ENVIRONMENTAL
PRODUCT
DECLARATION

MV CABLES

BASED ON:
PCR EPDItaly 016
EN:50693:2019
ISO 14025:2010

CPC:
463

DECLARATION N°:
MVCABLES01

CERTIFICATION N°:
EPDITALY0296

PROGRAM OPERATOR:
EPDItaly

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EPDItaly

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PRODUCTION SITE:
Str. Drumul Cetatii 19,
BISTRITA
Romania

EPD in compliance with ISO 14025 and EN 50693:2019


iproeb


iproeb

PROGRAMME INFORMATION

EPD REFERENCES

EPD Owner: IPROEB S.A. - STR. DRUMUL CETATII NR.19, BISTRITA, JUD. BISTRITA-NASAUD, ROMANIA, CP 420063

Program Operator: EPDItaly

INDEPENDENT VERIFICATION

This declaration has been developed referring to the EPDItaly, following the "Regolamento di EPDItaly" version 5.2; further information and the document itself are available at: www.epditaly.it. EPD document valid worldwide.

Reference PCR: EPDItaly007 REV. 2 – 2020/10/21 "Electronic and electrical products and systems"; EPDItaly016 REV. 2 - 2020/09/25 "Cables and wires"

Independent verification of the declaration and data, according to EN ISO 14025 : 2010

☐ EPD process certification (Internal)

☑ EPD verification (External)

Third party verifier: ICMQ SpA, via De Castillia, 10 20124 Milano (www.icmq.it)

Accredited by: Accredia

Environmental declarations published within the same product category, though originating from different programs, may not be comparable. The EPD Owner releases EPDItaly from any non-compliance with environmental legislation. The holder of the declaration will be responsible for the information and supporting evidence. EPDItaly disclaims any responsibility for the information, data and results provided by the EPD Owner for life cycle assessment.

CONTACTS

To get more information about this environmental declaration or about Iproeb activities please contact:

Alin Malescu (alin.malaescu@iproeb.ro)

Technical support to Iproeb was provided by:
Life Cycle Engineering, Italy
(www.lcengineering.eu).

THE **COMPANY**

IPROEB SA, company with tradition in the electrotechnical field, was established in **1982** becoming one of the important players in the cable and conductors' production market. Its products are used in modernizing and expanding the national energy system, the national railway network or contribute to achieve important industrial objectives.

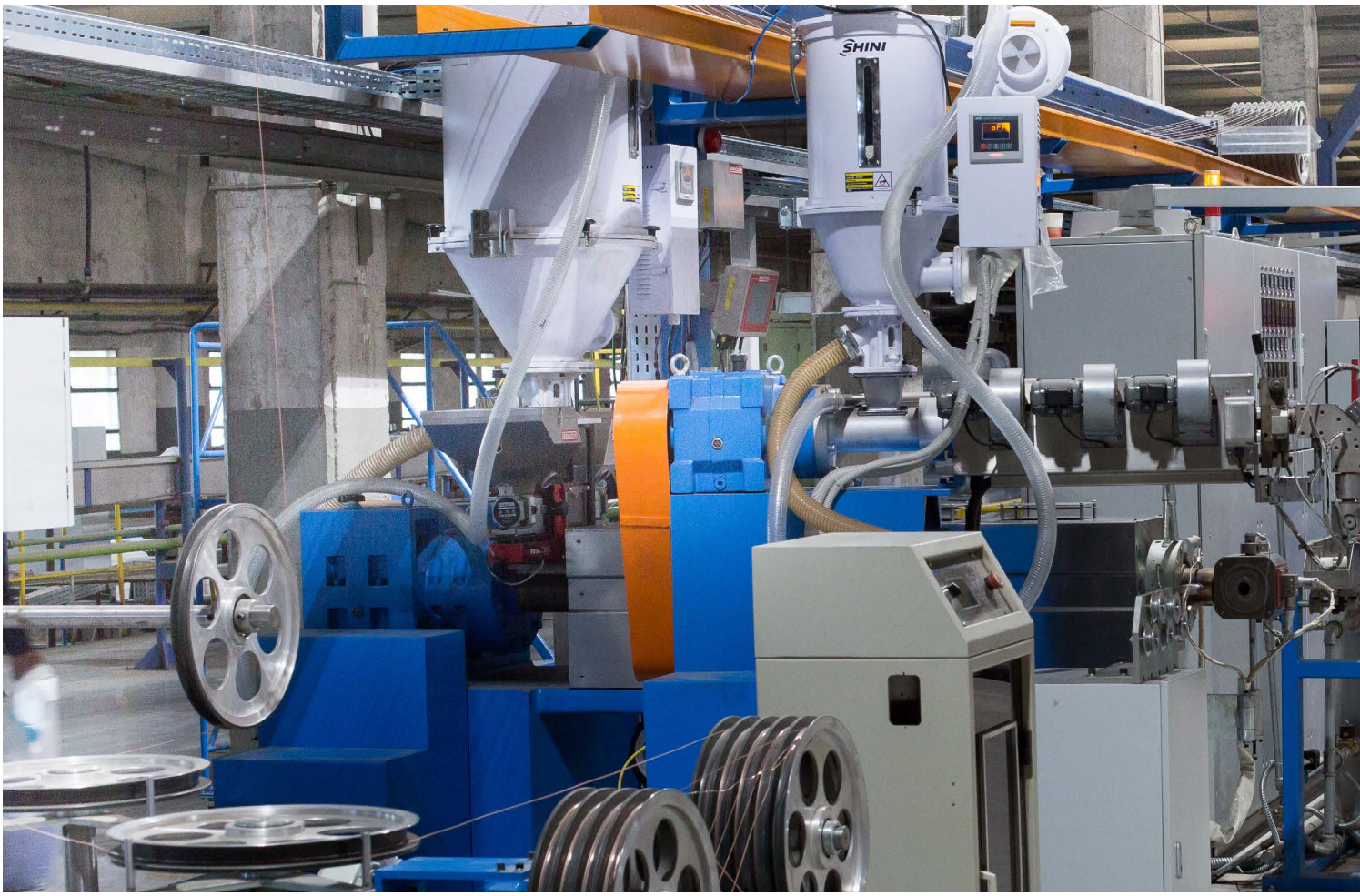
The **field of activity** of IPROEB includes the production and marketing of:

