

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

STABILOY® Brand Service Entrance Cable (SER) UL Type SE, Style R, Multi-Conductor, 600V

STABILOY® Brand Service Entrance Cable (SEU) UL Type SE, Style U, Multi-Conductor, 600V



With 150 years of experience in over 50 countries around the globe, Prysmian is the world leader in the energy and telecom cable industry. Prysmian offers the broadest range of services and know-how in the industry. Each year, Prysmian manufactures thousands of miles of underground and submarine cables and systems for power transmission and distribution, as well as medium and low voltage cables for the construction and infrastructure sectors. The company produces a comprehensive range of optical fibers, copper cables, and connectivity systems for voice, video, and data transmission for the telecommunication sector.

Prysmian is a leader in the industry and a pioneer in sustainability initiatives. The company has adopted a science-based approach and adheres to EPA standards to achieve net-zero emission targets for Scope 1 and 2 by 2035 and Scope 3 by 2050.



Prysmian's Low Voltage Aluminum Service Entrance Cable line consists of STABILOY® Brand Service Entrance Cable UL Type SE, Style U, Style R. Our high-quality aluminum service entrance cable is manufactured in the U.S. and delivers long-term, reliable performance in many building applications.



Environmental Product Declaration



Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

This declaration is an environmental product declaration (EPD) in accordance with ISO 14025 and EN 15804+A2. EPDs rely on Life Cycle Assessment (LCA) to provide information on a number of environmental impacts of products over their life cycle. Exclusions: EPDs do not indicate that any environmental or social performance benchmarks are met, and there may be impacts that they do not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. EPDs can complement but cannot replace tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc. Accuracy of Results: EPDs regularly rely on estimations of impacts, and the level of accuracy in estimation of effect differs for any particular product line and reported impact. Comparability: EPDs are not comparative assertions and are either not comparable or have limited comparability when they cover different life cycle stages, are based on different product category rules or are missing relevant environmental impacts. EPDs from different programs may not be comparable.

EPD PROGRAM AND PROGRAM OPERATOR NAME, ADDRESS, LOGO, AND WEBSITE	ASTM International 100 Barr Harbor Drive West Conshohocken, PA 19428
GENERAL PROGRAM INSTRUCTIONS AND VERSION NUMBER	General Program Instructions. Version 8.0. April 29, 2020.
MANUFACTURER NAME AND ADDRESS	Prysmian Group 4 Tesseneer Road Highland Heights, KY 41076
DECLARATION NUMBER	EPD844
DECLARED PRODUCT & FUNCTIONAL UNIT OF DECLARED UNIT	Prysmian Low Voltage Aluminum Service Entrance Cable Functional Unit = energy transmission expressed for 1A over a distance of 1km during 40 years and a 100% use rate, in accordance with the relevant standards shown in the product technical data sheets.
REFERENCE PCR AND VERSION NUMBER	Product Category Rules for Electrical, Electronic and HVAC-R Products, v4.0, 2021. PEP ecopassport Program: Product Specific Rules for Wires, Cables and Accessories, v4.0, 2022.
DESCRIPTION OF PRODUCT APPLICATION/USE	These Prysmian cable products are primarily used in building applications.
PRODUCT REFERENCE SERVICE LIFE (RSL) DESCRIPTION	40 Years
MARKETS OF APPLICABILITY	North America
DATE OF ISSUE	December 13, 2024
PERIOD OF VALIDITY	5 Years
EPD TYPE	Product Specific
DATASET VARIABILITY	N/A
EPD SCOPE	Cradle-to-Grave
YEAR(S) OF REPORTED PRIMARY DATA	2023
LCA SOFTWARE & VERSION NUMBER	LCA for Experts v10.7.0.183
LCI DATABASE(S) & VERSION NUMBER	Sphera & USLCI v2.0
LCIA METHODOLOGY & VERSION NUMBER	TRACI 2.1; CML 4.1
The sub-category PCR review was conducted by:	
This declaration was independently verified in accordance with ISO 14025: 2006. The "PEP ecopassport Program: Product Category Rules for Electrical, Electronic and HVAC-R Products, v4.0, 2021." based on EN 15804:2012+A2:2019, serves as the core PCR. The supporting PSR is the "PEP ecopassport Program: Product Specific Rules for Wires, Cables and Accessories, v4.0, 2022."	
<input type="checkbox"/> INTERNAL <input checked="" type="checkbox"/> EXTERNAL	
<div>  Timothy S Brooke </div>	
This life cycle assessment was conducted in accordance with ISO 14044 and the reference PCR by:	
<div>  Thomas P Gloria, Ph. D </div>	
This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:	
<div> Industrial Ecology Consultants </div>	

Environmental declarations from different programs (ISO 14025) may not be comparable.

Comparison of the environmental performance using EPD information shall consider all relevant information modules over the full life cycle of the products within the building.

This PCR allows EPD comparability only when the same functional requirements between products are ensured and the requirements of EN 15804:2012+A2:2019 are met. It should be noted that different LCA software and background LCI datasets may lead to differences results for upstream or downstream of the life cycle

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

General Information

Description of Company/Organization

Prysmian, a global provider of cabling solutions, is leading the charge in the energy transition and digital transformation. With 150 years of experience in over 50 countries around the globe, the company's business strategy is a testament to its understanding of market dynamics, focusing on the development of resilient, high-performing, sustainable, and innovative cable solutions across the Transmission, Power Grid, Electrification, and Digital Solutions segments.

