

## Environmental Product Declaration

# Prysmian Low Voltage Thermoset Aluminum Building Cable

STABILOY® Brand UL Type XHHW-2 High Speed (HS), 600V

STABILOY® Brand USE-2/RHH/RHW-2, 600V

STABILOY® Brand Zephyr2000 UL Type RHH/RHW-2, 2000V

NUAL® Brand CSA Type RW90/RWU90 High Speed (HS), 600V

SunGen® Photovoltaic Wire CSA Type RPV90, 600V, 1000V, 2000V, Type RPVU90, 1000V, 2000V

STABILOY® Brand Mobile Home Feeder Cable UL Type USE-2/RHH/RHW-2, 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 Thermoset Aluminum Building Cable line consists of UL Type XHHW-2, USE-2/RHH/RHW-2, PV and Canadian constructions such as RW90, RWU90 and RPV90, RPVU90. Our high-quality aluminum building wire is manufactured in the U.S. and delivers long-term, reliable performance in many building applications.

# Environmental Product Declaration



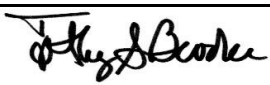

According to

ISO 14025, EN 15804+A2,  
ISO 14040, ISO 14044

## Prysmian Low Voltage Thermoset Aluminum Building Cable

Industrial and Construction Cables

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	ASTM General Program Instructions. Version 8.0. April 29, 2020.
MANUFACTURER NAME AND ADDRESS	Prysmian Group 4 Tesseneer Road Highland Heights, KY 41076
DECLARATION NUMBER	EPD841
DECLARED PRODUCT & FUNCTIONAL UNIT OF DECLARED UNIT	Prysmian Low Voltage Thermoset Aluminum Building Cable Functional Unit = To transmit energy 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. Lifetime and use rate correspond to the application of energy distribution network as defined in the table given in Appendix 6.1. of the specific rules for wire, cables and accessories.
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)	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 Managed Content & 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	
This life cycle assessment was conducted in accordance with ISO 14044 and the reference PCR by:	
This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:	
 Timothy S Brooke	
 Thomas P Gloria, Ph. D Industrial Ecology Consultants	

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 stages declared.

## Prysmian Low Voltage Thermoset Aluminum Building Cable

Industrial and Construction Cables

### General Information

#### Description of Company/Organization

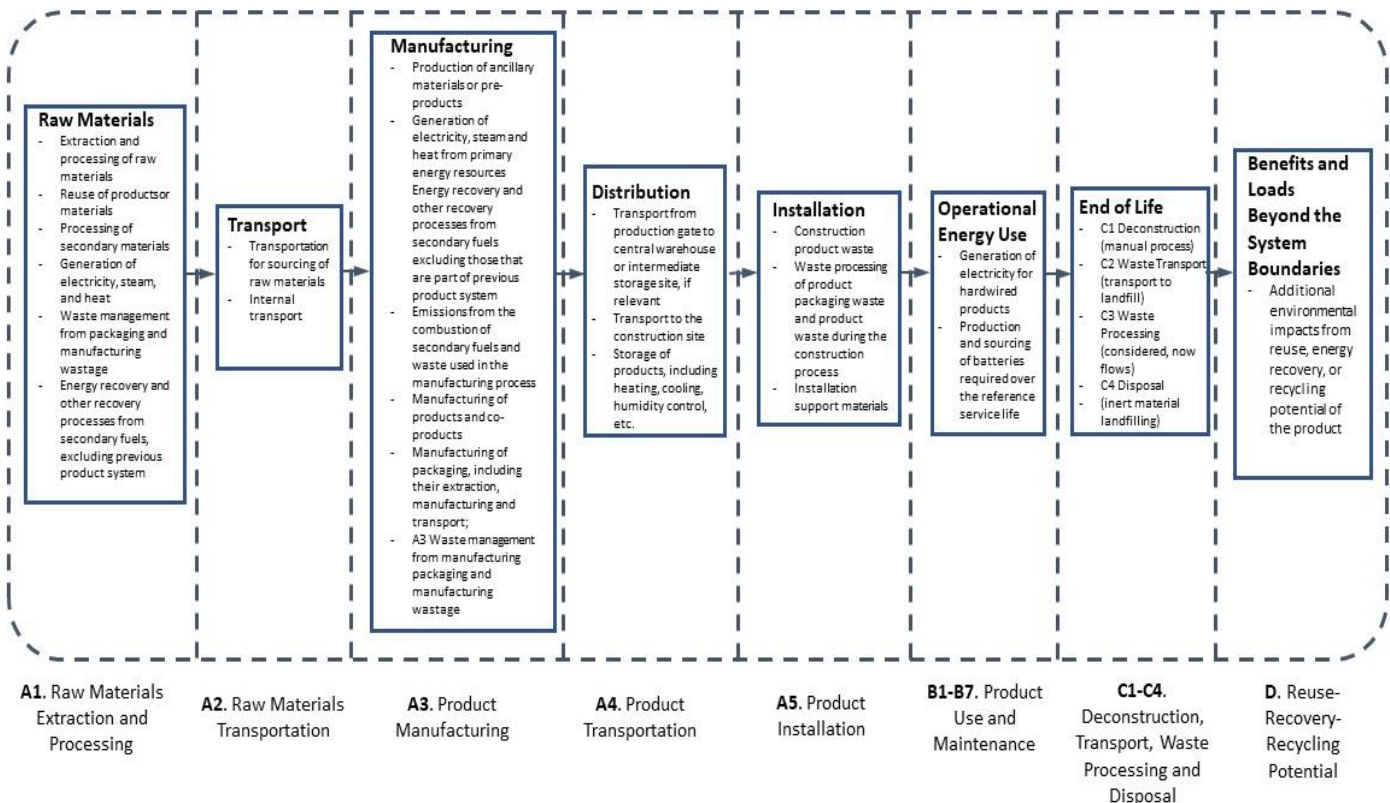
Prysmian, a global provider of cabling solutions, is leading the charge in the energy transition and digital transformation. With 150 years of experience in over 50 countries around the globe, the company's business strategy is a testament to its understanding of market dynamics, focusing on the development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

#### Product Description

Prysmian's **Low Voltage Thermoset Aluminum Building Cables** are 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. All products have similar features:

- Rated 90°C wet or dry locations
- Oil Resistant PRI/PRII
- Gas and Oil Res GRI/GRII
- UV/sunlight-resistant, moisture-resistant and flame-retardant insulation
- Meets cold bend and cold impact tests at -40°C
- Excellent electrical, thermal and physical properties
- Resistant to crush, compression cuts and heat deformation
- High Speed (HS) cable features a specially designed XLPE insulation that allows for fast and easy cable pulls

#### Flow Diagram



# Environmental Product Declaration



According to

ISO 14025, EN 15804+A2,  
ISO 14040, ISO 14044

## Prysmian Low Voltage Thermoset Aluminum Building Cable

Industrial and Construction Cables

### 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 UL Type XHHW-2 High Speed (HS) cable is a general purpose building wire for use primarily in conduit or other recognized raceways as specified in the National Electric Code® (NEC®). Maximum operating temperature not to exceed 90°C in wet or dry locations. 600 V approved for use as specified by the NEC®.

Prysmian's STABILOY® Brand Type USE-2/RHH/RHW-2 cable is designed for use in residential, commercial and industrial building applications, and also in underground power distribution and network systems. The cable is also listed for RHH or RHW-2 and is suitable for installation on both sides of service-point. Triple-Rated (USE-2 or RHH or RHW-2 URD) conductors can be used as Type USE-2 direct-buried underground service entrance cable, but are also listed as RHH and RHW-2, making them suitable for interior and exterior applications in raceways for general purpose lighting and power circuits covered under the National Electrical Code®. 600 V approved for use as specified by the NEC®.

Prysmian's STABILOY® Brand Zephyr2000™ is the aluminum conductor solution for wind power generation, from the turbine to the step-up transformer. Installed in raceways in accordance with the requirements of the NEC® and may be used in cable trays when marked "FOR CT USE". Suitable for use in special applications such as wind power generation.

Prysmian's NUAL® Brand CSA Type RW90/RWU90 High Speed (HS) cable is in accordance with Canadian Electrical Code (CEC), Part 1. RW90/RWU90 cable can be used for wiring exposed to the weather, or used in raceways (except cable trays) in dry, damp or wet locations in accordance with Canadian Electrical Code (CEC). For termination and splicing of aluminum conductors, refer to CEC Rule 12-118. Type RW90 XPLE is certified to be pulled into underground ducts. Standard RW90 XLPE is not approved for direct burial in the earth.

Prysmian's SunGen® Photovoltaic Wire UL Type PV cable is sunlight-resistant, direct burial photovoltaic wire rated at 90°C wet or dry, 1000 V or 2000 V, for interconnection wiring of grounded and ungrounded photovoltaic power systems described in NEC® Article 690. SunGen® Photovoltaic Wire CSA Type RPV90/RPVU90 cable is rated at 90°C wet or dry for interconnection wiring of grounded and ungrounded photovoltaic power systems described in CSA 22.2 No. 271.

Prysmian's STABILOY® Brand mobile home feeder cable is listed for direct burial applications and approved for use in raceways and underground installations in accordance with the requirements of the National Electrical Code®.