- low and medium voltage cables with copper and aluminum conductors, respectively insulated in PVC, rubber and polyethylene;
- aluminum and aluminum alloy bare conductors;
- aluminum conductors steel reinforced;
- galvanized steel wire conductors;
- steel wire ropes;
- composite insulators;
- equipments for automatic facilities.

IPROEB SA operates on the **Romanian market** for: power suppliers electricity companies, companies operating in the construction and assembly sector of high voltage power lines and electrical substations and companies operating in the construction sector using low and medium voltage cables and conductors for electrical installations.

IPROEB SA also operates on foreign markets for companies in Europe, directly or through zonal distributors.

Regarding the investment activity, IPROEB focused at the acquisition of **new equipment**: intermediate wire drawing machine for copper wires, stranding machines, extrusion



lines and modernization of existing processes, in order to diversify manufacturing and improve products quality.

IPROEB prioritizes the health and safety of its personnel, collaborators and visitors, the satisfaction of its customers, the protection of the environment and the development of the communities with which it interacts as an absolute and integrated priority; the entire organization is oriented toward achieving these goals openly and transparently.
IPROEB is committed to developing long term sustainable business, preventing pollution and minimizing the environmental impact of its operations, making the most efficient use of natural resources and energy.

IPROEB believes that its responsibility to reduce the environmental impact of its activities is also an opportunity to embrace innovation and technological change, engaging its partners in the value chain to add their efforts to achieve a cleaner future.
IPROEB SA has implemented the Quality Management System in accordance with ISO 9001: 2015, certified by TUV SUD Germany, The Environmental Management System in accordance with ISO 14001: 2015 and the Occupational Health and Safety Management System ISO 45001: 2018.

The products are tested and verified in our own testing laboratory, accredited by the national accreditation body RENAR Romania, in accordance with ISO 17025: 2015.

IPROEB products are certified and approved by certification bodies, recognized at national and international level such as: OICPE, AFER, INSEMEX.