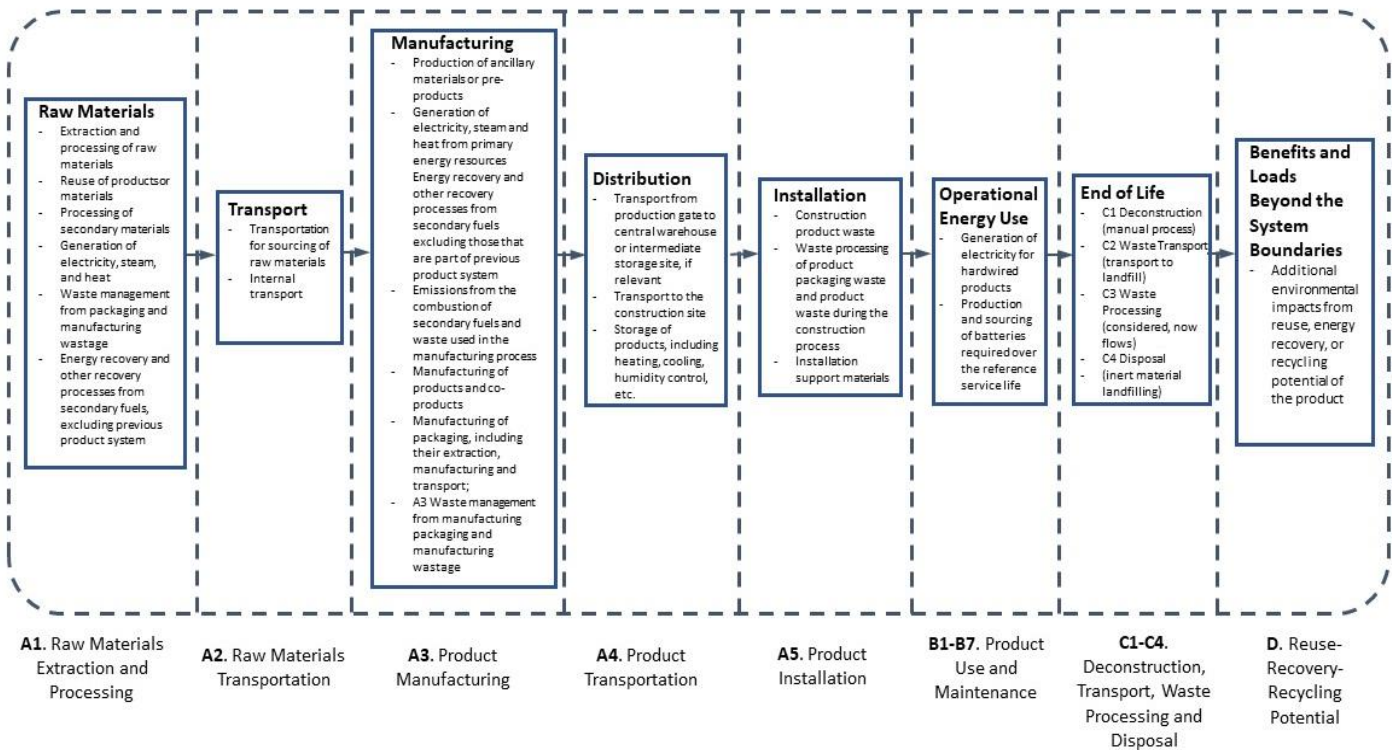
Product Description

Prysmian's **STABILOY® Brand Service Entrance Cable** is made with STABILOY® Brand AA-8000 aluminum alloy conductors which are lightweight and provide increased flexibility for easy installation. The conductors are insulated with cross-linked polyethylene with varying levels of flame-retardant and sunlight-resistant gray color Polyvinyl Chloride (PVC).

Additional features include:

- Oil Resistant PRI/PRII
- Gas and Oil Res GRI/GRII
- UV/sunlight-resistant, moisture-resistant and flame-retardant insulation
- Excellent electrical, thermal and physical properties
- Meets cold bend and cold impact tests at -40°C

Flow Diagram



Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

Manufacturer Specific EPD

This product-specific EPD was developed based on the cradle-to-grave (modules A1-D) life cycle assessment. The EPD accounts for raw material extraction and processing, transport, product manufacturing, distribution, installation, use, maintenance, disposal, and potential benefits and loads following the end of life disposal. Manufacturing data were gathered directly from company personnel. For EPDs with product groups, an impact assessment was completed for each product and the highest impacts were reported as representations of the product group. The rest of the products in each group are represented through scaling factor tables and can be independently calculated.

Application

Prysmian's STABILOY® Brand SER and SEU cables are used in service and feeder applications for dwelling units and other interior wiring applications. Above-ground service entrance and branch circuit. Maximum operating temperature not to exceed 90°C in wet or dry locations. 600 V approved for use as specified by the NEC®.

Material Composition

The primary product components and/or materials must be indicated as a percentage mass to enable the user of the EPD to understand the composition of the product in delivery status.

The average composition of a Prysmian STABILOY® Aluminum SER 250 kcmil, 4-Conductor cable with 3/0 AWG Drain Wire cable is as follows:

Material	Percentage in mass (%)
	Maximum
Colorant	1.19%
Conductor	74.59%
Insulation	14.62%
Jacketing	8.95%
Tape	0.66%
Other	0.00%
Total	100.00%

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

Technical Details

For the declared product, the following technical data in the delivery status must be provided with reference to the test standard:

Technical Data	
General Specifications	
Conductor	8 AWG thru 2 AWG Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801 1 AWG thru 300 kcmil compact stranded SIW aluminum alloy (8000 Series) per ASTM B800, ASTM B801 and ASTM B836
Insulation	Cross-linked polyethylene with varying levels of flame-retardant or Type XHHW-2
Jacket	Sunlight-resistant Polyvinyl Chloride (PVC), gray
Features	Oil Resistant PRI/PRII, Gas and Oil Res GRI/GRII, UV/sunlight-resistant, moisture-resistant and flame-retardant insulation

STABILOY® Brand Service Entrance Cable (SEU)

XLPE, Low-Voltage Power

600 V, UL Type SE Style U, Multi-Conductor, Aluminum

Product Construction:**Conductor:**

- 8 AWG thru 2 AWG Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801
- 1 AWG thru 4/0 AWG compact stranded SIW aluminum alloy (8000 Series) per ASTM B800, ASTM B801 and ASTM B836

Insulation:

- Flame-retardant Cross-linked Polyethylene (XLPE)
- Type XHHW-2

Jacket:

- Sunlight-resistant Polyvinyl Chloride (PVC), gray

Print:

- GENERAL CABLE® (PLANT OF MFG)
STABILOY® AA-8030 AL TYPE SE CABLE
STYLE U XHHW-2 600 V 2 CDRS SIZE AWG (MM²) 1 CDR SIZE AWG (MM²) SUN RES (UL)
YEAR DATE (TIME OF MFG) SEQUENTIAL FOOTAGE

Applications:

- STABILOY® Brand SEU cable is used in service and feeder applications for dwelling units and other interior wiring applications
- Above-ground service entrance and branch circuit
- Maximum operating temperature not to exceed 90°C in wet or dry locations
- 600 V approved for use as specified by the NEC®

Features:

- Oil Resistant PRI/PRII
- Gas and Oil Res GRI/GRII
- UV/sunlight-resistant, moisture-resistant and flame-retardant insulation
- Excellent electrical, thermal and physical properties
- Smaller cable O.D.
- Meets cold bend and cold impact tests at -40°C

Compliances:**Industry Compliances:**

- UL 854 Type SE Style U, UL File #E39725
- UL 44 for Types RHH and RHW-2, UL File #E39406
- National Electrical Code (NEC®)

Flame Test Compliances:

- UL 1581, Vertical Flame 1061

Other Compliances:

- OSHA Acceptable
- RoHS Compliant

Packaging:

- Material available in standard packages and shipped on non-returnable wood reels



PHASE CONDUCTORS					BARE GROUND			NOMINAL CABLE DIAMETER		ALUMINUM CONDUCTOR WEIGHT		NET WEIGHT		AMPACITY (1) 30°C AMBIENT	
SIZE		NO. OF WIRES	INS. THKN.		SIZE		NO. OF WIRES								
AWG	mm ²		IN	mm	AWG	mm ²									
8 AWG - 4/0 AWG CONDUCTORS															
8	8.4	7	0.045	1.14	8	8.4	6	0.398 x 0.622	10.1 x 15.8	47	70	100	149	40	45
6	13.3	7	0.045	1.14	6	13.3	8	0.441 x 0.700	11.2 x 17.8	74	110	135	201	50	55
4	21.1	7	0.045	1.14	6	13.3	8	0.485 x 0.788	12.3 x 20.0	104	155	174	259	65	75
4	21.1	7	0.045	1.14	4	21.1	12	0.488 x 0.791	12.4 x 20.1	118	176	189	281	65	75
2	33.6	7	0.045	1.14	4	21.1	12	0.543 x 0.901	13.8 x 22.9	165	246	248	369	90	100
2	33.6	7	0.045	1.14	2	33.6	19	0.543 x 0.901	13.8 x 22.9	188	280	271	403	90	100
1*	42.4	8	0.055	1.40	1	42.4	19	0.607 x 1.015	15.4 x 25.8	236	351	342	509	100	115
1/0*	53.5	10	0.055	1.40	2	33.6	19	0.566 x 1.013	14.4 x 25.7	261	388	377	561	120	135
1/0*	53.5	10	0.055	1.40	1/0	53.5	24	0.646 x 1.093	16.4 x 27.8	298	443	415	618	120	135
2/0	67.4	12	0.055	1.40	1	42.4	19	0.683 x 1.166	17.3 x 29.6	329	490	456	679	135	150
2/0	67.4	12	0.055	1.40	2/0	67.4	24	0.700 x 1.183	17.8 x 30.0	376	560	504	750	135	150
3/0*	85.0	16	0.055	1.40	3/0	85.0	24	0.765 x 1.296	19.4 x 32.9	474	705	616	917	155	175
4/0	107.2	19	0.055	1.40	2/0	67.4	24	0.796 x 1.376	22.2 x 35.0	524	780	680	1012	180	205
4/0	107.2	19	0.055	1.40	4/0	107.2	24	0.835 x 1.415	21.2 x 35.9	598	890	756	1125	180	205

Dimensions and weights are nominal; subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities per NEC® Table 310.15(B)(16). Adjustment and corrections may apply.