### 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 Nual® Aluminum RW90 FPLX 500 kcmil, 4-Conductor cable is as follows:

Material	Percentage in mass (%)
	Maximum
Colorant	0.90%
Conductor	74.07%
Insulation	25.03%
Jacketing	0.00%
Total	100.00%

# Environmental Product Declaration



According to  
ISO 14025, EN 15804+A2,  
ISO 14040, ISO 14044

Prysmian Low Voltage Thermoset Aluminum Building Cable  
Industrial and Construction Cables

## 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	Class B stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801 or compact stranded SIW aluminum alloy (8000 Series) per ASTM B800, ASTM B801, and ASTM B836
Insulation	Cross-linked polyethylene (XLPE) with varying flame retardant



# SunGen® Photovoltaic Wire

XLPE

600 V, 1000 V, 2000 V, CSA Type RPV90, Single Conductor, Aluminum

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

- 6 AWG thru 2 AWG Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801
- 1 AWG thru 350 kcmil compact stranded SIW aluminum alloy (8000 Series) per ASTM B800, ASTM B801 and ASTM B836
- 400 kcmil thru 1000 kcmil Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801

**Insulation:**

- Flame-retardant Cross-linked Polyethylene (XLPE)

**Print:**

- GENERAL CABLE® (PLANT OF MFG) SIZE (AWG OR KCMIL) (MM<sup>2</sup>) AL ACM SUNGEN® RPV90 XLPE (-40°C) (VOLTS) SR CSA LL 28117 YEAR DATE (TIME OF MFG) SEQUENTIAL FOOTAGE

**Options:**

- Available in black and full color skin coat

**Applications:**

- Single conductor 600 V, 1000 V and 2000 V photovoltaic wire rated 90°C wet or dry for interconnection wiring of grounded and ungrounded photovoltaic power systems described in CSA 22.2 No. 271
- Stable electrical properties over a broad temperature range

**Features:**

- Available in 600 V, 1000 V or 2000 V
- Rated 90°C wet or dry locations
- UV/sunlight-resistant, moisture-resistant and flame-retardant insulation
- Meets cold bend and cold impact tests at -40°C
- Excellent electrical, thermal and physical properties
- Resistant to crush, compression cuts and heat deformation

**Compliances:****Industry Compliances:**

- CSA 22.2 No. 271 File #LL 28117
- Canadian Electrical Code (CEC)

**Flame Test Compliances:**

- CSA 22.2 No. 2556

**Other Compliances:**

- OSHA Acceptable
- RoHS Compliant

**Packaging:**

- Material cut to length and shipped on non-returnable wood reels



COND. SIZE (AWG/kcmil)	NUMBER OF WIRES	NOMINAL CONDUCTOR DIAMETER		MIN. AVG. INSULATION THICKNESS		NOMINAL CABLE DIAMETER		ALUMINUM CONDUCTOR WEIGHT		NET WEIGHT	
		IN	mm	IN	mm	IN	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km

**6 AWG - 1000 kcmil CONDUCTORS - 600 V**

6*	7	0.169	4.29	0.045	1.14	0.259	6.58	25	37	37	55
4*	7	0.213	5.41	0.045	1.14	0.303	7.70	39	58	55	82
2*	7	0.268	6.81	0.045	1.14	0.358	9.09	62	92	82	122
1*	8	0.298	7.57	0.055	1.40	0.408	10.36	79	118	106	158
1/0*	10	0.337	8.56	0.055	1.40	0.447	11.35	99	147	130	193
2/0*	12	0.374	9.50	0.055	1.40	0.484	12.29	125	186	159	237
3/0*	16	0.421	10.69	0.055	1.40	0.531	13.49	158	235	197	293
4/0*	19	0.470	11.94	0.055	1.40	0.580	14.73	199	296	243	362
250*	23	0.514	13.06	0.065	1.65	0.644	16.36	235	350	290	432
350*	26	0.607	15.42	0.065	1.65	0.737	18.72	329	490	329	490
500*	37	0.736	18.69	0.065	1.65	0.866	22.00	471	701	541	805
750*	61	0.908	23.06	0.080	2.03	1.068	27.13	706	1051	813	1210
1000*	61	1.060	26.92	0.080	2.03	1.220	30.99	941	1400	1066	1586

**6 AWG - 1000 kcmil CONDUCTORS - 1000 V**

6*	7	0.169	4.29	0.060	1.52	0.289	7.34	25	37	43	64
4*	7	0.213	5.41	0.060	1.52	0.333	8.46	39	58	61	91
2*	7	0.268	6.81	0.060	1.52	0.388	9.86	62	92	89	132
1*	8	0.298	7.57	0.080	2.03	0.458	11.63	79	118	120	179
1/0*	10	0.337	8.56	0.080	2.03	0.497	12.62	99	147	145	216
2/0*	12	0.374	9.50	0.080	2.03	0.534	13.56	125	186	176	262
3/0*	16	0.421	10.69	0.080	2.03	0.581	14.76	158	235	214	318
4/0*	19	0.470	11.94	0.080	2.03	0.630	16.00	199	296	262	390
250*	23	0.514	13.06	0.090	2.29	0.694	17.63	235	350	311	463
350*	26	0.607	15.42	0.090	2.29	0.787	19.99	329	490	418	622
500*	37	0.736	18.69	0.090	2.29	0.916	23.27	471	701	570	848
750*	61	0.908	23.06	0.090	2.29	1.088	27.64	706	1051	826	1229
1000*	61	1.060	26.92	0.090	2.29	1.240	31.50	941	1400	1081	1609

**6 AWG - 1000 kcmil CONDUCTORS - 2000 V**

6*	7	0.169	4.29	0.070	1.78	0.309	7.85	25	37	46	68
4*	7	0.213	5.41	0.070	1.78	0.353	8.97	39	58	65	97
2*	7	0.268	6.81	0.070	1.78	0.408	10.36	62	92	94	140
1*	8	0.298	7.57	0.090	2.29	0.478	12.14	79	118	126	188
1/0*	10	0.337	8.56	0.090	2.29	0.517	13.13	99	147	152	226
2/0*	12	0.374	9.50	0.090	2.29	0.554	14.07	125	186	183	272
3/0*	16	0.421	10.69	0.090	2.29	0.601	15.27	158	235	222	330
4/0*	19	0.470	11.94	0.105	2.67	0.650	16.51	199	296	270	402
250*	23	0.514	13.06	0.105	2.67	0.724	18.39	235	350	324	482
350*	26	0.607	15.42	0.105	2.67	0.817	20.75	329	490	434	646
500*	37	0.736	18.69	0.105	2.67	0.946	24.03	471	701	587	874
750*	61	0.908	23.06	0.120	3.05	1.148	29.16	706	1051	869	1293
1000*	61	1.060	26.92	0.120	3.05	1.300	33.02	941	1400	1129	1680

Dimensions and weights are nominal; subject to industry tolerances.

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

**STABILOY® Brand XHHW-2 High Speed (HS)**

XLPE, Low-Voltage Power

600 V, UL Type XHHW-2, Single Conductor, Aluminum



CATALOG NUMBER	COND. SIZE (AWG/kcmil)	NO. OF WIRES	NOMINAL CONDUCTOR DIAMETER		MIN. AVG. INSULATION THICKNESS		NOMINAL CABLE DIAMETER		ALUMINUM CONDUCTOR WEIGHT		NET WEIGHT		AMPACITY (1) 30°C AMBIENT	
			IN	mm	IN	mm	IN	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km	@75°C	@90°C
6 AWG - 1000 kcmil CONDUCTORS														
8K06	6	7	0.169	4.29	0.045	1.14	0.259	6.58	25	37	39	58	50	55
8K04	4	7	0.213	5.41	0.045	1.14	0.303	7.70	39	58	56	83	65	75
8K02	2	7	0.268	6.81	0.045	1.14	0.358	9.09	62	92	83	124	90	100
8K01	1	8	0.298	7.57	0.055	1.40	0.408	10.36	79	118	108	161	100	115
8K11	1/0	10	0.337	8.56	0.055	1.40	0.447	11.35	99	147	132	196	120	135
8K21	2/0	12	0.374	9.50	0.055	1.40	0.484	12.29	125	186	162	241	135	150
8K31	3/0	16	0.421	10.69	0.055	1.40	0.531	13.49	158	235	199	296	155	175
8K41	4/0	19	0.470	11.94	0.055	1.40	0.580	14.73	199	296	244	363	180	205
8K25	250	23	0.514	13.06	0.065	1.65	0.644	16.36	235	350	292	435	205	230
8K30	300	22	0.566	14.38	0.065	1.65	0.696	17.68	282	420	345	513	230	260
8K35	350	26	0.607	15.42	0.065	1.65	0.737	18.72	329	490	397	591	250	280
8K40	400	37	0.659	16.74	0.065	1.65	0.789	20.04	376	560	443	659	270	305
8K50	500	37	0.736	18.69	0.065	1.65	0.866	22.00	471	701	544	810	310	350
8K60	600	61	0.813	20.65	0.080	2.03	0.973	24.71	565	841	664	988	340	385
8K75	750	61	0.908	23.06	0.080	2.03	1.068	27.13	706	1051	817	1216	385	435
8K10	1000	61	1.060	26.92	0.080	2.03	1.220	30.99	941	1400	1071	1594	445	500

Dimensions and weights are nominal; subject to industry tolerances.

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

Dwelling - For dwelling units, conductors shall be permitted as listed ampacities at 120/240-volt, 3-wire, single-phase services and feeders.