THE **PRODUCT**

MEDIUM VOLTAGE CABLES

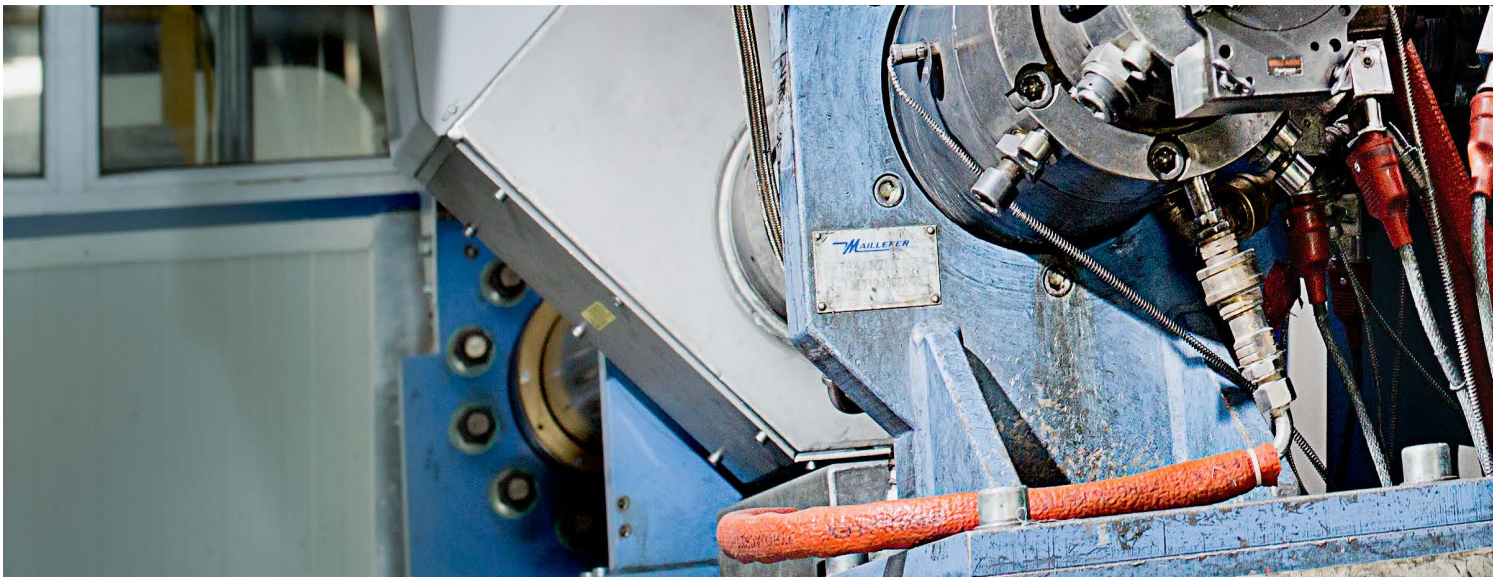
The medium voltage cables are produced of compacted stranded **aluminum conductors**.

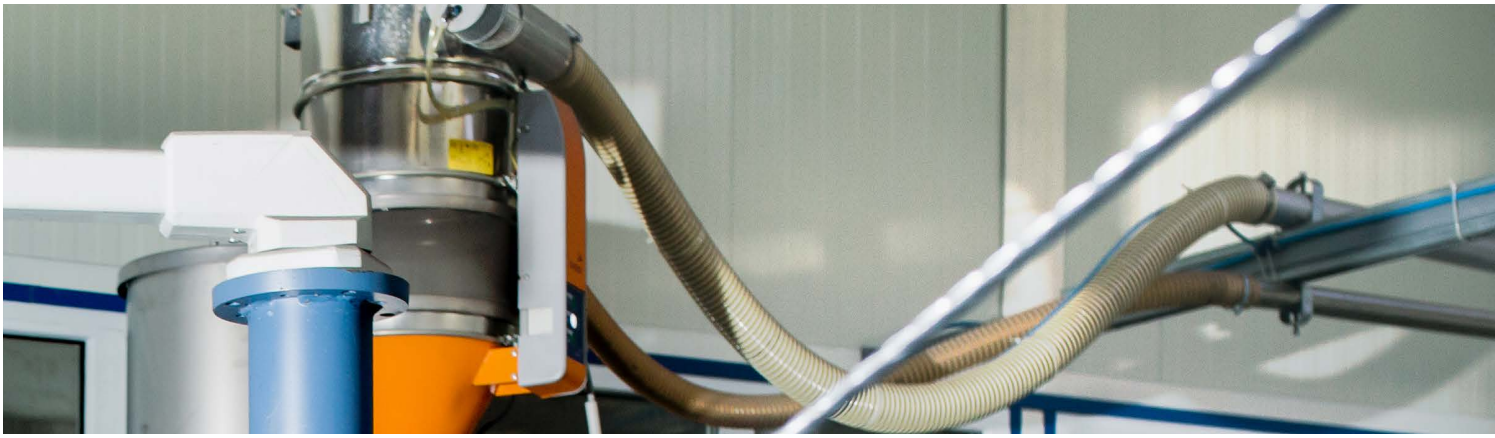
The inner semiconductor layer, XLPE insulation and the outer semiconductor layer (easily strippable) are applied by the process of triple extrusion and the crosslinking in nitrogen medium.

Aluminum tape screen with copolymer adhering to the polyethylene jacket is applied in the same manufacturing process.
The XLPE polyethylene insulation used in the manufacture of cables ensures a low level of dielectric losses.