STABILOY® Brand Service Entrance Cable (SER)

XLPE, Low-Voltage Power

600 V, UL Type SE Style R, Multi-Conductor, Aluminum

**Product Construction:****Conductor:**

- 8 AWG thru 2 AWG Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801
- 1 AWG thru 300 kcmil compact stranded SIW aluminum alloy (8000 Series) per ASTM B800, ASTM B801 and ASTM B836

Insulation:

- Flame-retardant Cross-linked Polyethylene (XLPE)
- Type XHHW-2

Jacket:

- Sunlight-resistant Polyvinyl Chloride (PVC), gray

Print:

- GENERAL CABLE® (PLANT OF MFG) STABILOY® AA-8030 AL TYPE SE CABLE STYLE R XHHW-2 600 V (NUMBER OF CONDUCTORS) CDRS SIZE (AWG OR KCMIL) (MM²) 1 CDR SIZE AWG (MM²) SUN RES (UL) YEAR DATE (TIME OF MFG) SEQUENTIAL FOOTAGE

Applications:

STABILOY® Brand SER cable is used in service and feeder applications for dwelling units and other interior wiring applications

- Above-ground service entrance and branch circuit
- Maximum operating temperature not to exceed 90°C in wet or dry locations
- 600 V approved for use as specified by the NEC®

Features:

- Oil Resistant PRI/PRII
- Gas and Oil Res GRI/GRII
- UV/sunlight-resistant, moisture-resistant and flame-retardant insulation
- Excellent electrical, thermal and physical properties
- Meets cold bend and cold impact tests at -40°C

Compliances:**Industry Compliances:**

- UL 854 Type SE Style U, UL File #E39725
- UL 44 for Types RHH and RHW-2, UL File #E39406

National Electrical Code (NEC®)**Flame Test Compliances:**

- UL 1581, Vertical Flame 1061

Other Compliances:

- OSHA Acceptable
- RoHS Compliant

Packaging:

- Material available in standard packages and shipped on non-returnable wood reels

PHASE CONDUCTORS					BARE GROUND		NOMINAL CABLE DIAMETER		ALUMINUM CONDUCTOR WEIGHT		NET WEIGHT		AMPACITY (1) 30°C AMBIENT	
SIZE		NO. OF WIRES	INS. THKN.		SIZE									
AWG	mm²			IN	mm	AWG	mm²	IN	mm	LBS/ 1000 FT	kg/km	LBS/1000 FT	kg/km	@75°C
TWO CONDUCTOR SER WITH A BARE GROUND														
8*	8.4	7	0.045	1.14	8	8.4	0.514	13.06	46	68	98	146	40	45
6	13.3	7	0.045	1.14	6	13.3	0.584	14.83	74	110	134	199	50	60
4	21.1	7	0.045	1.14	6	13.3	0.672	17.07	103	153	174	259	65	75
4*	21.1	7	0.045	1.14	4	21.1	0.673	17.09	117	174	189	281	65	75
2*	33.6	7	0.045	1.14	4	21.1	0.782	19.86	164	244	250	372	90	100
2*	33.6	7	0.045	1.14	2	33.6	0.787	19.99	187	278	273	406	90	100
1*	42.4	8	0.055	1.40	1	42.4	0.885	22.48	236	351	344	512	100	115
1/0*	53.5	10	0.055	1.40	2	33.6	0.960	24.38	260	387	385	573	120	135
1/0*	53.5	10	0.055	1.40	1/0	53.5	0.967	24.56	297	442	424	631	120	135
2/0*	67.4	12	0.055	1.40	1	42.4	1.033	26.24	328	488	466	693	135	150
2/0*	67.4	12	0.055	1.40	2/0	67.4	1.044	26.52	375	558	515	766	135	150
4/0	107.2	19	0.055	1.40	2/0	67.4	1.226	31.14	522	777	695	1034	180	205
4/0*	107.2	19	0.055	1.40	4/0	107.2	1.248	31.70	596	887	772	1149	180	205
THREE CONDUCTOR SER WITH A BARE GROUND														
8	8.4	7	0.045	1.14	8	8.4	0.579	14.71	62	92	128	190	40	45
6	13.3	7	0.045	1.14	6	13.3	0.675	17.15	98	146	177	263	50	60
4	21.1	7	0.045	1.14	6	13.3	0.745	18.92	142	211	234	348	65	75
2	33.6	7	0.045	1.14	4	21.1	0.884	22.45	226	336	338	503	90	100
1	42.4	8	0.055	1.40	3	26.7	0.992	25.20	285	424	433	644	100	115
1/0	53.5	10	0.055	1.40	2	33.6	1.090	27.69	359	534	526	783	120	135
2/0	67.4	12	0.055	1.40	1	42.4	1.182	30.02	453	674	638	949	135	150
3/0	85.0	16	0.055	1.40	1/0	53.5	1.303	33.10	571	850	780	1161	155	175
4/0	107.2	19	0.055	1.40	2/0	67.4	1.423	36.14	720	1071	955	1421	180	205
250	126.7	23	0.065	1.65	3/0	85.0	1.580	40.13	860	1280	1147	1707	205	230
300	152.0	22	0.065	1.65	4/0	107.2	1.719	43.66	1042	1551	1360	2024	230	255
FOUR CONDUCTOR SER WITH A BARE GROUND														
2	33.6	7	0.045	1.14	4	21.1	0.995	25.27	288	429	427	635	90	100
2/0	67.4	12	0.055	1.40	1	42.4	1.331	33.81	577	859	810	1205	135	150
4/0	107.2	19	0.055	1.40	2/0	67.4	1.600	40.64	918	1366	1213	1805	180	205
250	126.7	23	0.065	1.65	3/0	85.0	1.775	45.09	1095	1630	1456	2167	205	230
300*	152.0	22	0.065	1.65	4/0	107.2	1.928	48.97	1323	1969	1724	2566	230	255

Dimensions and weights are nominal; subject to industry tolerances.

* Non-stock item; minimum runs apply. Please consult Customer Service for price and delivery.

(1) Ampacities per NEC® Table 310.15(B)(16). Adjustment and corrections may apply.



Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

Placing on the Market / Application Rules

The standards that can be applied for STABILOY® Brand Service Entrance Cable are:

- ASTM B800, ASTM B801, ASTM B836
- UL 854 Type SE Style U or Style R
- UL 44 for Types XHHW-2
- National Electrical Code (NEC®)
- UL 1581, Vertical Flame 1061
- OSHA Acceptable
- RoHS Compliant

Properties of Declared Product as Shipped

Prysmian Low Voltage Aluminum Service Entrance Cables are cut on standard lengths, packed in no-returnable coils and delivered as a complete product.