**COLOR CODE CHART**

COLOR CODE	COLOR	COLOR CODE	COLOR
1	Black	7	Blue
2	White	8	Orange
3	Red	9	Gray
4	Green	A	Purple
5	Yellow	C	Tan
6	Brown		

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

- 6 AWG thru 2 AWG Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801
- 1 AWG thru 350 kcmil compact stranded SIW aluminum alloy (8000 Series) per ASTM B800, ASTM B801 and ASTM B836
- 400 kcmil thru 1000 kcmil Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801

**Insulation:**

- Flame-retardant Cross-linked Polyethylene (XLPE)

**Print:**

- GENERAL CABLE® (PLANT OF MFG) SIZE (AWG OR KCMIL) (MM²) COMPACT STABILOY® AA-8030 AL XLPE 600 V XHHW-2 SUN RES (-40°C) (UL) YEAR DATE (TIME OF MFG) NOM ANCE SEQUENTIAL FOOTAGE

**Options:**

- Other sizes and stranding options available upon request
- VW-1 Flame Rating
- "FOR CT USE" for 1/0 AWG and larger
- Available in non-High Speed
- Available in black and full color skin coat
- FeederPlex HS® Type XHHW-2

**Applications:**

- General purpose building wire for use primarily in conduit or other recognized raceways as specified in the National Electric Code® (NEC®)
- 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 in all colors
- Meets cold bend and cold impact tests at -40°C
- Excellent electrical, thermal and physical properties
- Resistant to crush, compression cuts and heat deformation
- STABILOY® Brand AA-8000 aluminum alloy conductors are lightweight and provide increased flexibility for easy installation
- High Speed (HS) cable features a specially designed XLPE insulation that allows for fast and easy cable pulls

**Compliances:****Industry Compliances:**

- UL 44 Type XHHW-2, UL File #E39406
- National Electrical Code (NEC®)

**Flame Test Compliances:**

- UL 2556 Horizontal Burn
- CT UL 1685
- UL 2556 VW-1

**Other Compliances:**

- OSHA Acceptable
- RoHS Compliant

**Packaging:**

- Material cut to length and shipped on non-returnable wood reels



# STABILOY® Brand Zephyr2000™

XLPE, Low-Voltage Power  
2000 V, UL Type RHH/RHW-2, Single Conductor, Aluminum



## Product Construction:

### Conductor:

- 6 AWG thru 2 AWG Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801
- 1 AWG thru 350 kcmil compact stranded SIW aluminum alloy (8000 Series) per ASTM B800, ASTM B801 and ASTM B836
- 400 kcmil thru 1000 kcmil Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801

### Insulation:

- Flame-retardant Cross-linked Polyethylene (XLPE)

### Print:

- GENERAL CABLE® (PLANT OF MFG) SIZE (AWG OR KCMIL) (MM²) COMPACT STABILOY® AA-8030 AL XLPE 2000 V RHH RHW-2 SUN RES (UL) ZEPHYR2000™ YEAR DATE (TIME OF MFG)

### Options:

- Other sizes and stranding options available upon request
- VW-1 Flame Rating
- "FOR CT USE" for 1/0 AWG and larger
- Available in black and full color skin coat

## Applications:

- STABILOY® Brand Zephyr2000™ is the aluminum conductor solution for wind power generation, from the turbine to the step-up transformer
- Installed in raceways in accordance with the requirements of the NEC® and may be used in cable trays when marked "FOR CT USE"
  - Suitable for use in special applications such as wind power generation

## Features:

- Oil Resistant PRI/PRII
- Gas and Oil Res GRI/GRII
- Rated 90°C wet or dry locations
- Sunlight-resistant RHH/RHW-2 (XLPE)
- Meets cold bend and cold impact tests at -40°C
- Excellent electrical, thermal and physical properties
- Resistant to crush, compression cuts and heat deformation

## Compliances:

### Industry Compliances:

- UL 44 Type RHH/RHW-2, UL File #E39406
- National Electrical Code (NEC®)

### Flame Test Compliances:

- UL 2556 Horizontal Burn
- CT UL 1685, RHH/RHW-2
- UL 2556 VW-1

### Other Compliances:

- OSHA Acceptable
- RoHS Compliant

## Packaging:

- Material cut to length and shipped on non-returnable wood reels



CATALOG NUMBER	COND. SIZE (AWG/ kcmil)	NUMBER OF WIRES	NOMINAL CONDUCTOR DIAMETER		MIN. AVG. INSULATION THICKNESS		NOM. CABLE DIAMETER		ALUMINUM CONDUCTOR WEIGHT		NET WEIGHT	
			IN	mm	IN	mm	IN	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km
6 AWG - 1000 kcmil CONDUCTORS												
80006*	6	7	0.169	4.29	0.070	1.78	0.309	7.85	25	37	49	73
80004*	4	7	0.213	5.41	0.070	1.78	0.353	8.97	39	58	68	101
80002*	2	7	0.268	6.81	0.070	1.78	0.408	10.36	62	92	96	143
80001*	1	8	0.298	7.57	0.090	2.29	0.478	12.14	79	118	129	192
80110*	1/0	10	0.337	8.56	0.090	2.29	0.517	13.13	99	147	155	231
80210*	2/0	12	0.374	9.50	0.090	2.29	0.554	14.07	125	186	186	277
80310*	3/0	16	0.421	10.69	0.090	2.29	0.601	15.27	158	235	225	335
80410*	4/0	19	0.470	11.94	0.090	2.29	0.650	16.51	199	296	272	405
80250*	250	23	0.514	13.06	0.105	2.67	0.724	18.93	235	350	327	487
80300*	300	22	0.566	14.38	0.105	2.67	0.776	19.71	282	420	382	568
80350*	350	26	0.607	15.42	0.105	2.67	0.817	20.75	329	490	436	649
80400*	400	37	0.659	16.74	0.105	2.67	0.869	22.07	376	560	485	722
80500*	500	37	0.736	18.69	0.105	2.67	0.946	24.03	471	701	590	878
80600*	600	61	0.813	20.65	0.120	3.05	1.053	26.75	565	841	715	1064
80750*	750	61	0.908	23.06	0.120	3.05	1.148	29.16	706	1051	872	1298
80100*	1000	61	1.060	26.92	0.120	3.05	1.300	33.02	941	1400	1133	1686

Dimensions and weights are nominal; subject to industry tolerances.

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

## COLOR CODE CHART

COLOR CODE	COLOR	COLOR CODE	COLOR
1	Black	7	Blue
2	White	8	Orange
3	Red	9	Gray
4	Green	A	Purple
5	Yellow	C	Tan
6	Brown		



# SunGen® Photovoltaic Wire

XLPE, RHH or RHW-2

600 V, UL Type PV, Single Conductor, Aluminum



## Product Construction:

### Conductor:

- 6 AWG thru 2 AWG Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801
- 1 AWG thru 350 kcmil compact stranded SIW aluminum alloy (8000 Series) per ASTM B800, ASTM B801 and ASTM B836
- 400 kcmil thru 1000 kcmil Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801

### Insulation:

- Flame-retardant Cross-linked Polyethylene (XLPE)
- RHH/RHW-2 (XLPE)

### Print:

- GENERAL CABLE® (PLANT OF MFG) SIZE (AWG OR KCMIL) (MM²) COMPACT SUNGEN® AA-8030 AL XLPE 600 V RHH RHW-2 90°C SUN RES (-40°C) PV WIRE VW-1 DIR BUR (UL) YEAR DATE (TIME OF MFG) SEQUENTIAL FOOTAGE

### Options:

- Other sizes and stranding options available upon request
- CT for 1/0 AWG and larger, RHH/RHW-2
- Available in black and full color skin coat

### Applications:

- Single conductor, sunlight-resistant, direct burial photovoltaic wire rated 90°C wet or dry, 600 V, for interconnection wiring of grounded and ungrounded photovoltaic power systems described in NEC® Article 690
- Stable electrical properties over a broad temperature range
- General purpose building wire for use primarily in conduit or other recognized raceways as specified in the National Electric Code® (NEC®)
- Maximum operating temperature not to exceed 90°C in wet or dry locations

### Features:

- Oil Resistant PRI/PRII
- Gas and Oil Res GRI/GRII
- UV/sunlight-resistant, moisture-resistant and flame-retardant insulation in all colors
- Meets cold bend and cold impact tests at -40°C
- Excellent electrical, thermal and physical properties
- Resistant to crush, compression cuts and heat deformation
- Rated for direct burial

### Compliances:

#### Industry Compliances:

- UL 4703 Type PV, UL File #E343277
- UL 44 Type RHH or RHW-2, UL File #39406
- National Electrical Code (NEC®)

#### Flame Test Compliances:

- UL 2556 Horizontal Burn
- CT UL 1685, RHH/RHW-2
- VW-1 UL 2556

#### Other Compliances:

- RoHS Compliant
- OSHA Acceptable

### Packaging:

- Material cut to length and shipped on non-returnable wood reels



COND. SIZE (AWG/kcmil)	NUMBER OF WIRES	NOMINAL CONDUCTOR DIAMETER		MIN. AVG. INSULATION THICKNESS		NOMINAL CABLE DIAMETER		ALUMINUM CONDUCTOR WEIGHT		NET WEIGHT	
		IN	mm	IN	mm	IN	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km
6 AWG - 1000 kcmil CONDUCTORS											
6*	7	0.169	4.29	0.075	1.91	0.319	8.10	25	37	51	76
4*	7	0.213	5.41	0.075	1.91	0.363	9.22	39	58	70	104
2*	7	0.268	6.81	0.075	1.91	0.418	10.62	62	92	99	147
1*	8	0.298	7.57	0.095	2.41	0.488	12.40	79	118	132	196
1/0*	10	0.337	8.56	0.095	2.41	0.527	13.39	99	147	159	237
2/0*	12	0.374	9.50	0.095	2.41	0.564	14.33	125	186	190	283
3/0*	16	0.421	10.69	0.095	2.41	0.611	15.52	158	235	230	342
4/0*	19	0.470	11.94	0.095	2.41	0.660	16.76	199	296	279	415
250*	23	0.514	13.06	0.110	2.79	0.734	18.64	235	350	336	500
300*	22	0.566	14.38	0.110	2.79	0.786	19.96	282	420	392	583
350*	26	0.607	15.42	0.110	2.79	0.827	21.01	329	490	446	664
400*	37	0.659	16.74	0.110	2.79	0.879	22.33	376	560	495	737
500*	37	0.736	18.69	0.110	2.79	0.956	24.28	471	701	602	896
600*	61	0.813	20.65	0.125	3.18	1.063	27.00	565	841	729	1085
750*	61	0.908	23.06	0.125	3.18	1.158	29.41	706	1051	888	1321
1000*	61	1.060	26.92	0.125	3.18	1.310	33.27	941	1400	1151	1713

Dimensions and weights are nominal; subject to industry tolerances.