The cables are intended for the construction of medium voltage power lines.
The cables are with transverse and longitudinal protection when penetrating the water.

The cables are in accordance with the **Global Standard GSC001 rev. 02/11.2018: Underground medium voltage cables**.






MAILLEFER
EXTRUSION

SCOPE AND TYPE OF EPD

The approach used in this EPD is "Cradle to grave", according to reference PCR

TABLE OF MODULES

MANUFACTURING STAGE		DISTRIBUTION STAGE	INSTALLATION STAGE	USE AND MAINTENANCE STAGE	END-OF-LIFE STAGE DE-INSTALLATION
UPSTREAM MODULE	CORE MODULE	DOWNSTREAM MODULE			

SOFTWARE: SimaPro ver. 9.2.0.1 (www.pre.nl)
MAIN DATABASE: Ecoinvent 3.6
REPORT LCA:LIFE CYCLE ASSESSMENT APPLIED TO CABLES FOR EPD PURPOSES
GEOGRAPHICAL SCOPE OF THE EPD: Worldwide
TYPE OF EPD: Product specific EPD
REFERENCE YEAR: 2020

Environmental declarations published within the same product category, though originating from different programs, may not be comparable.

DETAILED **PRODUCT DESCRIPTION**

The cables are designed for the construction of medium voltage power lines.

The cables are for fixed installation, may be directly buried in soil and may be used indoors, also in wet locations, or outdoors on walls on metallic structures.

The cables are with radial and longitudinal protection against water penetrates.

INFORMATION	CABLE		
PRODUCT IDENTIFICATION	**ARE4H5EX** Underground medium voltage cables, three single bundled cables, with aluminium conductors, cross-linked polyethylene (XLPE) insulation, laminated aluminium foil screen and polyethylene outer sheath, without reaction to fire class		
PRODUCT FEATURES	**General data**	**3 x (1 x 95)**	**3 x (1 x 185)**
	Maximum resistance of conductors at 20°C	0.320 Ω/km	0.164 Ω/km
	Maximum resistance of aluminium foil screen at 20°C	1.344 Ω/km	1.120 Ω/km
	Capacity (into the ground at 1 m depth, the temperature of conductors max. 90°C, the temperature of the soil 20°C, the thermal resistance of the soil 1°C m/W)	245 A	360 A
	Short-circuit thermal current (the short-circuit duration is 0.5s, the initial temperature of the conductors equals the maximum temperature allowed in a 90°C permanent régime and the final temperature of the conductors is 250°C)	12 kA	24 kA
	Approximative weight	2697 kg/km	3864 kg/km
PRODUCT PROPERTIES	ARE4H5EX cables are in accordance with the Global Standard GSC001 rev. 05 /11/2018		
MANUFACTURING PLANT	IPROEB SA, Bistrita		

CONTENT DECLARATION - EXCLUDING PACKAGING*

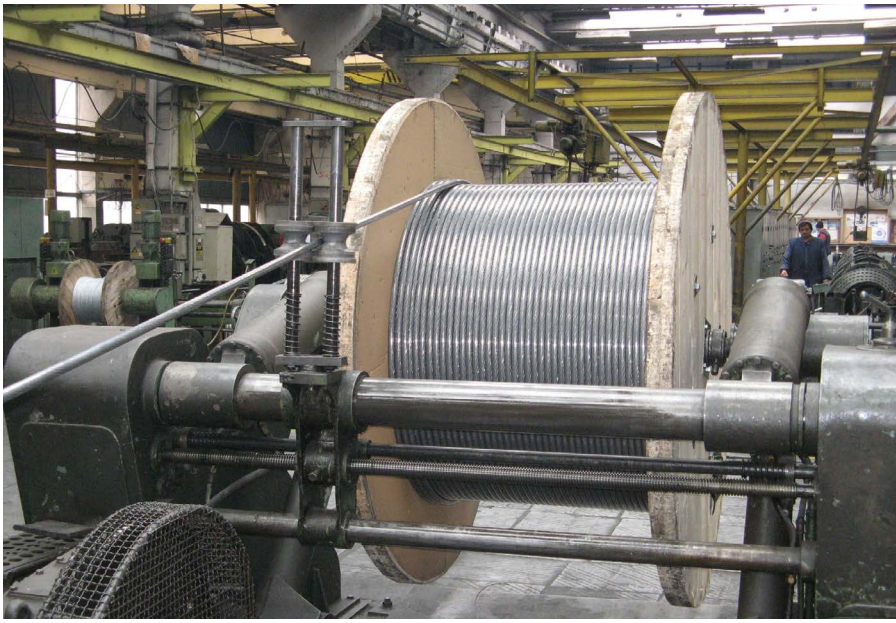
MATERIAL	MASS SHARE
ALUMINIUM	32 %
XLPE	36 %
PE	23 %
OTHER POLYMERS AND SEMICONDUCTIVE TAPES	9 %

*Cable packaging is composed by wooden drums which are recovered and reused after product delivery to the customer. For this reason packaging has been excluded from content declaration.