Methodological Framework

Functional Unit

Name	Value	Unit
Functional unit	energy transmission expressed for 1A over a distance of 1km during 40 years and a 100% use rate, in accordance with the relevant standards shown in the product technical data sheets.	
Maximum Mass	2279	kg/km
Conversion factor to 1 kg	0.0004	-

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

System Boundary

This is a cradle to grave Environmental Product Declaration. The following life cycle phases were considered:

Product Stage			Construction Process Stage		Use Stage							End of Life Stage*				Benefits and Loads Beyond the System Boundaries
Raw material supply	Transport	Manufacturing	Transport from gate to the site	Construction/ installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction /demolition	Transport	Waste processing	Disposal	Reuse-Recovery- Recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Description of the System Boundary Stages Corresponding to the PCR

(X = Included; MND = Module Not Declared)

*This includes provision of all materials, products and energy, packaging processing and its transport, as well as waste processing up to the end-of waste state or disposal of final residues.

Reference Service Life

The reference service life of a properly installed Prysmian STABILOY® Aluminum SER 250 kcmil, 4-Conductor cable with 3/0 AWG Drain Wire cable is 40 years.

Allocation

Allocation of the manufacturing inputs and outputs at the plant in Sedalia was determined by mass, in kilogram per kilometer.

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

Cut-off Criteria

Processes whose total contribution to the final result, with respect to their mass and in relation to all considered impact categories, is less than 1% can be neglected. The sum of the neglected processes may not exceed 5% by mass of the considered impact categories. For that a documented assumption is admissible.

For Hazardous Substances the following requirements apply:

- The Life Cycle Inventory (LCI) of hazardous substances will be included, if the inventory is available.
- If the LCI for a hazardous substance is not available, the substance will appear as an input in the LCI of the product, if its mass represents more than 0.1% of the product composition.
- If the LCI of a hazardous substance is approximated by modeling another substance, documentation will be provided.

This EPD is in compliance with the cut-off criteria. No processes were neglected or excluded. Capital items for the production processes (machine, buildings, etc.) were not taken into consideration.

Data Sources

Primary data were collected for every process in the product system under the control of Prysmian. Secondary data from the Sphera database were utilized when necessary. These data were evaluated and have temporal, geographic, and technical coverage appropriate to the scope of the product category.

Data Quality

The data sources used are complete and representative of global systems in terms of the geographic and technological coverage and are a recent vintage (i.e. less than ten years old). The data used for primary data are based on direct information sources of the manufacturers. Secondary data sets were used for raw materials extraction and processing, end of life, transportation, and energy production flows. Wherever secondary data is used, the study adopts critically reviewed data for consistency, precision, and reproducibility to limit uncertainty.

Period Under Review

The period under review is the full calendar year of 2023.

Treatment of Biogenic Carbon

The uptake and release of biogenic carbon throughout the product life cycle follows EN15805+A2 Section 6.4.4.

Comparability and Benchmarking

A comparison or an evaluation of EPD data is only possible if all data sets to be compared were created according to EN 15804+A2 and the building context, respectively the product-specific characteristics of performance, are taken into account. Environmental declarations from different programs may not be comparable. Full conformance with the PCR allows for EPD comparability only when all stages a product's life cycle have been considered. However, variations and deviations are possible.

Estimates and Assumptions

End of Life

In the End of Life phase, aluminum is assumed to have a 70% recycling rate in accordance with the PEP PCR.

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

Units

The LCA results within this EPD are reported in SI units.

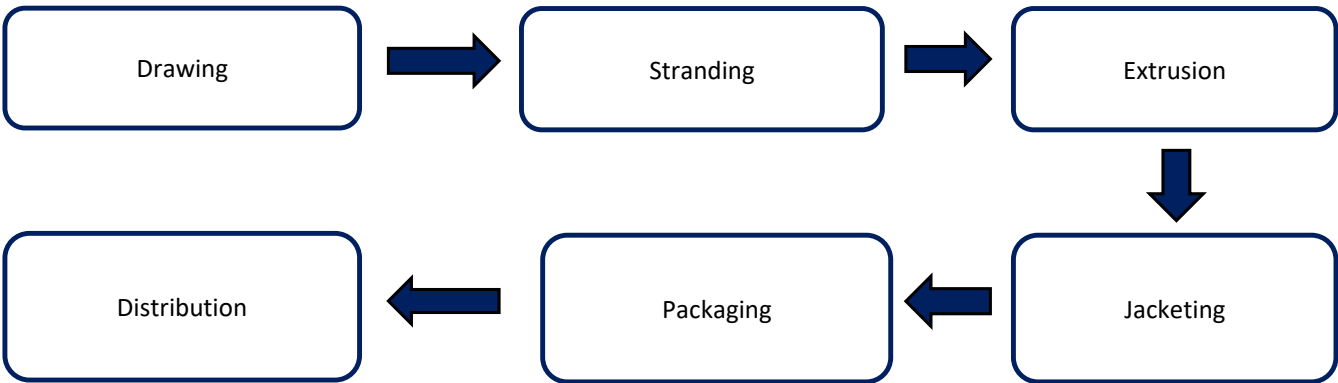
Additional Environmental Information

Background data

For life cycle modeling of the considered products, the LCA for Experts Software System for Life Cycle Engineering, developed by Sphera, is used. The Sphera database contains consistent and documented datasets which are documented online. To ensure comparability of results in the LCA, the basic data of the Sphera database were used for energy, transportation, and auxiliary materials.

Manufacturing

This study includes the impacts from five of Prysmian's manufacturing facilities which produce building wire. Conductor materials come either pre-drawn or go through a drawing process at the manufacturing site. The conductor then goes through a stranding process. Jacketing is extruded to size and applied to cables as appropriate along with any insulation or additional cable components. The cables are packaged on reels and sent to customer.



Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

Packaging

All packaging is fully recyclable. The packaging material is composed of a wooden or steel reel.

Material	Quantity (% By Weight)
	Maximum
Wood	100.00%
Total	100.00%

Transportation

Transport to Building Site (A4)		
Name	Max	Unit
Fuel type	Diesel	
Liters of fuel	38	l/100km
Transport distance	800	km
Capacity utilization (including empty runs)	85	%
Gross density of products transported	-	kg/m ³
Weight of products transported	2279	kg
Volume of products transported	-	m ³

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

Product Installation

Prysmian has established guidelines in HSE for installation processes, beginning with the development of a HSE plan. The HSE plan will be developed with specific site Environmental and Health concerns that might arise during installation process. Management and installation team will all be trained on the HSE plan prior to installation.

Installation into the building (A5)		
Name	Max	Unit
Auxiliary materials	-	kg
Water consumption	-	m ³
Other resources	-	kg
Electricity consumption	-	kWh
Other energy carriers	-	MJ
Product loss per functional unit	1.14E+02	kg
Waste materials at construction site	1.20E+02	kg
Output substance (recycle)	5.95E+01	kg
Output substance (landfill)	5.45E+01	kg
Output substance (incineration)	0.00E+00	kg
Packaging waste (recycle)	0.00E+00	kg
Packaging waste (landfill)	3.12E+00	kg
Packaging waste (incineration)	3.12E+00	kg
Direct emissions to ambient air*, soil, and water	1.08E+01	kg CO ₂
VOC emissions	-	kg

*CO₂ emissions to air from disposal of packaging

Reference Service Life		
Name	Value	Unit
Reference Service Life	40	years
Number of Replacements	0	number

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

Product Use

No cleaning, maintenance, repair, or refurbishment is required.

Operational energy use was modeled as use phase losses determined by the IEC 61156-5 standard. The maximum loss values for each cable category are detailed in the table below and were used in the B6 stage.