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

## COLOR CODE CHART

COLOR CODE	COLOR	COLOR CODE	COLOR
1	Black	7	Blue
2	White	8	Orange
3	Red	9	Gray
4	Green	A	Purple
5	Yellow	C	Tan
6	Brown		

# STABILOY® Brand USE-2/RHH/RHW-2

## XLPE, Low-Voltage Power

### 600 V, UL Type USE-2/RHH/RHW-2, Single Conductor, Aluminum

#### Product Construction:

##### Conductor:

- 6 AWG thru 4 AWG Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801
- 1 AWG thru 350 kcmil compact stranded SIW aluminum alloy (8000 Series) per ASTM B800, ASTM B801 and ASTM B836
- 400 kcmil thru 1000 kcmil Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801

##### Insulation:

- Flame-retardant Cross-linked Polyethylene (XLPE)

##### Print:

- GENERAL CABLE® (PLANT OF MFG) SIZE (AWG OR KCMIL) (MM<sup>2</sup>) COMPACT STABILOY® AA-8030 AL XLPE 600 V USE-2 OR RHH OR RHW-2 SUN RES (UL) YEAR DATE (TIME OF MFG)

##### Options:

- Other sizes and stranding options available upon request

#### Applications:

- STABILOY® Brand Type USE-2/RHH/RHW-2 cable is designed for use in residential, commercial and industrial building applications, and also in underground power distribution and network systems. The cable is also listed for RHH or RHW-2 and is suitable for installation on both sides of service-point
- Triple-Rated (USE-2 or RHH or RHW-2 URD) conductors can be used as Type USE-2 direct-buried underground service entrance cable, but are also listed as RHH and RHW-2, making them suitable for interior and exterior applications in raceways for general purpose lighting and power circuits covered under the National Electrical Code®
- 600 V approved for use as specified by the NEC®

#### Features:

- Rated 90°C wet or dry locations
- Oil Resistant PRI/PRII
- Gas and Oil Res GRI/GRII
- UV/sunlight-resistant, moisture-resistant and flame-retardant insulation
- Meets cold bend and cold impact tests at -40°C
- Excellent electrical, thermal and physical properties
- Resistant to crush, compression cuts and heat deformation
- STABILOY® Brand AA-8000 aluminum alloy conductors are lightweight and provide increased flexibility for easy installation

#### Compliances:

##### Industry Compliances:

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

##### Flame Test Compliances:

- UL 2556 Horizontal Burn

##### Other Compliances:

- OSHA Acceptable
- RoHS Compliant

#### Packaging:

- Material cut to length and shipped on non-returnable wood reels



CATALOG NUMBER	COND. SIZE (AWG/kcmil)	NO. OF WIRES	NOMINAL CONDUCTOR DIAMETER		MIN. AVG. INSULATION THICKNESS		NOMINAL CABLE DIAMETER		ALUMINUM CONDUCTOR WEIGHT		NET WEIGHT		AMPACITY (1) 30°C AMBIENT	
			IN	mm	IN	mm	IN	mm	LBS/ 1000 FT	kg/km	LBS/ 1000 FT	kg/km	@75°C	@90°C
6 AWG - 1000 kcmil CONDUCTORS														
86006	6	7	0.169	4.29	0.060	1.52	0.289	7.34	25	37	45	67	50	55
86004	4	7	0.213	5.41	0.060	1.52	0.333	8.46	39	58	63	94	65	75
86002	2	7	0.268	6.81	0.060	1.52	0.388	9.86	63	94	91	135	90	100
86001	1	8	0.298	7.57	0.080	2.03	0.458	11.63	79	118	123	183	100	115
86110	1/0	10	0.337	8.56	0.080	2.03	0.497	12.62	99	147	148	220	120	135
86210	2/0	12	0.374	9.50	0.080	2.03	0.534	13.56	125	186	179	266	135	150
86310	3/0	16	0.421	10.69	0.080	2.03	0.581	14.76	158	235	218	324	155	175
86410	4/0	19	0.470	11.94	0.080	2.03	0.630	16.00	199	296	264	393	180	205
86250	250	23	0.514	13.06	0.095	2.41	0.704	17.88	235	350	319	475	205	230
86300*	300	22	0.566	14.38	0.095	2.41	0.756	19.20	282	420	374	557	230	260
86350	350	26	0.607	15.42	0.095	2.41	0.797	20.24	329	490	427	635	250	280
86400*	400	37	0.659	16.74	0.095	2.41	0.849	21.56	377	561	475	707	270	305
86500	500	37	0.736	18.69	0.095	2.41	0.926	23.52	471	701	580	863	310	350
86600*	600	61	0.813	20.65	0.110	2.79	1.033	26.24	565	841	704	1048	340	385
86750	750	61	0.908	23.06	0.110	2.79	1.128	28.65	706	1051	860	1280	385	435
86100*	1000	61	1.060	26.92	0.110	2.79	1.280	32.51	941	1400	1120	1667	445	500

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.

Dwelling - For dwelling units, conductors shall be permitted as listed ampacities at 120/240-volt, 3-wire, single-phase services and feeders.

# NUAL® Brand RW90 High Speed (HS)

## XLPE, Low-Voltage Power

### 600 V, CSA Type RW90, Single 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 350 kcmil compact stranded SIW aluminum alloy (8000 Series) per ASTM B800, ASTM B801 and ASTM B836
- 400 kcmil thru 1000 kcmil Class B compact stranded aluminum alloy (8000 Series) per ASTM B800 and ASTM B801

##### Insulation:

- Flame-retardant Cross-linked Polyethylene (XLPE)

##### Print:

- GENERAL CABLE® (PLANT OF MFG) SIZE (AWG OR KCMIL)(MM<sup>2</sup>) AL ACM NUAL® RW90 XLPE HS (-40°C) 600 V SUN RES CSA LL 28117 YEAR DATE (TIME OF MFG) SEQUENTIAL METER MARK

#### Options:

- Other sizes and stranding options available upon request
- Available in non-High Speed
- Available in black and full color skin coat
- Available in FeederPlex HS® Type RW90

#### Applications:

- In accordance with Canadian Electrical Code (CEC), Part 1
- For wiring exposed to the weather
- For use in raceways (except cable trays) in dry, damp or wet locations in accordance with Canadian Electrical Code (CEC)
- For termination and splicing of aluminum conductors, refer to CEC Rule 12-118
- Type RW90 XPLE is certified to be pulled into underground ducts
- Standard RW90 XLPE is not approved for direct burial in the earth

#### Features:

- Rated 90°C wet and dry locations
- UV/sunlight-resistant, moisture-resistant and flame-retardant insulation in all colors
- Meets cold bend and cold impact tests at -40°C
- Excellent electrical, thermal and physical properties
- Resistant to crush, compression cuts and heat deformation
- High Speed (HS) cable features a specially designed XLPE insulation that allows for fast and easy cable pulls

#### Compliances:

##### Industry Compliances:

- CSA C22.2 No. 38 Type RW90, CSA File # LL 28117
- Canadian Electrical Code (CEC)

##### Other Compliances:

- OSHA Acceptable
- RoHS Compliant

#### Packaging:

- Material cut to length and shipped on non-returnable wood reels



CATALOG NUMBER	COND. SIZE (AWG/kcmil)	NO. OF WIRES	NOMINAL CONDUCTOR DIAMETER		MIN. AVG. INSULATION THICKNESS		NOMINAL CABLE DIAMETER		ALUMINUM CONDUCTOR WEIGHT		NET WEIGHT		AMPACITY (1) 30°C AMBIENT	
			IN	mm	IN	mm	IN	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km	@75°C	@90°C
8 AWG - 1000 kcmil CONDUCTORS														
19008	8	7	0.134	3.40	0.045	1.14	0.224	5.69	16	24	26	39	30	30
19006	6	7	0.169	4.29	0.045	1.14	0.259	6.58	25	37	39	58	50	55(2)
19004	4	7	0.213	5.41	0.045	1.14	0.303	7.70	39	58	56	83	65	65
19002	2	7	0.268	6.81	0.045	1.14	0.358	9.09	62	92	83	124	90	95(2)
19001	1	8	0.298	7.57	0.055	1.40	0.408	10.36	79	118	108	161	100	105
19011	1/0	10	0.337	8.56	0.055	1.40	0.447	11.35	99	147	132	196	120	120
19021	2/0	12	0.374	9.50	0.055	1.40	0.484	12.29	125	186	162	241	135	145
19031	3/0	16	0.421	10.69	0.055	1.40	0.531	13.49	158	235	199	296	155	165
19041	4/0	19	0.470	11.94	0.055	1.40	0.580	14.73	199	296	244	363	180	185(2)
19025	250	23	0.514	13.06	0.065	1.65	0.644	16.36	235	350	292	435	205	215
19030	300	22	0.566	14.38	0.065	1.65	0.696	17.68	282	420	345	513	230	240
19035	350	26	0.607	15.42	0.065	1.65	0.737	18.72	329	490	397	591	250	260
19040	400	37	0.659	16.74	0.065	1.65	0.789	20.04	376	560	443	659	270	290
19050	500	37	0.736	18.69	0.065	1.65	0.866	22.00	471	701	544	810	310	330
19060	600	61	0.813	20.65	0.080	2.03	0.973	24.71	565	841	664	988	340	370
19075	750	61	0.908	23.06	0.080	2.03	1.068	27.13	706	1051	817	1216	385	405
19000	1000	61	1.060	26.92	0.080	2.03	1.220	30.99	941	1400	1071	1594	445	480

Dimensions and weights are nominal; subject to industry tolerances.

(1) Ampacity based on the Canadian Electrical Code (CEC) Part 1 Table 4 for three conductors in raceway. Refer to CEC Rules 4-004 and 4-006.

(2) For 3 wires, 120/240 V and 120/208 V residential services or subservices, the allowable ampacity for #6 AWG shall be 60A. In this case, the 5% adjustment of CEC Rule 8-106(1) cannot be applied. Refer to CEC® Rule 4-004(23) and Table 39.

