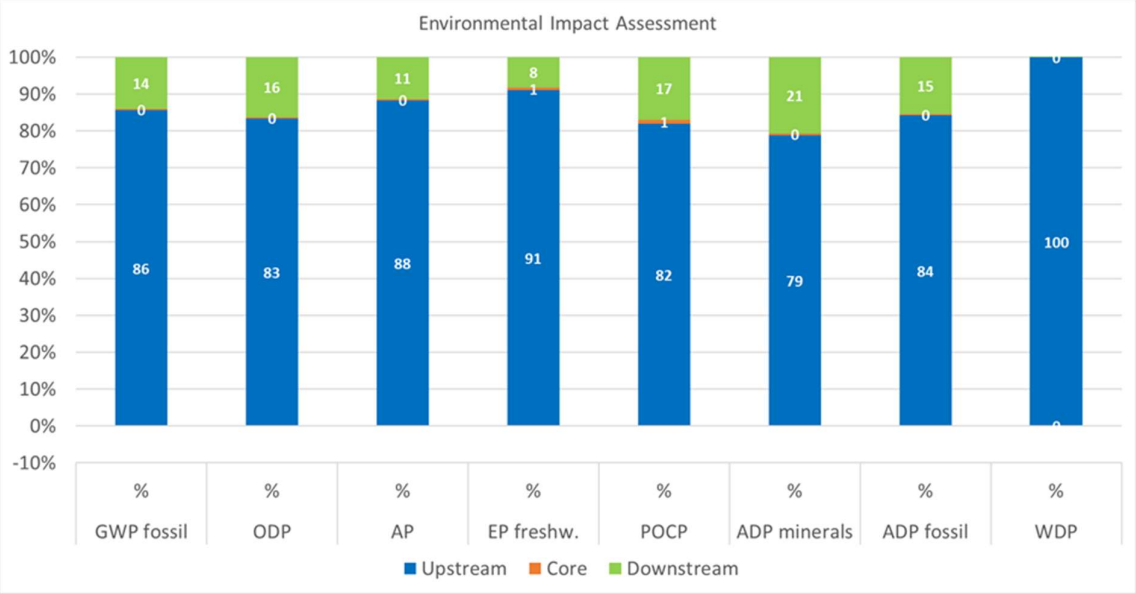


Figure 1. Environmental Impact Assessment of the cable OPGW SM 16.7 48FO

7. LCA calculations

Reference Service Life (RSL)

An average RSL of 40 years is used for the LCA calculations.

Exclusions from system boundaries

The construction, maintenance and decommissioning of infrastructures (buildings and machinery) as well as the occupation of industrial land were not considered in the LCA study.

Cut-off rules

All relevant input and output flows of matter and energy included within the system boundaries were considered.
In compliance with the PCR EPD Italy n.016 chapter 4.2.3.9, the following flows were excluded without any cut-off criteria:

- production, use and disposal of raw materials packaging
- external devices necessary for the installation of the cable itself
- material and energy flows related to dismantling phase, whenever it is reasonable to assume that dismantling is performed by adopting manual tools.

In compliance with the reference PCR, the materials that compose the product and whose mass does not exceed 2% of the total weight of the product itself can be excluded. This cut-off threshold was used for some raw materials included in the optical fiber composition.

In this study it was not necessary to adopt the cut-off criterion of EN 50693 reported in paragraph 4.2.3.3, which allows to exclude input and output flows that account for less than 5% of the total environmental impact of the studied life cycle.

Data sources

Primary and site-specific data from records and documentation provided by the Prysmian cable manufacturing plant in Poços de Caldas, Brasil were used for the foreground processes.

The primary data used include: cable composition (cable design documentation), transport distances for the supply of raw materials, type and amount of material and energy flows in the assembly phase, packaging materials of the finished product and distribution.

For the modeling of the background processes secondary data deriving from international databases (Ecoinvent 3.7.1) were used. Secondary data are related to the manufacture of cable components, the production of energy carriers used in the product system (electricity in the core and downstream modules), the transportation processes and the waste treatment processes.