GENERAL **MANUFACTURING** SPECIFICATION

The aluminum wires are produced by drawing of aluminum rod of 9.5 mm.
The aluminium wires are stranded. Over conductor, the inner semiconductor layer, XLPE insulation and the outer semiconductor layer, are applied by the process of triple extrusion.

The process of the crosslinking occurs in nitrogen medium on triple extrusion line.
Over the insulated conductor a swelling semi-conducting tape is applied.
Then, the aluminum tape screen and the polyethylene jacket are applied in the same manufacturing process, on the jacket extrusion line.
The single phase cables are assembled together forming three-phase cable.
The last stage of manufacturing is final control.



ENVIRONMENTAL PERFORMANCE

The detailed environmental performance (in terms of potential environmental impacts, use of resources and waste generation) is presented for the three phases Upstream, Core and Downstream and related sub-phases.

DECLARED UNIT (D.U.) The declared unit is 1 km of cable manufactured in Iproeb headquarter in Bistrita

MV CABLES - 3*1*95

ENVIRONMENTAL IMPACTS - 3*1*95

POTENTIAL ENVIRONMENTAL IMPACTS	UNITS / D.U.	UPSTREAM + CORE PROCESS	DOWNSTREAM PROCESS				TOTAL
		MANUFACTURING STAGE	DISTRIBUTION STAGE	INSTALLATION STAGE	USE AND MAINTENANCE STAGE	END-OF-LIFE STAGE	
GWP	kg CO_2 eq	1,27E+04	1,90E+02	0,00E+00	3,86E+01	7,54E+02	**1,37E+04**
GWP,f	kg CO_2 eq	1,25E+04	1,90E+02	0,00E+00	3,86E+01	7,52E+02	**1,35E+04**
GWP,b	kg CO_2 eq	3,38E+01	1,11E-02	0,00E+00	5,70E-03	1,35E+00	**3,51E+01**
GWP,luluc	kg CO_2 eq	1,32E+02	1,54E-03	0,00E+00	2,47E-03	7,33E-01	**1,33E+02**
GWP,ghg	kg CO_2 eq	1,23E+04	1,89E+02	0,00E+00	3,78E+01	7,43E+02	**1,33E+04**
ODP	kg CFC11 eq	1,04E-03	4,51E-05	0,00E+00	1,68E-06	3,14E-05	**1,12E-03**
AP	mol H+ eq	6,92E+01	6,61E-01	0,00E+00	1,85E-01	2,21E+00	**7,23E+01**
EP,f	kg P eq	4,90E-01	9,73E-05	0,00E+00	1,88E-03	2,09E-02	**5,13E-01**
EP,m	kg N eq	1,07E+01	2,11E-01	0,00E+00	4,14E-02	4,19E-01	**1,13E+01**
EP,t	mol N eq	1,18E+02	2,33E+00	0,00E+00	4,60E-01	4,63E+00	**1,25E+02**
POCP	kg NMVOC eq	3,81E+01	6,34E-01	0,00E+00	1,18E-01	1,25E+00	**4,01E+01**
ADPE	kg Sb eq	1,37E-03	8,25E-06	0,00E+00	9,89E-07	7,95E-05	**1,46E-03**
ADPF	MJ	2,63E+05	2,69E+03	0,00E+00	7,87E+02	6,11E+03	**2,73E+05**
WDP	m^3	1,28E+03	-4,51E-01	0,00E+00	6,06E+00	3,26E+02	**1,61E+03**

GWP Global warming potential, total
GWP,f Global warming potential, fossil
GWP,b Global warming potential, biogenic
GWP,luluc Global warming potential, land use & land use change
GWP,ghg Global warming potential, excluding biogenic biogenic uptake, emission and storage
ODP Ozone depletion potential

AP Acidification Potential
EP,f Eutrophication potential, freshwater
EP,m Eutrophication potential, marine
EP,t Eutrophication potential, terrestrial
POCP Photochemical ozone creation potential
ADPE Abiotic depletion potential minerals & metals*
ADPF Abiotic depletion potential fossil fuels*
WDP Water use deprivation potential*

Additional environmental impact indicators are computed in the LCA report but not reported in the EPD.