#### COLOR CODE CHART

COLOR CODE	COLOR
01	Black
02	White
03	Red
04	Orange
05	Yellow
06	Green
07	Blue
08	Brown

#### PACKAGING CODE CHART

PACKAGING CODE	PACKAGING
95	300 Meters
60	600 Meters
97	900 Meters
98	1200 Meters
99	1500 Meters
90	3000 Meters
96	6000 Meters

# STABILOY® Brand Mobile Home Feeder Cable

## XLPE, Low-Voltage Power

### 600 V, UL Type USE-2/RHH/RHW-2, Multi-Conductor, Aluminum

#### Product Construction:

##### Conductor:

- 6 AWG thru 4 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)

##### Print:

- GENERAL CABLE® (PLANT OF MFG) SIZE AWG (MM²) COMPACT STABILOY® AA-8030 AL XLPE 600 V USE-2 OR RHH OR RHW-2 SUN RES (UL) YEAR DATE (TIME OF MFG)

#### Applications:

- STABILOY® Brand mobile home feeder cable is listed for direct burial applications and approved for use in raceways and underground installations in accordance with the requirements of the National Electrical Code®

#### Features:

- Oil Resistant PRI/PRII
- Gas and Oil Res GRI/GRII
- Rated 90°C wet or dry locations
- UV/sunlight-resistant, moisture-resistant and flame-retardant insulation
- Meets cold bend and cold impact tests at -40°C
- Excellent electrical, thermal and physical properties
- Resistant to crush, compression cuts and heat deformation
- STABILOY® Brand AA-8000 aluminum alloy conductors are lightweight and provide increased flexibility for easy installation

#### Compliances:

##### Industry Compliances:

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

##### Flame Test Compliances:

- UL 2556 Horizontal Burn

##### Other Compliances:

- OSHA Acceptable
- RoHS Compliant

#### Packaging:

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



CATALOG NUMBER		CONDUCTOR SIZE AWG	PHASE/NEUTRAL INSULATION THICKNESS		GROUND INSULATION THICKNESS		ASSEMBLY DIAMETER		ALUMINUM CONDUCTOR WEIGHT		NET WEIGHT	
			IN	mm	IN	mm	IN	mm	LBS/1000 FT	kg/km	LBS/1000 FT	kg/km
500'	1000'		TWO CONDUCTORS WITH NEUTRAL AND GROUND									
156380	144922	2-2-4-6	0.060	1.52	0.060	1.52	0.937	23.8	188	280	294	438
146485*	135027AC	2-2-2-4	0.060	1.52	0.060	1.52	0.937	23.8	226	336	340	506
*	*	2/0-2/0-1-4	0.080	2.03	0.060	1.52	1.288	32.7	367	546	558	830
*	*	2/0-2/0-2/0-1	0.080	2.03	0.060	1.52	1.288	32.7	452	673	677	1007
151689	140231	4/0-4/0-2/0-4	0.080	2.03	0.060	1.52	1.521	38.6	560	833	790	1176
*	190193	4/0-4/0-4/0-2/0	0.080	2.03	0.060	1.52	1.521	38.6	719	1070	997	1484

Dimensions and weights are nominal; subject to industry tolerances.

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

# Environmental Product Declaration



According to  
ISO 14025, EN 15804+A2,  
ISO 14040, ISO 14044

**Prysmian Low Voltage Thermoset Aluminum Building Cable**  
Industrial and Construction Cables

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## Placing on the Market / Application Rules

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The standards that can be applied for STABILOY® Brand UL Type XHHW-2 are:

- UL 44 Type XHHW-2
- UL 2556 Horizontal Burn, VW-1
- CT UL 1685
- National Electrical Code (NEC®)

The standards that can be applied for STABILOY® Brand UL Type USE-2/RHH/RHW-2 are:

- UL 854 Type USE-2
- UL 44 for Types RHH and RHW-2
- UL 2556 Horizontal Burn
- National Electrical Code (NEC®)

The standards that can be applied for STABILOY® Brand Zephyr2000 UL Type RHH/RHW-2 are:

- UL 44 for Types RHH and RHW-2
- UL 2556 Horizontal Burn, VW-1
- CT UL 1685
- National Electrical Code (NEC®)

The standards that can be applied for NUAL® Brand CSA Type RW90/RWU90 High Speed (HS) cable are:

- ASTM B800, ASTM B801, ASTM B836
- CSA C22.2 No. 38 Type RW90, RWU90
- Canadian Electrical Code (CEC)

The standards that can be applied for SunGen® Photovoltaic Wire UL Type PV are:

- ASTM B800, ASTM B801, ASTM B836
- UL 4703 Type PV
- UL 44 Type RHH or RHW-2
- UL 2556 Horizontal Burn, VW-1
- CT UL 1685, RHH/RHW-2
- National Electrical Code (NEC®)

The standards that can be applied for SunGen® Photovoltaic Wire CSA Type RPV90, RPVU90 are:

- ASTM B800, ASTM B801, ASTM B836
- CSA 22.2 No. 271
- CSA 22.2 No. 2556
- Canadian Electrical Code (CEC)

The standards that can be applied for STABILOY® Brand Mobile Home Feeder Cable UL Type USE-2/RHH/RHW-2 are

- ASTM B800, ASTM B801, ASTM B836
- UL 854 Type USE-2/RHH/RHW-2
- UL 44 for Types RHH and RHW-2
- UL 2556 Horizontal Burn
- National Electrical Code (NEC®)

All products meet:

- OSHA Acceptable
- RoHS Compliant



# Environmental Product Declaration



According to

ISO 14025, EN 15804+A2,  
ISO 14040, ISO 14044

Prysmian Low Voltage Thermoset Aluminum Building Cable  
Industrial and Construction Cables

## Properties of Declared Product as Shipped

Prysmian Low Voltage Thermoset Aluminum Building Wire 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	To transmit energy 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. Lifetime and use rate correspond to the application of energy distribution network as defined in the table given in Appendix 6.1. of the specific rules for wire, cables and accessories.	
Maximum Mass	4023	kg
Conversion factor to 1 kg	0.0002	-

### 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



According to

ISO 14025, EN 15804+A2,  
ISO 14040, ISO 14044

## Prysmian Low Voltage Thermoset Aluminum Building Cable

Industrial and Construction Cables

### Reference Service Life

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The reference service life of a properly installed Prysmian 500 4C RWFPLX EG BRBWNGD 600M is 40 years.

### Allocation

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Allocation of manufacturing was determined by mass, in kilogram per kilometer.

### Cut-off Criteria

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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

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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

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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

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

### Treatment of Biogenic Carbon

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

### Comparability and Benchmarking

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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.

# Environmental Product Declaration



According to  
ISO 14025, EN 15804+A2,  
ISO 14040, ISO 14044

Prysmian Low Voltage Thermoset Aluminum Building Cable  
Industrial and Construction Cables

## 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.

### Units

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

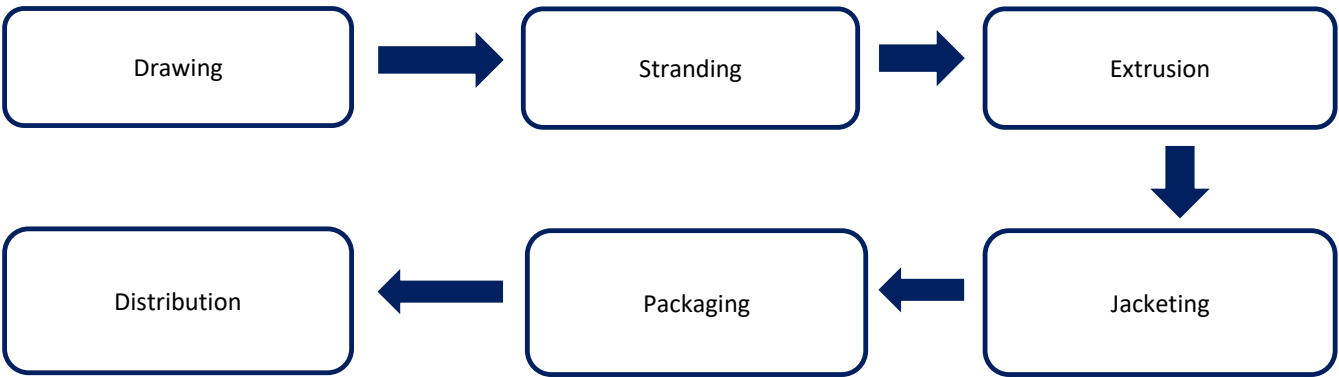
## Additional Environmental Information

### 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



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## Prysmian Low Voltage Thermoset Aluminum Building Cable

Industrial and Construction Cables

### Packaging

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

Material	Quantity (% By Weight)
	Maximum
Paper	0.00%
Metal	0.00%
Plastic	0.00%
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 <sup>3</sup>
Weight of products transported	4023	kg
Volume of products transported	-	m <sup>3</sup>

### 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 into the building (A5)		
Name	Max	Unit
Water consumption	-	m <sup>3</sup>
Other energy carriers	-	MJ
Product loss per functional unit	2.01E+02	kg
Waste materials at construction site	4.03E+03	kg
Output substance (recycle)	2.09E+03	kg
Output substance (landfill)	1.94E+03	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	1.01E+01	kg CO <sub>2</sub>
VOC emissions	-	kg

\*CO<sub>2</sub> emissions to air from disposal of packaging

Reference Service Life		
Name	Value	Unit
Reference Service Life	40	years
Replacements	0	-

# Environmental Product Declaration



According to  
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Prysmian Low Voltage Thermoset Aluminum Building Cable  
Industrial and Construction Cables

## 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, but certain Prysmian products have an E3X coating that results in an energy saving effect at higher amperages. It is assumed that the use of E3X will reduce energy losses by 5%. The equation used to calculate the use phase is:

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

Where:

Z = linear resistivity of the cable in  $\Omega/\text{km}$ , provided by Prysmian

L = current in A, assumption is 1 A

$\Delta t$  = use time in seconds, assumption is 40 years

Operational Energy Use (B6)		
Name	Max	Unit per RSL
Water consumption (from tap, to sewer)	-	$\text{m}^3$
Electricity consumption	41.88	kWh
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, or landfill, in accordance with the PCR.