The operational energy use is presented under the assumption that the cable experiences a current of 1 Amp. The equation used to calculate the use phase is:

$$E = Z * I^2 * \Delta t$$

Where:

Z = linear resistivity of the cable in Ω/km , provided by Prysmian

L = current in A, assumption is 1 A

Δt = use time in seconds, assumption is 40 years

Operational Energy Use (B6)		
Name	Max	Unit
Water consumption (from tap, to sewer)	-	m ³
Electricity consumption	10.20	kWh
Linear resistivity	0.03	Ohms
Other energy carriers	-	MJ
Equipment output	-	kW
Direct emissions to ambient air, soil, and water	-	kg

Disposal

The product can be mechanically disassembled to separate the different materials. The majority of components are disposed of through recycling, incineration, and landfill, in accordance with the PCR.

End of life (C1-C4)		
Name	Max	Unit
Collected separately	1.19E+03	kg
Collected as mixed construction waste	1.09E+03	kg
Reuse	0.00E+00	kg
Recycling	1.19E+03	kg
Landfilling	1.09E+03	kg
Incineration with energy recovery	0.00E+00	kg
Energy conversion	4.40E+01	%
Removals of biogenic carbon	-	kg

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

Re-use Phase

Re-use of the product is not common, but a large amount of the metals in this material will be recycled.

Re-Use, recovery, And/Or Recycling Potential (D)		
Name	Max	Unit
Net energy benefit from energy recovery from waste treatment declared as exported energy in C3 (R>0.6)	0.00	MJ
Net energy benefit from thermal energy due to treatment of waste declared as exported energy in C4 (R<0.6)	0.00	MJ
Net energy benefit from material flow declared in C3 for energy recovery	0.00	MJ
Process and conversion efficiencies	-	
Further assumptions for scenario development (e.g. further processing technologies, assumptions on correction factors);	These products are almost entirely metals and the recycling rate from the PCR and the benefit for module D is calculated by the benefit of recycling product at the end of life.	

System Boundary

This is a cradle to grave Environmental Product Declaration. The following life cycle phases were considered:

Product Stage			Construction Process Stage		Use Stage							End of Life Stage*				Benefits and Loads Beyond the System Boundaries
Raw material supply	Transport	Manufacturing	Transport from gate to the site	Construction/ installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction /demolition	Transport	Waste processing	Disposal	Reuse-Recovery- Recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Description of the System Boundary Stages Corresponding to the PCR

(X = Included; MND = Module Not Declared)

*This includes provision of all materials, products and energy, packaging processing and its transport, as well as waste processing up to the end-of waste state or disposal of final residues.

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

LCA Results - Maximum Impact - Results for STABILOY® Aluminum SER 250 kcmil, 4-Conductor cable with 3/0 AWG Drain Wire

Please see the system boundary diagram above for an explanation of the A1-D life cycle stages. The below results all represent the Low Voltage Aluminum Service Entrance Cable with the highest impact, which is the STABILOY Aluminum SER 250 KCMIL, 4-Conductor Cable with 3/0 AWG Drain Wire. For all other cables in this product series, please see the scaling factors below to calculate their impacts.

Results shown below were calculated using TRACI 2.1 Methodology.

TRACI 2.1 Impact Assessment											
Parameter	Parameter	Unit	A1-A3	A4	A5	B6	C2	C3	C4	D	Total
GWP	Global warming potential	kg CO ₂ -Eq.	1.44E+04	1.69E+02	9.88E+02	4.61E+00	9.00E-04	2.46E+02	7.57E+00	-1.24E+04	1.58E+04
ODP	Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	3.02E-05	6.38E-09	1.52E-06	5.35E-13	3.41E-14	2.01E-13	4.10E-13	2.31E-09	3.17E-05
AP Air	Acidification potential for air emissions	kg SO ₂ -Eq.	1.01E+02	1.01E+00	6.21E+00	5.85E-03	5.41E-06	7.25E-02	4.73E-02	-3.79E+01	1.09E+02
EP	Eutrophication potential	kg N-Eq.	1.97E+00	5.62E-02	1.88E-01	4.84E-04	3.00E-07	2.03E-03	2.10E-03	-2.25E+00	2.22E+00
SP	Smog formation potential	kg O ₃ -Eq.	8.94E+02	2.79E+01	7.51E+01	8.49E-02	1.49E-04	4.93E-01	8.83E-01	-7.17E+02	9.98E+02
FFD	Fossil fuel depletion	MJ-surplus	1.32E+04	2.98E+02	1.06E+03	4.95E+00	1.59E-03	1.20E+01	1.29E+01	-1.07E+04	1.46E+04

*Stages B1 through B7 and C1 through C4 have been considered and only those with non-zero values have been reported

Results shown below were calculated using CML 2001 - April 2013 Methodology.

CML 4.1 Impact Assessment											
Parameter	Parameter	Unit	A1-A3	A4	A5	B6	C2	C3	C4	D	Total
GWP	Global warming potential	kg CO ₂ -Eq.	1.42E+04	1.69E+02	9.90E+02	4.66E+00	9.03E-04	2.46E+02	7.63E+00	-1.24E+04	1.56E+04
ODP	Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	2.98E-05	6.37E-09	1.50E-06	3.17E-11	3.40E-14	1.19E-11	2.43E-11	-1.00E-07	3.13E-05
AP Air	Acidification potential for air emissions	kg SO ₂ -Eq.	1.08E+02	8.33E-01	6.33E+00	5.60E-03	4.44E-06	6.04E-02	4.41E-02	-3.49E+01	1.16E+02
EP	Eutrophication potential	kg(PO ₄) ³ -Eq.	5.05E+00	1.48E-01	4.95E-01	6.18E-04	7.91E-07	5.27E-03	4.96E-03	-4.33E+00	5.70E+00
POCP	Formation potential of tropospheric ozone photochemical oxidants	kg ethane-Eq.	6.84E+00	9.73E-02	5.34E-01	4.85E-04	5.19E-07	2.04E-03	3.57E-03	-2.88E+00	7.48E+00
ADPE	Abiotic depletion potential for non-fossil resources	kg Sb-Eq.	6.27E-03	7.01E-08	3.14E-04	5.62E-07	3.74E-13	1.95E-06	2.36E-06	-5.20E-03	6.59E-03
ADPF	Abiotic depletion potential for fossil resources	MJ	1.77E+05	2.15E+03	1.17E+04	5.61E+01	1.15E-02	1.13E+02	9.78E+01	-1.17E+05	1.91E+05

*Stages B1 through B7 and C1 through C4 have been considered and only those with non-zero values have been reported

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

Results below contain the resource use throughout the life cycle of the product.