**: The results of these environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.*

RESOURCE USE PER DECLARED UNIT - 3*1*95

POTENTIAL ENVIRONMENTAL IMPACTS	UNITS / D.U.	UPSTREAM + CORE PROCESS	DOWNSTREAM PROCESS				TOTAL
		MANUFACTURING STAGE	DISTRIBUTION STAGE	INSTALLATION STAGE	USE AND MAINTENANCE STAGE	END-OF-LIFE STAGE	
PERE	MJ	4,64E+04	4,13E+00	0,00E+00	1,98E+02	5,85E+02	**4,72E+04**
PERM	MJ	2,22E+04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**2,22E+04**
PERT	MJ	6,86E+04	4,13E+00	0,00E+00	1,98E+02	5,85E+02	**6,94E+04**
PENRE	MJ	2,04E+05	2,63E+03	0,00E+00	9,63E+02	7,70E+03	**2,16E+05**
PENRM	MJ	8,30E+04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**8,30E+04**
PENRT	MJ	2,87E+05	2,63E+03	0,00E+00	9,63E+02	7,70E+03	**2,99E+05**
SM	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**
FW	m^3	2,94E+02	7,39E-03	0,00E+00	1,36E-01	1,09E+01	**3,05E+02**

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

OUTPUT FLOWS AND WASTE CATEGORIES PER DECLARED UNIT - 3*1*95

POTENTIAL ENVIRONMENTAL IMPACTS	UNITS / D.U.	UPSTREAM + CORE PROCESS	DOWNSTREAM PROCESS				TOTAL
		MANUFACTURING STAGE	DISTRIBUTION STAGE	INSTALLATION STAGE	USE AND MAINTENANCE STAGE	END-OF-LIFE STAGE	
HWD	kg	3,72E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**3,72E+00**
NHWD	kg	2,10E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**2,10E+02**
RWD	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**0,00E+00**
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**0,00E+00**
MFR	kg	5,57E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**5,57E+01**
MER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**0,00E+00**
EE	MJ	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
CRU Components for re-use
MFR Materials for recycling
MER Materials for energy recovery
EE Exported energy

ENVIRONMENTAL PERFORMANCE

The detailed environmental performance (in terms of potential environmental impacts, use of resources and waste generation) is presented for the three phases Upstream, Core and Downstream and related sub-phases.

DECLARED UNIT (D.U.) The declared unit is 1 km of cable manufactured in Iproeb headquarter in Bistrita

MV CABLES - 3*1*185

ENVIRONMENTAL IMPACTS - 3*1*185

POTENTIAL ENVIRONMENTAL IMPACTS	UNITS / D.U.	UPSTREAM + CORE PROCESS	DOWNSTREAM PROCESS				TOTAL
		MANUFACTURING STAGE	DISTRIBUTION STAGE	INSTALLATION STAGE	USE AND MAINTENANCE STAGE	END-OF-LIFE STAGE	
GWP	kg CO_2 eq	1,93E+04	2,67E+02	0,00E+00	1,97E+01	1,08E+03	**2,06E+04**
GWP,f	kg CO_2 eq	1,89E+04	2,67E+02	0,00E+00	1,96E+01	1,08E+03	**2,03E+04**
GWP,b	kg CO_2 eq	6,24E+01	1,56E-02	0,00E+00	2,90E-03	1,93E+00	**6,43E+01**
GWP,luluc	kg CO_2 eq	2,54E+02	2,15E-03	0,00E+00	1,26E-03	1,05E+00	**2,55E+02**
GWP,ghg	kg CO_2 eq	1,87E+04	2,65E+02	0,00E+00	1,92E+01	1,06E+03	**2,00E+04**
ODP	kg CFC11 eq	1,67E-03	6,33E-05	0,00E+00	8,53E-07	4,50E-05	**1,77E-03**
AP	mol H+ eq	1,08E+02	9,26E-01	0,00E+00	9,41E-02	3,16E+00	**1,13E+02**
EP,f	kg P eq	7,99E-01	1,36E-04	0,00E+00	9,58E-04	2,99E-02	**8,30E-01**
EP,m	kg N eq	1,56E+01	2,96E-01	0,00E+00	2,11E-02	6,00E-01	**1,65E+01**
EP,t	mol N eq	1,72E+02	3,26E+00	0,00E+00	2,34E-01	6,63E+00	**1,83E+02**
POCP	kg NMVOC eq	5,75E+01	8,88E-01	0,00E+00	5,98E-02	1,79E+00	**6,02E+01**
ADPE	kg Sb eq	2,16E-03	1,16E-05	0,00E+00	5,04E-07	1,14E-04	**2,29E-03**
ADPF	MJ	3,79E+05	3,78E+03	0,00E+00	4,01E+02	8,76E+03	**3,92E+05**
WDP	m^3	1,78E+03	-6,31E-01	0,00E+00	3,08E+00	4,67E+02	**2,25E+03**