Data quality

The data used in the study were subjected to evaluation in order to determine the overall level of data quality underlying the quantification of the environmental performances.
The quality assessment was conducted separately both for primary and secondary data by calculating a Data Quality Rating (DQR). For each primary and secondary data a quality level was assigned related to the following criteria:

- Completeness: all the main flows of matter and energy have been fully quantified and included in the study; the flows excluded from the analysis are identified in the Cut-off rules section.

- Time representativeness: the primary data used refer to the year 2021. The secondary data are taken from the Ecoinvent 3.7.1 environmental database released in 2020.
- Geographic representativeness: primary site-specific data were used for the cable assembly processes; for the secondary data, datasets were selected from databases consistent with the geography of the processes studied, whenever this was known.
- Technological representativeness: the primary data used represent the specific production technology of the product under study. For the secondary data taken from the database, reference was made to the most representative technology for the processes in question, where this is known.

The average data quality level is Good for primary data and Fair for secondary data.

Allocations

In the context of multifunctional processes allocation procedures were used in accordance with the provisions of EN 50693: 2019.
The main allocations made are:

- energy consumption in the cable assembly phase: the specific consumptions for the product under study were quantified by allocating the aggregate consumption of the Telecom Unit of the plant according to the mass production share of the cable under study with respect to the total mass production of the plant.
- water consumption and waste production in the cable assembly phase: allocation of the total production of waste of the Telecom Unit of the plant according to the mass production share of the cable under study with respect to the total mass production of the plant.

Life Cycle Impact Assessment

The methods used for calculating the potential environmental impact indicators are those defined by the standard EN 15804: 2019.
For the characterization factors, the European Commission JRC factors were applied, available at:
https://eplca.jrc.ec.europa.eu/LCDN/developerEF.xhtml

Software and Database

The software used for the LCA calculations is OpenLCA. The database used for process modeling is Ecoinvent 3.7.1.

Distribution scenario

The distribution of the cable from the Prysmian production plant to the destination / use site was modeled using a scenario built on the basis of specific and representative Prysmian projected data.
Within this scenario, a transport by road and average distance is considered, as stated below.

Product	Transportation mode	Distance	Unit
OPTICAL GROUND WIRE OPGW SM 16.7 48FO	Transport by Truck, 16-32 tons, EURO 4	2579,40	km

Use phase scenario

In the use phase, the installed cable carries electromagnetic signals for telecommunications. During this phase, therefore, there are no inputs/outputs of matter and energy associated with the operation of the cable.

Therefore, within the modeling of this study, the use and maintenance phase is not evaluated as significant and the related environmental impacts are considered zero.

End of Life scenario

The End of life scenario is defined on the basis of the following assumptions:

- recovery of the dismissed cable (100% of recovered cable)
- dismissed cable transportation from the installation site to the waste treatment site: 300 km by truck
- pre-treatment of the cable through granulation
- material recovery for 70% of aluminium
- landfill for 30% of aluminium
- material recovery for 80% of steel
- landfill for 20% of steel
- incineration of plastic fractions

8.Other environmental information

Prysmian Cabos e Sistemas do Brasil S.A. holds an Environmental Management System compliant and certified with respect to the international standard ISO 14001: 2015 (certificate no. EMS-8459/ANI issued by RINA).

9.References

1. EPDItaly - Program Regulation version 5.2
2. Product Category Rules (PCR) EPDItaly007 - CORE PCR EN 50693 BASE rev.2, 2020/10/21 - Electronic and electrical products and systems
3. Product Category Rules (PCR) EPDItaly016 - SUB PCR EN 50693 cables rev.2, 2020/09/25 - Electronic and electrical products and systems - Cable and wires
4. EN 50693:2019 - Product category rules for life cycle assessments of electronic and electrical products and system
5. EN 15804:2012+A2:2019 Sustainability of Construction Works
6. ISO 14020:2000 Environmental labels and declarations-General principles
7. ISO 14025:2010 Environmental labels and declarations-Type III Environmental Declarations-Principles and procedures
8. ISO 14040:2006/AMD 1:2020 Environmental management-Life Cycle Assessment-Principles and framework
9. ISO 14044:2006/AMD 2:2020 Environmental management-Life Cycle AssessmentRequirements and guidelines
10. Prysmian Group - Report LCA - ita - Cavi EPD8 - Brasile, v5, 25 May 2022