EN15804+A2											
Parameter	Parameter	Unit	A1-A3	A4	A5	B6	C2	C3	C4	D	Total
GWP-total	Climate change - total	kg CO ₂ -Eq.	1.45E+04	1.70E+02	9.44E+02	4.69E+00	9.05E-04	2.46E+02	7.65E+00	-1.25E+04	1.59E+04
GWP-fossil	Climate change - fossil	kg CO ₂ -Eq.	1.44E+04	1.70E+02	9.33E+02	4.69E+00	9.05E-04	2.46E+02	7.64E+00	-1.25E+04	1.58E+04
GWP-biogenic	Climate change - biogenic	kg CO ₂ -Eq.	-1.08E+01	0.00E+00	1.08E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWP-luluc	Climate change - land use and land use change	kg CO ₂ -Eq.	4.04E-01	0.00E+00	3.50E-02	4.77E-04	0.00E+00	6.42E-03	4.58E-02	-2.41E+00	4.91E-01
ODP	Ozone depletion	kg CFC-11 Eq.	2.98E-05	4.39E-09	1.50E-06	2.69E-11	2.34E-14	1.01E-11	2.06E-11	-8.50E-08	3.13E-05
AP	Acidification	mol H ⁺ Eq.	1.23E+02	1.12E+00	7.38E+00	6.33E-03	5.99E-06	3.98E-02	5.43E-02	-4.24E+01	1.31E+02
EP-freshwater	Eutrophication aquatic freshwater	kg P-Eq.	7.08E-03	4.82E-05	2.79E-03	2.60E-06	2.57E-10	3.82E-06	1.74E-05	-1.72E-02	9.95E-03
EP-marine	Eutrophication aquatic marine	kg N Eq.	1.43E+01	4.32E-01	1.17E+00	1.40E-03	2.31E-06	8.49E-03	1.40E-02	-1.15E+01	1.59E+01
EP-terrestrial	Eutrophication terrestrial	mol N Eq.	1.56E+02	4.71E+00	1.26E+01	1.52E-02	2.52E-05	1.82E-01	1.54E-01	-1.25E+02	1.74E+02
POCP	Photochemical ozone formation	NMVOE Eq.	4.96E+01	1.27E+00	3.93E+00	4.10E-03	6.79E-06	2.36E-02	4.27E-02	-3.21E+01	5.49E+01
ADP-minerals&metals	Depletion of abiotic resources - minerals and metals	kg Sb Eq.	2.16E-04	0.00E+00	1.06E-05	4.51E-07	0.00E+00	6.99E-07	4.95E-07	-1.19E-03	2.28E-04
ADP-fossil	Depletion of abiotic resources - fossil fuels	mol N Eq.	1.85E+05	2.17E+03	1.21E+04	7.80E+01	1.16E-02	1.19E+02	1.01E+02	-1.43E+05	1.99E+05
WDP	Water use	m ³ world Eq. deprived	2.06E+02	0.00E+00	9.98E+00	9.26E-01	0.00E+00	1.93E+01	8.74E-01	-2.08E+03	2.37E+02
PM	Particulate matter emissions	Disease incidence	1.79E-03	4.43E-06	9.36E-05	5.87E-08	2.36E-11	4.49E-07	6.81E-07	-9.24E-04	1.89E-03
IRP	Ionizing radiation, human health	kBq U235 Eq.	1.35E+02	3.82E-17	5.39E+00	6.44E-01	2.04E-22	1.82E-01	1.22E-01	-9.57E+02	1.42E+02
ETP-fw	Ecotoxicity (freshwater)	CTUe	9.40E+04	3.15E+03	8.89E+03	1.25E+01	1.68E-02	1.17E+02	6.72E+01	-3.38E+04	1.06E+05
HTP-c	Human toxicity, cancer effects	CTUh	3.35E-06	4.57E-08	2.28E-07	6.21E-10	2.44E-13	3.12E-09	1.37E-09	-9.53E-06	3.63E-06
HTP-nc	Human toxicity, non-cancer effects	CTUh	9.56E-05	3.11E-06	8.99E-06	1.06E-08	1.66E-11	2.79E-07	5.30E-08	-1.10E-04	1.08E-04
SQP	Land use related impacts/Soil quality	dimensionless	9.35E+02	0.00E+00	3.33E+01	8.66E+00	0.00E+00	1.07E+01	2.77E+01	-2.96E+04	1.02E+03

Results below contain the resource use throughout the life cycle of the product.

Resource Use											
Parameter	Parameter	Unit	A1-A3	A4	A5	B6	C2	C3	C4	D	Total
RPR _E	Renewable primary energy as energy carrier	MJ	1.85E+03	0.00E+00	5.96E+01	2.01E+01	0.00E+00	7.54E+00	1.76E+01	-9.36E+04	1.95E+03
RPR _M	Renewable primary energy resources as material utilization	MJ	1.90E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E+01
NRPR _E	Nonrenewable primary energy as energy carrier	MJ	1.85E+05	2.17E+03	1.21E+04	7.80E+01	1.16E-02	1.19E+02	1.01E+02	-1.43E+05	2.00E+05
NRPR _M	Nonrenewable primary energy as material utilization	MJ	1.37E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.37E+02
SM	Use of secondary material	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	Use of nonrenewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE	Energy recovered from disposed waste	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Use of net fresh water	m ³	6.28E+00	0.00E+00	2.95E-01	2.83E-02	0.00E+00	4.52E-01	2.67E-02	-6.36E+01	7.09E+00

*All use phase and disposal stages have been considered and only those with non-zero values have been reported

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

Results below contain the output flows and wastes throughout the life cycle of the product.

Output Flows and Waste Categories											
Parameter	Parameter	Unit	A1-A3	A4	A5	B6	C2	C3	C4	D	Total
HWD	Hazardous waste disposed	kg	3.68E-04	0.00E+00	1.83E-05	4.54E-08	0.00E+00	2.03E-08	2.51E-08	-1.01E-04	3.86E-04
NHWD	Non-hazardous waste disposed	kg	1.81E+02	0.00E+00	1.01E+02	2.24E-02	0.00E+00	2.16E+01	5.11E+02	-5.63E+03	8.15E+02
HLRW	High-level radioactive waste	kg	1.63E+00	0.00E+00	7.34E-02	7.80E-03	0.00E+00	2.09E-03	1.06E-03	-9.44E+00	1.72E+00
ILLRW	Intermediate- and low-level radioactive waste	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CRU	Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR	Materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.19E+03	0.00E+00
MER	Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE	Recovered energy exported from system	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

**All use phase and disposal stages have been considered and only those with non-zero values have been reported*

Biogenic Carbon Contents										
Parameter	Unit	A1-A3	A4	A5	B6	C2	C3	C4	D	Total
Biogenic Carbon Content in Product	kg C	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic Carbon Content in Accompanying Packaging	kg C	3.94E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.94E+01

**All use phase and disposal stages have been considered and only those with non-zero values have been reported*

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

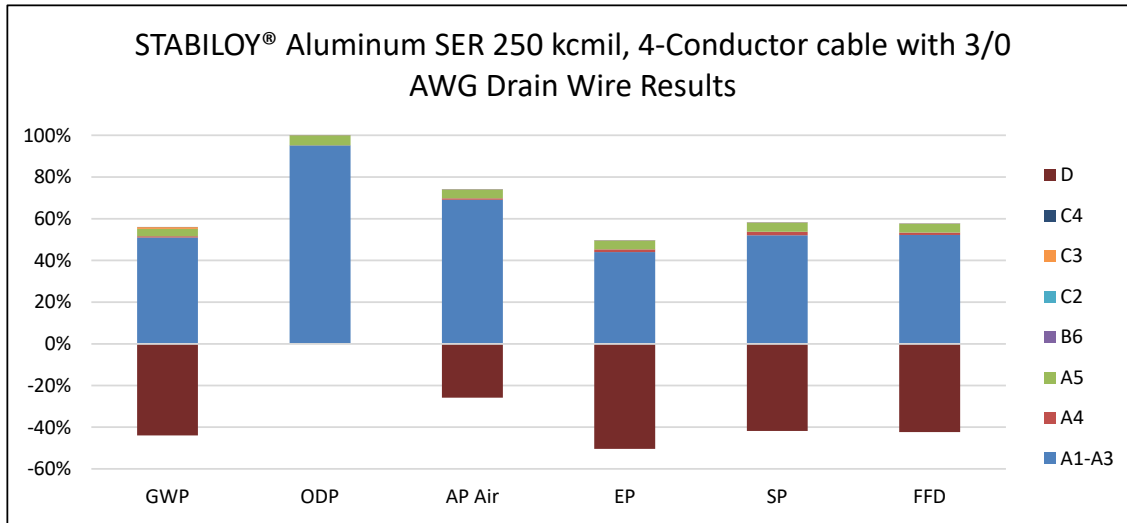
Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

LCA Interpretation - Maximum Impact

The production life cycle stage (A1-A3) dominates the impacts across all impact categories. This is due to the upstream production of raw materials used in the product, along with energy use in the manufacturing of the product. The D reuse, recovery, and recycling potential stage shows as a negative value and accounts for the benefit of energy recovery during incineration, and the benefit from recycling material at the end-of-life for a product. Though the energy use (B6) phase does not have a large impact, this is due to the functional unit of 1 amp, lifetime use may be larger than 1 amp.