GWP Global warming potential, total
GWP,f Global warming potential, fossil
GWP,b Global warming potential, biogenic
GWP,luluc Global warming potential, land use & land use change
GWP,ghg Global warming potential, excluding biogenic biogenic uptake, emission and storage
ODP Ozone depletion potential

AP Acidification Potential
EP,f Eutrophication potential, freshwater
EP,m Eutrophication potential, marine
EP,t Eutrophication potential, terrestrial
POCP Photochemical ozone creation potential
ADPE Abiotic depletion potential minerals & metals*
ADPF Abiotic depletion potential fossil fuels*
WDP Water use deprivation potential*

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RESOURCE USE PER DECLARED UNIT - 3*1*185

POTENTIAL ENVIRONMENTAL IMPACTS	UNITS / D.U.	UPSTREAM + CORE PROCESS	DOWNSTREAM PROCESS				TOTAL
		MANUFACTURING STAGE	DISTRIBUTION STAGE	INSTALLATION STAGE	USE AND MAINTENANCE STAGE	END-OF-LIFE STAGE	
PERE	MJ	8,06E+04	5,79E+00	0,00E+00	1,01E+02	8,39E+02	**8,15E+04**
PERM	MJ	2,96E+04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**2,96E+04**
PERT	MJ	1,10E+05	5,79E+00	0,00E+00	1,01E+02	8,39E+02	**1,11E+05**
PENRE	MJ	3,14E+05	3,69E+03	0,00E+00	4,90E+02	1,10E+04	**3,29E+05**
PENRM	MJ	1,03E+05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**1,03E+05**
PENRT	MJ	4,17E+05	3,69E+03	0,00E+00	4,90E+02	1,10E+04	**4,32E+05**
SM	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**
FW	m^3	5,25E+02	1,04E-02	0,00E+00	6,93E-02	1,56E+01	**5,41E+02**

PERE Use of renewable primary energy excluding renewable primary energy resources used as raw materials
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PENRE Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials
PENRM Use of non-renewable primary energy resources used as raw materials
PENRT Total use of non-renewable primary energy resources
SM Use of secondary raw materials
RSF Use of renewable secondary fuels
NRSF Use of non-renewable secondary fuels
FW Use of net fresh water

OUTPUT FLOWS AND WASTE CATEGORIES PER DECLARED UNIT - 3*1*185

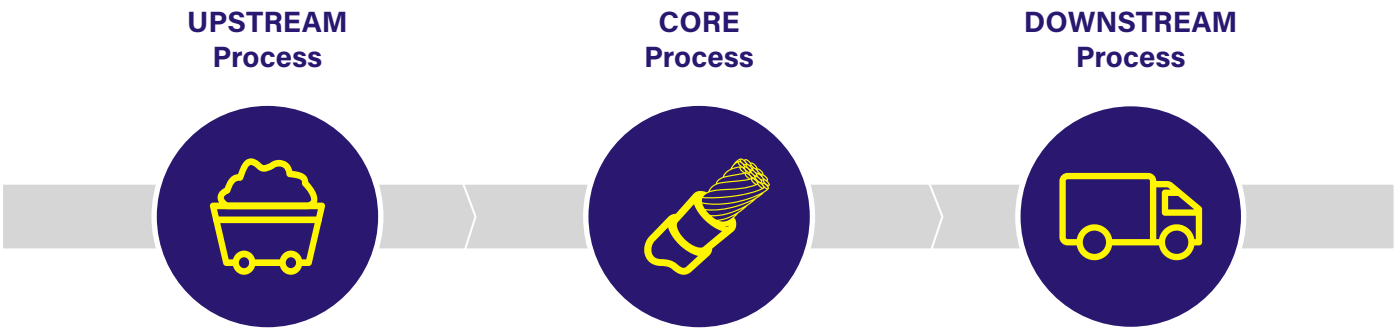
POTENTIAL ENVIRONMENTAL IMPACTS	UNITS / D.U.	UPSTREAM + CORE PROCESS	DOWNSTREAM PROCESS				TOTAL
		MANUFACTURING STAGE	DISTRIBUTION STAGE	INSTALLATION STAGE	USE AND MAINTENANCE STAGE	END-OF-LIFE STAGE	
HWD	kg	4,41E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**4,41E+00**
NHWD	kg	2,47E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**2,47E+02**
RWD	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**0,00E+00**
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**0,00E+00**
MFR	kg	5,79E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**5,79E+01**
MER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	**0,00E+00**
EE	MJ	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
CRU Components for re-use
MFR Materials for recycling
MER Materials for energy recovery
EE Exported energy

CALCULATION RULES

According to reference PCR the main activities are listed and divided in three subsystems. Results are reported accordingly

- **UPSTREAM Process**
- **CORE Process**
- **DOWNSTREAM Process**



LCA METHODOLOGY

The environmental burden of the product has been processed according to the general rules of the EPDItaly and reference PCR.