End of life (C1-C4)		
Name	Max	Unit
Collected separately	2.09E+03	kg
Collected as mixed construction waste	1.94E+03	kg
Reuse	0.00E+00	kg
Recycling	2.09E+03	kg
Landfilling	1.94E+03	kg
Incineration with energy recovery	0.00E+00	kg
Removals of biogenic carbon	-	kg



# Environmental Product Declaration



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Prysmian Low Voltage Thermoset Aluminum Building Cable  
Industrial and Construction Cables

## 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



According to

ISO 14025, EN 15804+A2,  
ISO 14040, ISO 14044

Prysmian Low Voltage Thermoset Aluminum Building Cable

Industrial and Construction Cables

## LCA Results - Maximum Impact - Results for Nual® Aluminum RW90 FPLX 500 kcmil, 4-Conductor Cable

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 Thermoplastic Aluminum Building Wire with the highest impact, which is the Nual Aluminum RW90 FPLX 500 KCMIL 4-Conductor Cable. 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 <sub>2</sub> -Eq.	2.52E+04	2.99E+02	1.73E+03	1.89E+01	1.59E-03	1.20E+03	1.33E+01	-2.17E+04	2.85E+04
ODP	Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	2.65E-05	1.13E-08	1.34E-06	2.20E-12	6.00E-14	9.82E-13	7.18E-13	4.05E-09	2.79E-05
AP Air	Acidification potential for air emissions	kg SO <sub>2</sub> -Eq.	1.72E+02	1.79E+00	1.05E+01	2.40E-02	9.52E-06	3.53E-01	8.28E-02	-6.64E+01	1.85E+02
EP	Eutrophication potential	kg N-Eq.	3.50E+00	9.94E-02	3.27E-01	1.99E-03	5.28E-07	9.89E-03	3.68E-03	-3.95E+00	3.94E+00
SP	Smog formation potential	kg O <sub>3</sub> -Eq.	1.64E+03	4.94E+01	1.32E+02	3.49E-01	2.62E-04	2.40E+00	1.55E+00	-1.26E+03	1.82E+03
FFD	Fossil Fuel Depletion	MJ-surplus	2.68E+04	5.28E+02	2.04E+03	2.03E+01	2.80E-03	5.83E+01	2.26E+01	-1.87E+04	2.94E+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 <sub>2</sub> -Eq.	2.51E+04	2.99E+02	1.74E+03	1.91E+01	1.59E-03	1.20E+03	1.34E+01	-2.17E+04	2.83E+04
ODP	Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	2.60E-05	1.13E-08	1.31E-06	1.30E-10	5.99E-14	5.81E-11	4.25E-11	-1.76E-07	2.73E-05
AP Air	Acidification potential for air emissions	kg SO <sub>2</sub> -Eq.	1.82E+02	1.47E+00	1.07E+01	2.30E-02	7.82E-06	2.95E-01	7.72E-02	-6.12E+01	1.94E+02
EP	Eutrophication potential	kg(PO <sub>4</sub> ) <sup>3</sup> -Eq.	9.25E+00	2.62E-01	8.71E-01	2.54E-03	1.39E-06	2.57E-02	8.68E-03	-7.59E+00	1.04E+01
POCP	Formation potential of tropospheric ozone photochemical oxidants	kg ethane-Eq.	1.12E+01	1.72E-01	9.09E-01	1.99E-03	9.14E-07	9.96E-03	6.25E-03	-5.05E+00	1.23E+01
ADPE	Abiotic depletion potential for non-fossil resources	kg Sb-Eq.	4.12E-03	1.24E-07	2.07E-04	2.31E-06	6.59E-13	9.49E-06	4.13E-06	-9.12E-03	4.35E-03
ADPF	Abiotic depletion potential for fossil resources	MJ	3.28E+05	3.81E+03	2.14E+04	2.30E+02	2.02E-02	5.52E+02	1.71E+02	-2.05E+05	3.54E+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



According to

ISO 14025, EN 15804+A2,  
ISO 14040, ISO 14044

## Prysmian Low Voltage Thermoset Aluminum Building Cable

Industrial and Construction Cables

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 <sub>2</sub> -Eq.	2.54E+04	3.00E+02	1.65E+03	1.93E+01	1.59E-03	1.20E+03	1.35E+01	-2.18E+04	2.85E+04
GWP-fossil	Climate change - fossil	kg CO <sub>2</sub> -Eq.	2.54E+04	3.00E+02	1.64E+03	1.93E+01	1.59E-03	1.20E+03	1.34E+01	-2.18E+04	2.85E+04
GWP-biogenic	Climate change - biogenic	kg CO <sub>2</sub> -Eq.	-1.01E+01	0.00E+00	1.01E+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 <sub>2</sub> -Eq.	3.76E-01	0.00E+00	3.83E-02	1.96E-03	0.00E+00	3.13E-02	8.03E-02	-4.22E+00	5.28E-01
ODP	Ozone depletion	kg CFC-11 Eq.	2.63E-05	7.77E-09	1.32E-06	1.10E-10	4.13E-14	4.93E-11	3.61E-11	-1.49E-07	2.76E-05
AP	Acidification	mol H <sup>+</sup> Eq.	2.08E+02	1.99E+00	1.25E+01	2.60E-02	1.06E-05	1.94E-01	9.51E-02	-7.42E+01	2.23E+02
EP-freshwater	Eutrophication aquatic freshwater	kg P-Eq.	1.16E-02	8.54E-05	4.88E-03	1.07E-05	4.53E-10	1.86E-05	3.05E-05	-3.01E-02	1.67E-02
EP-marine	Eutrophication aquatic marine	kg N Eq.	2.63E+01	7.65E-01	2.07E+00	5.76E-03	4.06E-06	4.14E-02	2.45E-02	-2.01E+01	2.92E+01
EP-terrestrial	Eutrophication terrestrial	mol N Eq.	2.87E+02	8.34E+00	2.23E+01	6.22E-02	4.43E-05	8.88E-01	2.70E-01	-2.19E+02	3.19E+02
POCP	Photochemical ozone formation	NMVOE Eq.	8.84E+01	2.25E+00	6.86E+00	1.68E-02	1.20E-05	1.15E-01	7.49E-02	-5.62E+01	9.77E+01
ADP-minerals&metals	Depletion of abiotic resources - minerals and metals	kg Sb Eq.	7.17E-04	0.00E+00	3.54E-05	1.85E-06	0.00E+00	3.41E-06	8.68E-07	-2.08E-03	7.59E-04
ADP-fossil	Depletion of abiotic resources - fossil fuels	mol N Eq.	3.40E+05	3.84E+03	2.20E+04	3.20E+02	2.04E-02	5.81E+02	1.77E+02	-2.50E+05	3.67E+05
WDP	Water use	m <sup>3</sup> world Eq. deprived	4.70E+02	0.00E+00	2.29E+01	3.80E+00	0.00E+00	9.39E+01	1.53E+00	-3.65E+03	5.92E+02
PM	Particulate matter emissions	Disease incidence	3.09E-03	7.84E-06	1.61E-04	2.41E-07	4.16E-11	2.19E-06	1.19E-06	-1.62E-03	3.27E-03
IRP	Ionizing radiation, human health	kBq U235 Eq.	2.12E+02	6.75E-17	8.18E+00	2.64E+00	3.59E-22	8.85E-01	2.14E-01	-1.68E+03	2.24E+02
ETP-fw	Ecotoxicity (freshwater)	CTUe	1.53E+05	5.57E+03	1.50E+04	5.13E+01	2.96E-02	5.72E+02	1.18E+02	-5.93E+04	1.74E+05
HTP-c	Human toxicity, cancer effects	CTUh	2.60E-06	8.09E-08	2.38E-07	2.55E-09	4.29E-13	1.52E-08	2.40E-09	-1.67E-05	2.94E-06
HTP-nc	Human toxicity, non-cancer effects	CTUh	1.58E-04	5.50E-06	1.53E-05	4.34E-08	2.92E-11	1.36E-06	9.28E-08	-1.92E-04	1.80E-04
SQP	Land use related impacts/Soil quality	dimensionless	1.15E+03	0.00E+00	3.12E+01	3.55E+01	0.00E+00	5.22E+01	4.86E+01	-5.20E+04	1.32E+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 <sub>E</sub>	Renewable primary energy as energy carrier	MJ	2.22E+03	0.00E+00	5.32E+01	8.26E+01	0.00E+00	3.68E+01	3.08E+01	-1.64E+05	2.42E+03
RPR <sub>M</sub>	Renewable primary energy resources as material utilization	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
NRPR <sub>E</sub>	Nonrenewable primary energy as energy carrier	MJ	3.40E+05	3.84E+03	2.20E+04	3.20E+02	2.04E-02	5.81E+02	1.77E+02	-2.50E+05	3.67E+05
NRPR <sub>M</sub>	Nonrenewable primary energy as material utilization	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
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 <sup>3</sup>	1.40E+01	0.00E+00	6.64E-01	1.16E-01	0.00E+00	2.20E+00	4.68E-02	-1.12E+02	1.70E+01

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

Environmental Product Declaration



According to  
ISO 14025, EN 15804+A2,  
ISO 14040, ISO 14044

Prysmian Low Voltage Thermoset Aluminum Building Cable  
Industrial and Construction Cables

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	4.09E-05	0.00E+00	1.93E-06	1.86E-07	0.00E+00	9.90E-08	4.40E-08	-1.78E-04	4.32E-05
NHWD	Non-hazardous waste disposed	kg	3.19E+02	0.00E+00	1.78E+02	9.18E-02	0.00E+00	1.05E+02	8.95E+02	-9.87E+03	1.50E+03
HLRW	High-level radioactive waste	kg	2.56E+00	0.00E+00	1.13E-01	3.20E-02	0.00E+00	1.02E-02	1.85E-03	-1.65E+01	2.72E+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	1.04E+02	0.00E+00	0.00E+00	0.00E+00	2.09E+03	0.00E+00	2.19E+03
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	3.71E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E+01