System Boundary

This is a cradle to grave Environmental Product Declaration. The following life cycle phases were considered:

Product Stage			Construction Process Stage		Use Stage							End of Life Stage*				Benefits and Loads Beyond the System Boundaries
Raw material supply	Transport	Manufacturing	Transport from gate to the site	Construction/ installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction /demolition	Transport	Waste processing	Disposal	Reuse-Recovery- Recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Description of the System Boundary Stages Corresponding to the PCR

(X = Included; MND = Module Not Declared)

*This includes provision of all materials, products and energy, packaging processing and its transport, as well as waste processing up to the end-of waste state or disposal of final residues.

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

Scaling Factor Tables

For EPDs with product groups, an impact assessment was completed for each product and the highest impacts were reported as representations of the product group. The rest of the products in each group are represented through scaling factor tables and can be independently calculated.

To use these scaling factors, you will need the result from the tables in section 'LCA Results - Maximum Impact' and the chosen cable you are investigating. The scaling factors multiplied by the results above will be the results for that particular cable. For example, if you wanted to know how much A1-A3 GWP impact came from the example cable below, you would follow the equation below:

	Scaling Factor	*	Results	=	Final GWP
STABILOY® AL SER 4 AWG/2C + 6 AWG GRD	1.09E-01	*	1.44E+04	=	1.57E+03

This equation can be used for all steps of the life cycle, where the scaling factor from each stage is multiplied by the results shown in this study in order to get any of the results. The scaling factors below are split into A1-A3 factors, which have each main impact category distinct from the others. This is due to the fact that the manufacturing site and the raw materials used in each cable can vary tremendously in these category. The A4-D categories are mostly based on weight of the cable, the individual impact category does not have as much variability and can be assumed to be the same. C2-D will all have the same scaling factor, and therefore, the scaling factor for these can be used in the equation above for any individual category. These scaling factors can be used for each methodology, including the TRACI 2.1 impacts, CML 4.1 impacts and EN15804+A2 impacts, from the results section.

To adjust for more operational energy use than one amp, you will need the result from the tables in section 'LCA Results - Maximum Impact', the chosen cable you are investigating, and your expected amperage over 40 years. The scaling factors multiplied by the results above will be the operational use results for that particular cable, multiplied by the squared amperage. For example, if you wanted to know how much 100 Amps would increase the example cable's B6 GWP, you would follow the equation below:

	Scaling Factor	*	Results	*	Amperage-squared	=	Final GWP
STABILOY® AL SER 4 AWG/2C + 6 AWG GRD	4.95E+00	*	6.33E-03	*	100 ²	=	3.13E+02

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

	A1 - A3							A4	A5	B6	C2 - D
	GWP	ODP	AP	EP	PCOP	FFD/ADP	Resources				
STABILOY® AL SER 8 AWG/3C + 8 AWG GRD	7.73E-02	6.04E-02	6.42E-02	8.13E-02	6.80E-02	9.99E-02	1.01E-01	9.99E-02	9.99E-02	1.21E+01	9.99E-02
STABILOY® AL SER 6 AWG/2C + 6 AWG GRD	8.17E-02	6.73E-02	7.05E-02	8.62E-02	8.05E-02	1.05E-01	9.46E-02	1.05E-01	1.05E-01	7.87E+00	1.05E-01
STABILOY® AL SER 6 AWG/3C + 6 AWG GRD	1.09E-01	8.98E-02	9.41E-02	1.14E-01	1.13E-01	1.38E-01	1.32E-01	1.38E-01	1.38E-01	7.87E+00	1.38E-01
STABILOY® AL SER 4 AWG/2C + 4 AWG GRD	1.09E-01	9.40E-02	9.73E-02	1.14E-01	1.07E-01	1.34E-01	1.22E-01	1.34E-01	1.34E-01	4.95E+00	1.34E-01
STABILOY® AL SER 4 AWG/3C + 4 AWG GRD	1.50E-01	1.30E-01	1.34E-01	1.55E-01	1.53E-01	1.80E-01	1.73E-01	1.80E-01	1.80E-01	4.95E+00	1.80E-01
STABILOY® AL SER 2 AWG/3C + 4 AWG GRD	2.24E-01	2.07E-01	2.10E-01	2.28E-01	2.14E-01	2.50E-01	2.42E-01	2.50E-01	2.50E-01	3.58E+00	2.50E-01
STABILOY® AL SER 2 AWG/4C + 4 AWG GRD	2.86E-01	2.63E-01	2.68E-01	2.92E-01	2.88E-01	3.18E-01	3.16E-01	3.18E-01	3.18E-01	3.58E+00	3.18E-01
STABILOY® AL SER 1 AWG/3C + 3 AWG GRD	2.81E-01	2.60E-01	2.65E-01	2.87E-01	2.84E-01	3.12E-01	3.06E-01	3.12E-01	3.12E-01	2.64E+00	3.12E-01
STABILOY® AL SER 1/0 AWG/3C + 2 AWG GRD	3.46E-01	3.28E-01	3.32E-01	3.52E-01	3.51E-01	3.75E-01	3.65E-01	3.75E-01	3.75E-01	2.44E+00	3.75E-01
STABILOY® AL SER 2/0 AWG/3C + 1 AWG GRD	4.27E-01	4.14E-01	4.17E-01	4.31E-01	4.33E-01	4.49E-01	4.36E-01	4.49E-01	4.49E-01	1.83E+00	4.49E-01
STABILOY® AL SER 2/0 AWG/4C + 1 AWG GRD	5.44E-01	5.28E-01	5.31E-01	5.48E-01	5.35E-01	5.66E-01	5.66E-01	5.66E-01	5.66E-01	1.83E+00	5.66E-01
STABILOY® AL SER 4/0 AWG/2C + 2/0 AWG GRD	4.76E-01	4.76E-01	4.76E-01	4.79E-01	4.89E-01	4.86E-01	4.52E-01	4.86E-01	4.86E-01	1.04E+00	4.86E-01
STABILOY® AL SER 4/0 AWG/3C + 2/0 AWG GRD	6.54E-01	6.58E-01	6.57E-01	6.56E-01	6.55E-01	6.58E-01	6.34E-01	6.58E-01	6.58E-01	1.04E+00	6.58E-01
STABILOY® AL SER 4/0 AWG/4C + 2/0 AWG GRD	8.36E-01	8.39E-01	8.38E-01	8.36E-01	8.36E-01	8.35E-01	8.22E-01	8.35E-01	8.35E-01	1.04E+00	8.35E-01
STABILOY® AL SER 250 kcmil/3C + 3/0 AWG GRD	7.84E-01	7.86E-01	7.85E-01	7.86E-01	7.85E-01	7.88E-01	7.72E-01	7.88E-01	7.88E-01	1.00E+00	7.88E-01
STABILOY® AL SER 250 kcmil/4C + 3/0 AWG GRD	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
STABILOY® AL SER 300 kcmil/3C + 4/0 AWG GRD	9.55E-01	9.70E-01	9.67E-01	9.54E-01	9.62E-01	9.43E-01	9.18E-01	9.43E-01	9.43E-01	8.39E-01	9.43E-01
STABILOY® AL SEU 8 AWG/2C + 8 AWG GRD	5.70E-02	4.33E-02	4.63E-02	6.13E-02	4.90E-02	7.93E-02	6.94E-02	7.93E-02	7.93E-02	1.27E+01	7.93E-02
STABILOY® AL SEU 6 AWG/2C + 6 AWG GRD	8.00E-02	6.55E-02	6.87E-02	8.47E-02	7.14E-02	1.04E-01	9.27E-02	1.04E-01	1.04E-01	7.87E+00	1.04E-01
STABILOY® AL SEU 4 AWG/2C + 4 AWG GRD	1.18E-01	1.04E-01	1.07E-01	1.24E-01	1.24E-01	1.44E-01	1.28E-01	1.44E-01	1.44E-01	4.95E+00	1.44E-01
STABILOY® AL SEU 4 AWG/2C + 6 AWG GRD	1.06E-01	9.12E-02	9.45E-02	1.11E-01	9.73E-02	1.31E-01	1.19E-01	1.31E-01	1.31E-01	4.95E+00	1.31E-01
STABILOY® AL SEU 2 AWG/2C + 2 AWG GRD	1.76E-01	1.65E-01	1.68E-01	1.81E-01	1.69E-01	1.97E-01	1.80E-01	1.97E-01	1.97E-01	3.58E+00	1.97E-01
STABILOY® AL SEU 2 AWG/2C + 4 AWG GRD	1.58E-01	1.45E-01	1.48E-01	1.63E-01	1.50E-01	1.82E-01	1.66E-01	1.82E-01	1.82E-01	3.58E+00	1.82E-01
STABILOY® AL SEU 1 AWG/2C + 1 AWG GRD	2.20E-01	2.08E-01	2.10E-01	2.25E-01	2.20E-01	2.44E-01	2.27E-01	2.44E-01	2.44E-01	2.64E+00	2.44E-01
STABILOY® AL SEU 2/0 AWG/2C + 1 AWG GRD	2.99E-01	2.89E-01	2.91E-01	3.04E-01	3.07E-01	3.22E-01	2.99E-01	3.22E-01	3.22E-01	1.83E+00	3.22E-01
STABILOY® AL SEU 2/0 AWG/2C + 2/0 AWG GRD	3.35E-01	3.29E-01	3.30E-01	3.38E-01	3.31E-01	3.50E-01	3.26E-01	3.50E-01	3.50E-01	1.83E+00	3.50E-01
STABILOY® AL SEU 4/0 AWG/2C + 2/0 AWG GRD	4.58E-01	4.59E-01	4.58E-01	4.60E-01	4.57E-01	4.67E-01	4.35E-01	4.67E-01	4.67E-01	1.04E+00	4.67E-01
STABILOY® AL SEU 4/0 AWG/4C + 4/0 AWG GRD	5.16E-01	5.24E-01	5.22E-01	5.18E-01	5.32E-01	5.20E-01	4.79E-01	5.20E-01	5.20E-01	1.04E+00	5.20E-01