This declaration is based on the application of Life Cycle Assessment (LCA) methodology to the whole life-cycle system, using Iproeb primary data related to 2020.

Customized LCA questionnaires were used to gather in-depth information about all aspects of the production system (for example, raw materials specifications, pre-treatments, process efficiencies, air emissions, waste management), ultimately providing a complete picture of the environmental burden of the system.

Environmental impacts of the use phase are calculated considering 1 A of electric load. Real energy losses can be computed by multiplying the impact by the actual current intensity of the cable.

UPSTREAM + CORE
PROCESS

TREATMENT OF PROCESS WASTE

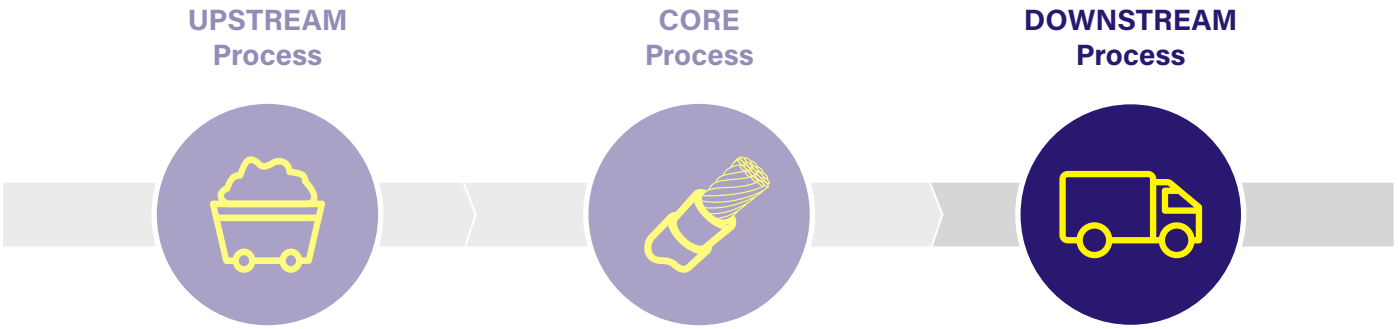
CABLE MANUFACTURING PROCESS

EXTRACTION AND PROCESSING OF RAW MATERIALS

GENERATION OF ELECTRICITY FROM NATIONAL GRID

TRANSPORT OF RAW MATERIALS ALONG THE SUPPLY CHAIN TO THE MANUFACTURING PLANT

DOWNSTREAM
PROCESS



PRODUCT DELIVERY
TO THE CUSTOMER

ENERGY DISSIPATION
DURING USE PHASE

DECOMMISSIONING
AND END OF LIFE

ADDITIONAL ENVIRONMENTAL INFORMATION

From 2006, IPROEB has implemented the Environmental Management System according to the ISO 14001:2015, having identified the criteria and methods necessary to identify, eliminate and / or minimize aspects with negative impact on the environment, both on the company's staff and third parties.

For the reduction of greenhouse gases, Iproeb SA has subscribed, adopted and implemented the principles of ISO 14067: 2018 and based on the CFP study report issued on 19.03.2021 it has obtained the certificate no. A022/ 29.03.2021, issued by IMQ Italia for the CCBYY cable.

All equipment is equipped with exhaustive systems and dust collecting systems, mounted on the floor that are guided by a centrifugal fan to cyclones provided with ventilation systems.

Water is used for technological purposes as cooling water, in a closed circuit during extrusion operations. The water is cooled in the cooling tower, in a closed circuit, with evaporator system type BAC VXI 50 - 4 with the help of a set of coils and recirculation pumps.

The activity does not result in toxic compounds that have negative effects on the environment, terrestrial ecosystems not being influenced.
The IPROEB company in collaboration with Life Cycle Engineering has started the life cycle assessment for some of the manufactured products, according to the main normative guidelines provided in the ISO 14040: 2021 and ISO 14044: 2021 standards.

The impact on the environment has been assessed in accordance with standard EN 15804 + A2: 2019.
The study evaluated the specific environmental emission factors / impact indicators, which are updated periodically.

ISSUED
Quality Manager
Alina TIMAR

Chief of Technical department
Silvia MEZOFI

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