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

# Environmental Product Declaration



According to

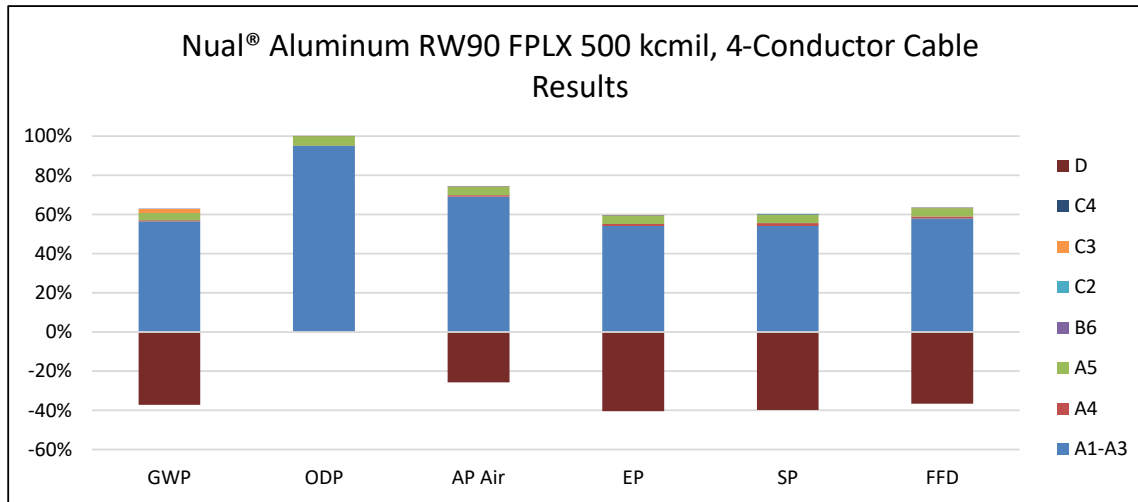
ISO 14025, EN 15804+A2,  
ISO 14040, ISO 14044

Prysmian Low Voltage Thermoset Aluminum Building Cable

Industrial and Construction Cables

## 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.



## Prysmian Low Voltage Thermoset Aluminum Building Cable

Industrial and Construction Cables

### 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. Please see page 10 for a guide on the system boundary and the life cycle phases used below.

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 product listed below, you would follow the equation below. 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.

$$\text{Scaling Factor} * \text{Results} = \text{Final GWP}$$

STABILOY® AL XHHW-2 6  
AWG

$$1.34\text{E-}02 * 2.52\text{E+}04 = 3.39\text{E+}02$$

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 B6 GWP for the product below, you would follow the equation below:

$$\text{Scaling Factor} * \text{Results} * \text{Amperage-squared} = \text{Final GWP}$$

STABILOY® AL XHHW-2 6  
AWG

$$2.20\text{E+}00 * 1.89\text{E+}01 * 100^2 = 4.16\text{E+}05$$

	A1 - A3							A4	A5	B6	C2 - D
	GWP	ODP	AP	EP	PCOP	FFD/ADP	Resources				
STABILOY® AL XHHW-2 6 AWG	1.34E-02	1.23E-02	1.26E-02	1.34E-02	1.30E-02	1.66E-02	1.67E-02	1.47E-02	1.47E-02	2.20E+00	1.47E-02
STABILOY® AL XHHW-2 4 AWG	2.12E-02	1.96E-02	1.99E-02	2.08E-02	2.03E-02	2.46E-02	2.46E-02	2.23E-02	2.23E-02	1.38E+00	2.23E-02
STABILOY® AL XHHW-2 2 AWG	3.13E-02	3.12E-02	3.12E-02	3.14E-02	3.13E-02	3.15E-02	3.15E-02	3.13E-02	3.13E-02	1.00E+00	3.13E-02
STABILOY® AL XHHW-2 1 AWG	4.02E-02	3.93E-02	3.95E-02	4.00E-02	3.97E-02	4.19E-02	4.19E-02	4.07E-02	4.07E-02	7.38E-01	4.07E-02
STABILOY® AL XHHW-2 1/0 AWG	4.94E-02	4.96E-02	4.95E-02	4.95E-02	4.94E-02	4.82E-02	4.82E-02	4.87E-02	4.87E-02	6.81E-01	4.87E-02
STABILOY® AL XHHW-2 CT 1/0 AWG	5.26E-02	4.96E-02	5.00E-02	5.32E-02	5.04E-02	5.39E-02	5.40E-02	5.05E-02	5.05E-02	6.81E-01	5.05E-02
STABILOY® AL XHHW-2 CT 2/0 AWG	6.50E-02	6.25E-02	6.28E-02	6.58E-02	6.29E-02	6.37E-02	6.38E-02	6.14E-02	6.14E-02	5.10E-01	6.14E-02

# Environmental Product Declaration



According to  
ISO 14025, EN 15804+A2,  
ISO 14040, ISO 14044

Prysmian Low Voltage Thermoset Aluminum Building Cable  
Industrial and Construction Cables

	A1 - A3							A4	A5	B6	C2 - D
	GWP	ODP	AP	EP	PCOP	FFD/ADP	Resources				
STABILOY® AL XHHW-2 3/0 AWG	7.67E-02	7.88E-02	7.82E-02	7.71E-02	7.73E-02	6.93E-02	6.91E-02	7.29E-02	7.29E-02	3.69E-01	7.29E-02
STABILOY® AL XHHW-2 CT 3/0 AWG	8.07E-02	7.88E-02	7.89E-02	8.16E-02	7.85E-02	7.63E-02	7.63E-02	7.51E-02	7.51E-02	3.69E-01	7.51E-02
STABILOY® AL XHHW-2 4/0 AWG	9.57E-02	9.94E-02	9.84E-02	9.63E-02	1.01E-01	8.29E-02	8.26E-02	9.01E-02	9.01E-02	2.91E-01	9.01E-02
STABILOY® AL XHHW-2 CT 4/0 AWG	1.00E-01	9.94E-02	9.92E-02	1.02E-01	9.83E-02	9.14E-02	9.14E-02	9.22E-02	9.22E-02	2.91E-01	9.22E-02
STABILOY® AL XHHW-2 250 kcmil	1.15E-01	1.17E-01	1.17E-01	1.15E-01	1.15E-01	1.04E-01	1.03E-01	1.09E-01	1.09E-01	2.79E-01	1.09E-01
STABILOY® AL XHHW-2 CT 250 kcmil	1.20E-01	1.17E-01	1.17E-01	1.21E-01	1.17E-01	1.12E-01	1.12E-01	1.11E-01	1.11E-01	2.79E-01	1.11E-01
STABILOY® AL XHHW-2 300 kcmil	1.39E-01	1.44E-01	1.43E-01	1.40E-01	1.40E-01	1.20E-01	1.19E-01	1.29E-01	1.29E-01	2.35E-01	1.29E-01
STABILOY® AL XHHW-2 CT 300 kcmil	1.45E-01	1.44E-01	1.44E-01	1.47E-01	1.42E-01	1.32E-01	1.32E-01	1.33E-01	1.33E-01	2.35E-01	1.33E-01
STABILOY® AL XHHW-2 350 kcmil	1.58E-01	1.65E-01	1.63E-01	1.59E-01	1.64E-01	1.34E-01	1.33E-01	1.47E-01	1.47E-01	2.00E-01	1.47E-01
STABILOY® AL XHHW-2 CT 350 kcmil	1.65E-01	1.65E-01	1.64E-01	1.67E-01	1.62E-01	1.47E-01	1.47E-01	1.50E-01	1.50E-01	2.00E-01	1.50E-01
STABILOY® AL XHHW-2 400 kcmil	1.73E-01	1.80E-01	1.78E-01	1.74E-01	1.75E-01	1.48E-01	1.48E-01	1.61E-01	1.61E-01	1.74E-01	1.61E-01
STABILOY® AL XHHW-2 CT 400 kcmil	1.81E-01	1.80E-01	1.79E-01	1.83E-01	1.77E-01	1.63E-01	1.63E-01	1.66E-01	1.66E-01	1.74E-01	1.66E-01
STABILOY® AL XHHW-2 500 kcmil	2.28E-01	2.40E-01	2.37E-01	2.30E-01	2.32E-01	1.88E-01	1.87E-01	2.08E-01	2.08E-01	1.38E-01	2.08E-01
STABILOY® AL XHHW-2 CT 500 kcmil	2.38E-01	2.40E-01	2.39E-01	2.41E-01	2.35E-01	2.05E-01	2.05E-01	2.14E-01	2.14E-01	1.38E-01	2.14E-01
STABILOY® AL XHHW-2 600 kcmil	2.76E-01	2.88E-01	2.85E-01	2.78E-01	2.80E-01	2.32E-01	2.31E-01	2.54E-01	2.54E-01	1.14E-01	2.54E-01
STABILOY® AL XHHW-2 CT 600 kcmil	2.86E-01	2.88E-01	2.87E-01	2.90E-01	2.83E-01	2.50E-01	2.49E-01	2.59E-01	2.59E-01	1.14E-01	2.59E-01
STABILOY® AL XHHW-2 700 kcmil	3.20E-01	3.37E-01	3.32E-01	3.23E-01	3.25E-01	2.65E-01	2.64E-01	2.93E-01	2.93E-01	1.01E-01	2.93E-01
STABILOY® AL XHHW-2 750 kcmil	3.56E-01	3.61E-01	3.58E-01	3.60E-01	3.52E-01	3.06E-01	3.06E-01	3.21E-01	3.21E-01	9.47E-02	3.21E-01
STABILOY® AL XHHW-2 CT 750 kcmil	3.56E-01	3.61E-01	3.58E-01	3.60E-01	3.52E-01	3.06E-01	3.06E-01	3.21E-01	3.21E-01	9.47E-02	3.21E-01
STABILOY® AL XHHW-2 900 kcmil	4.06E-01	4.29E-01	4.23E-01	4.09E-01	4.13E-01	3.28E-01	3.27E-01	3.68E-01	3.68E-01	7.85E-02	3.68E-01
STABILOY® AL XHHW-2 1000 kcmil	4.43E-01	4.71E-01	4.64E-01	4.47E-01	4.52E-01	3.51E-01	3.49E-01	3.99E-01	3.99E-01	6.89E-02	3.99E-01
STABILOY® AL XHHW-2 FPLX 2 AWG/3C	9.53E-02	9.36E-02	9.39E-02	9.48E-02	9.85E-02	9.80E-02	9.80E-02	9.67E-02	9.67E-02	1.00E+00	9.67E-02
STABILOY® AL XHHW-2 FPLX 1 AWG/3C + 4 AWG GRD	1.47E-01	1.43E-01	1.44E-01	1.46E-01	1.45E-01	1.56E-01	1.56E-01	1.50E-01	1.50E-01	7.38E-01	1.50E-01
STABILOY® AL XHHW-2 FPLX 1/0 AWG/3C + 4 AWG GRD	1.78E-01	1.75E-01	1.76E-01	1.77E-01	1.76E-01	1.81E-01	1.81E-01	1.78E-01	1.78E-01	6.81E-01	1.78E-01
STABILOY® AL XHHW-2 FPLX 2/0 AWG/3C + 4 AWG GRD	2.16E-01	2.15E-01	2.15E-01	2.15E-01	2.14E-01	2.10E-01	2.10E-01	2.11E-01	2.11E-01	5.10E-01	2.11E-01
STABILOY® AL XHHW-2 FPLX 250 kcmil/4C	4.79E-01	4.88E-01	4.86E-01	4.78E-01	4.79E-01	4.36E-01	4.35E-01	4.56E-01	4.56E-01	2.79E-01	4.56E-01
STABILOY® AL USE-2/RHH/RHW-2 6 AWG	1.45E-02	1.23E-02	1.28E-02	1.43E-02	1.37E-02	2.08E-02	2.10E-02	1.72E-02	1.72E-02	2.20E+00	1.72E-02
STABILOY® AL USE-2/RHH/RHW-2 4 AWG	2.18E-02	1.96E-02	2.01E-02	2.16E-02	2.09E-02	2.78E-02	2.79E-02	2.42E-02	2.42E-02	1.38E+00	2.42E-02
STABILOY® AL USE-2/RHH/RHW-2 2 AWG	3.24E-02	3.12E-02	3.15E-02	3.24E-02	3.20E-02	3.61E-02	3.62E-02	3.41E-02	3.41E-02	1.00E+00	3.41E-02