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

Environmental and Health During Manufacturing

Prysmian has an established HSE Management System in place at its manufacturing sites. Site programs ensure that OSHA and environmental requirements are met or exceeded to help ensure the safety and health of all employees, contractors, and guests.

Environmental and Health During Installation

There is no harmful emissive potential. No damage to health or impairment is expected under normal use corresponding to the intended use of the product.

Extraordinary Effects

Fire

None

Water

None

Mechanical Destruction

None

Delayed Emissions

Global warming potential is calculated using the TRACI 2.1 and CML 4.1 impact assessment methodologies. Delayed emissions are not considered.

Environmental Activities and Certifications

Prysmian North America manufacturing sites strive to meet or exceed all applicable federal, state, and local environmental regulations. All manufacturing sites are ISO 14001:2015 Certified.

Prysmian maintains a variety of certifications based on the widely accepted industry standards:

- Quality Management System certifications (ISO9001/TL9000)
- Environmental Management System certifications (ISO14001)
- Health and Safety Management System certifications (ISO45001)

These certificates can be downloaded from our company website here:

<https://www.prysmian.com/en>

Further Information

Prysmian Group
4 Tesseneer Road Highland Heights, KY 41076

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

References

- PCR PEP ecopassport Program: Product Category Rules for Electrical, Electronic and HVAC-R Products, v4.0, 2021.
- PSR PEP ecopassport Program: Product Specific Rules for Wires, Cables and Accessories, v4.0, 2022.
- LCA for Experts v10.7.0.183 Sphera Solutions GmbH. LCA for Experts Software System and Database for Life Cycle Engineering. Version 10.7.0.183 (software).
- ISO 14025 ISO 14025:2011-10, Environmental labels and declarations — Type III environmental declarations — Principles and procedures.
- ISO 14040 ISO 14040:2009-11, Environmental management — Life cycle assessment — Principles and framework.
- ISO 14044 ISO 14044:2006-10, Environmental management — Life cycle assessment — Requirements and guidelines.
- EN 15804+A2 EN 15804:2012+A2:2019/AC:2021 - Sustainability of construction works - Environmental Product Declarations - Core rules for the product category of construction products
- ASTM 2020 ASTM International General Program Instructions v8.0, April 29, 2020
- ISO 21930: 2017 ISO 21930:2017, Sustainability in buildings and civil engineering works - Core rules for environmental product declarations of construction products and services.
- Characterization Method IPCC. 2021. Climate Change 2013. The Physical Science Basis. Cambridge University Press. (<http://www.ipcc.ch/report/ar5/wg1/>).
- Characterization Method Hauschild M.Z., & Wenzel H. Environmental Assessment of Products. Springer, US, Vol. 2, 1998.
- Characterization Method Heijungs R., Guinée J.B., Huppes G., Lankreijer R.M., Udo de Haes H.A., Wegener Sleeswijk A. Environmental Life Cycle Assessment of Products: Guide and Backgrounds. CML. Leiden University, Leiden, 1992.
- Characterization Method Jenkin M.E., & Hayman G.D. Photochemical ozone creation potentials for oxygenated volatile organic compounds: sensitivity to variations in kinetic and mechanistic parameters. Atmospheric Environment. 1999, 33 (8) pp. 1275-1293.
- Characterization Method WMO. 1999. Scientific Assessment of Ozone Depletion: 1998, World Meteorological Organization Global Ozone Research and Monitoring Project - Report No. 44, WMO, Geneva.
- Characterization Method Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources using Environmental Chambers- version 1.2, January 2017.

Environmental Product Declaration

Prysmian Low Voltage Aluminum Service Entrance Cable

Industrial and Construction Cables



According to
ISO 14025, EN
15804+A2

Contact Information

Study Commissioner



- For more information, visit our website at

<https://www.prysmian.com/en>

- Technical Support for product technical questions at

<https://www.prysmian.com/en/contact-us>

- Contact our sustainability team:

LCA Practitioner



Sustainable Solutions Corporation

155 Railroad Plaza, Suite 203

Royersford, PA 19468 USA

(+1) 610 569-1047

info@sustainablesolutionscorporation.com

www.sustainablesolutionscorporation.com