# Environmental Product Declaration



According to

ISO 14025, EN 15804+A2,  
ISO 14040, ISO 14044

## Prysmian Low Voltage Thermoset Aluminum Building Cable Industrial and Construction Cables

	A1 - A3							A4	A5	B6	C2 - D
	GWP	ODP	EP	AP	PCOP	FFD/ADP	Resources				
STABILOY® AL USE-2/RHH/RHW-2, 1 AWG	4.18E-02	3.93E-02	3.99E-02	4.17E-02	4.10E-02	4.96E-02	4.98E-02	4.55E-02	4.55E-02	7.38E-01	4.55E-02
STABILOY® AL USE-2/RHH/RHW-2, 1/0 AWG	5.17E-02	4.96E-02	5.01E-02	5.17E-02	5.11E-02	5.83E-02	5.84E-02	5.48E-02	5.48E-02	6.81E-01	5.48E-02
STABILOY® AL USE-2/RHH/RHW-2 2/0 AWG	6.40E-02	6.25E-02	6.29E-02	6.40E-02	6.35E-02	6.83E-02	6.84E-02	6.59E-02	6.59E-02	5.10E-01	6.59E-02
STABILOY® AL USE-2/RHH/RHW-2 4/0 AWG	9.85E-02	9.94E-02	9.92E-02	9.89E-02	9.89E-02	9.54E-02	9.54E-02	9.70E-02	9.70E-02	2.91E-01	9.70E-02
STABILOY® AL USE-2/RHH/RHW-2 250 kcmil	1.17E-01	1.17E-01	1.17E-01	1.18E-01	1.18E-01	1.17E-01	1.17E-01	1.17E-01	1.17E-01	2.79E-01	1.17E-01
STABILOY® AL USE-2/RHH/RHW-2 350 kcmil	1.62E-01	1.65E-01	1.64E-01	1.63E-01	1.63E-01	1.52E-01	1.52E-01	1.57E-01	1.57E-01	2.00E-01	1.57E-01
STABILOY® AL USE-2/RHH/RHW-2 500 kcmil	2.33E-01	2.40E-01	2.39E-01	2.35E-01	2.36E-01	2.09E-01	2.08E-01	2.21E-01	2.21E-01	1.38E-01	2.21E-01
STABILOY® AL USE-2/RHH/RHW-2 750 kcmil	3.48E-01	3.61E-01	3.57E-01	3.50E-01	3.52E-01	3.07E-01	3.06E-01	3.28E-01	3.28E-01	9.47E-02	3.28E-01
STABILOY® AL Mobile Home Feeder 2 AWG/3C + 4 AWG	1.25E-01	1.18E-01	1.19E-01	1.24E-01	1.22E-01	1.45E-01	1.46E-01	1.34E-01	1.34E-01	1.00E+00	1.34E-01
STABILOY® AL Mobile Home Feeder 2 AWG/2C + 4 AWG + 6 AWG	1.06E-01	9.81E-02	9.99E-02	1.05E-01	1.03E-01	1.28E-01	1.28E-01	1.15E-01	1.15E-01	1.00E+00	1.15E-01
STABILOY® AL Mobile Home Feeder 4/0 AWG/3C + 2/0 AWG	3.76E-01	3.75E-01	3.75E-01	3.76E-01	3.75E-01	3.75E-01	3.75E-01	3.75E-01	3.75E-01	2.91E-01	3.75E-01
STABILOY® AL Mobile Home Feeder 4/0 AWG/2C + 2/0 AWG + 4 AWG	2.96E-01	2.92E-01	2.93E-01	2.95E-01	2.94E-01	3.02E-01	3.03E-01	2.98E-01	2.98E-01	2.91E-01	2.98E-01
NUAL® AL RW90 6 AWG	1.50E-02	1.23E-02	1.30E-02	1.48E-02	1.52E-02	2.44E-02	2.46E-02	1.99E-02	1.99E-02	2.20E+00	1.99E-02
NUAL® AL RW90 4 AWG	2.24E-02	1.96E-02	2.04E-02	2.22E-02	2.17E-02	3.23E-02	3.25E-02	2.74E-02	2.74E-02	1.38E+00	2.74E-02
NUAL® AL RW90 3 AWG	2.75E-02	2.47E-02	2.54E-02	2.73E-02	2.77E-02	3.74E-02	3.76E-02	3.26E-02	3.26E-02	1.15E+00	3.26E-02
NUAL® AL RW90 2 AWG	3.39E-02	3.12E-02	3.19E-02	3.38E-02	3.33E-02	4.37E-02	4.39E-02	3.89E-02	3.89E-02	1.00E+00	3.89E-02
NUAL® AL RW90 1 AWG	4.36E-02	3.93E-02	4.04E-02	4.30E-02	4.23E-02	5.79E-02	5.81E-02	5.06E-02	5.06E-02	7.38E-01	5.06E-02
NUAL® AL RW90 1/0 AWG	5.31E-02	4.96E-02	5.05E-02	5.29E-02	5.23E-02	6.60E-02	6.62E-02	5.96E-02	5.96E-02	6.81E-01	5.96E-02
NUAL® AL RW90 2/0 AWG	6.56E-02	6.25E-02	6.34E-02	6.55E-02	6.93E-02	7.69E-02	7.71E-02	7.21E-02	7.21E-02	5.10E-01	7.21E-02
NUAL® AL RW90 3/0 AWG	8.13E-02	7.88E-02	7.95E-02	8.13E-02	8.61E-02	9.10E-02	9.11E-02	8.72E-02	8.72E-02	3.69E-01	8.72E-02
NUAL® AL RW90 4/0 AWG	1.01E-01	9.94E-02	9.98E-02	1.01E-01	1.01E-01	1.08E-01	1.08E-01	1.05E-01	1.05E-01	2.91E-01	1.05E-01
NUAL® AL RW90 250 kcmil	1.21E-01	1.17E-01	1.18E-01	1.21E-01	1.25E-01	1.33E-01	1.33E-01	1.28E-01	1.28E-01	2.79E-01	1.28E-01
NUAL® AL RW90 300 kcmil	1.46E-01	1.44E-01	1.45E-01	1.46E-01	1.46E-01	1.55E-01	1.55E-01	1.51E-01	1.51E-01	2.35E-01	1.51E-01
NUAL® AL RW90 350 kcmil	1.66E-01	1.65E-01	1.65E-01	1.66E-01	1.66E-01	1.73E-01	1.74E-01	1.70E-01	1.70E-01	2.00E-01	1.70E-01
NUAL® AL RW90 400 kcmil	1.82E-01	1.80E-01	1.80E-01	1.82E-01	1.82E-01	1.91E-01	1.91E-01	1.87E-01	1.87E-01	1.74E-01	1.87E-01

# Environmental Product Declaration



According to  
ISO 14025, EN 15804+A2,  
ISO 14040, ISO 14044

**Prysmian Low Voltage Thermoset Aluminum Building Cable**  
Industrial and Construction Cables

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## Additional Environmental Information

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### Environmental and Health During Manufacturing

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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

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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

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#### Fire

None

#### Water

None

#### Mechanical Destruction

None

### Delayed Emissions

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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

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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

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Prysmian Group  
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## References

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# Environmental Product Declaration



According to  
ISO 14025, EN 15804+A2,  
ISO 14040, ISO 14044

Prysmian Low Voltage Thermoset Aluminum Building Cable  
Industrial and Construction Cables

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## Contact Information

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### Study Commissioner

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- 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:

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### LCA Practitioner

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