

Environmental Product Declaration



EPD of multiple products, based on the average results of the product group

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

**KIMA DARK RED
KIMA DARK GREEN
KIMA THERMO PLUG IN
KIMA WFM 40 / ÖS VARMEMATTE-40
KIMA WFM 80 / ÖS VARMEMATTE-80
KIMA WFM 120 / ÖS VARMEMATTE-120
KIMA CURE / ÖS BETONGHERDING-40
KIMA FROST / ÖS FROSTSIKRING BETONG-16
KIMA ALU 18 / ÖS ALU-18**

from

KIMA Heating Cable AB



Programme:	The International EPD System, www.environdec.com
Programme operator:	EPD International AB
Type of EPD:	EPD of multiple products, based on the average results of the product group
EPD registration number:	EPD-IES-0028169
Version date:	2026-04-29
Validity date:	2031-04-29



An EPD may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com



GENERAL INFORMATION

Programme Information	
Programme:	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
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Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): CONSTRUCTION PRODUCTS PCR 2019:14 VERSION 2.0.1
PCR review was conducted by <i>The Technical Committee of the International EPD System</i> . See www.environdec.com for a list of members. Review chair: <i>Rob Rouwette (chair), Noa Meron (co-chair)</i> . The review panel may be contacted via the Secretariat at www.environdec.com/support .
c-PCR, if applicable: <i>N/A</i>

Third-party Verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:
<input checked="" type="checkbox"/> Individual EPD verification without a pre-verified LCA/EPD tool Third-party verifier: <i>Viktor Hakkarainen, CHM Analytics AB</i> Approved by: International EPD System


Procedure for follow-up of data during EPD validity involves third party verifier:
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

INFORMATION ABOUT EPD OWNER

Owner of the EPD: KIMA Heating Cable AB

Address: Dragarevägen 5 Box 2024 281 02 Hässleholm

Contact: Jan Anders Nilsson

LCA practitioners: Alexander Kyriakidis, AFRY, alexander.kyriakidis@afry.com; Ilmari Hieta, AFRY, Ilmari.hieta@afry.com

Description of the organisation: Producer of heating cables and heating elements for domestic and commercial applications and as well for the appliance industry.

Product-related or management system-related certifications: Certified according to ISO 9001, ISO 14001 and ISO 45000.

PRODUCT INFORMATION

Product name: Heating cable, (KIMA DARK RED, KIMA DARK GREEN, KIMA THERMO PLUG IN, KIMA WFM 40 / ÖS VARMEMATTE-40, KIMA WFM 80 / ÖS VARMEMATTE-80, KIMA WFM 120 / ÖS VARMEMATTE-120, KIMA CURE / ÖS BETONGHERDING-40, KIMA FROST / ÖS FROSTSIKRING BETONG-16, KIMA ALU 18 / ÖS ALU-18) see next page for article numbers and specifications of the cables covered by this EPD.

Name and location of production site(s): KIMA Heating Cable AB, Hässleholm, Sweden.

Visual representation of the product:



UN CPC code: 46340, Other electric conductors, for a voltage not exceeding 1000 V.

Product description: The heating cables provide sustained thermal energy for several applications, including underfloor heating, frost protection of water pipes, curing concrete, frost protection ground. The heating cable consists of metals and insulation. The product in the study is an average product and contains metals such as nickel, stainless steel, and copper that create varying resistances in the heating cable and thereby adjust the heat it emits.

The product has an outer sheath of PVC (Polyvinyl chloride) or modified crosslinked PE (Polyethylene). The total weight of 1 meter of average cable is 45.31 g.

KIMA DARK RED

To be used as underfloor heating in a thin floor construction in wet and dry areas.

KIMA DARK GREEN

To be used for frost protection water pipes. Approved to be installed in and on the water pipe. Perma frost protection of freezer rooms floor. Drainheater heatpumps.

KIMA THERMO PLUG IN

To be used for frost protection water pipes, installed outside of the water pipe.

KIMA WFM 40 / ÖS VARMEMATTE-40, KIMA WFM 80 / ÖS VARMEMATTE-80, KIMA WFM 120 / ÖS VARMEMATTE-120

To be used as underfloor heating in a thin floor construction in wet and dry areas. Underfloor heating in ordinary concrete construction in wet and dry areas on top of an existing concrete construction.

KIMA CURE / ÖS BETONGHERDING-40

To be used for curing and drying a concrete construction during the building process.

KIMA FROST / ÖS FROSTSIKRING BETONG-16

To be used for frostprotection of the ground under the concrete construction during the building process.

KIMA ALU 18 / ÖS ALU-18

To be used as underfloor heating in ordinary concrete construction in wet and dry areas.

The underfloor heating cables have an energy consumption of 1.95 kwh per year or 117.00 kWh over their 60 year service life. The frost protection cables have an energy consumption of 1.83 kWh per year or 54.90 kWh over their 30 year service life. Cable for concrete curing and frost protection ground, refer to their listed power output.

The heating cables have 100 % efficiency. Energy losses are only depending on how the installation is made and how well it is thermal insulated to save energy. To achieve the right performance and save energy is it important that the heating cables are properly installed and connected to an appropriate control unit, for underfloor heating an electronic thermostat with a floor sensor and for frost protection an electronic thermostat. While this EPD includes results for use phase emissions based on a most-likely scenario, the real world performance of the product is highly dependent on outside factors such as weather conditions and user behaviour.

This EPD presents results for an average heating cable that is weighted by production volumes. The cables covered by the EPD have differences in material composition and energy characteristics. To investigate which cables can be included in this EPD, different product cases provided by KIMA were modelled and compared. The following table lists the included cables.

Article number	EL number	Type	Product Name	Volt	Watt	Cable length m	Mat length m	Cable diam mm
12510125	----	12-4	KIMA DARK RED	230	135	12,5	----	4,50
12510210	----	12-4	KIMA DARK RED	230	230	21	----	4,50
12510290	----	12-4	KIMA DARK RED	230	315	29	----	4,50
12510420	----	12-4	KIMA DARK RED	230	450	42	----	4,50
12510500	----	12-4	KIMA DARK RED	230	550	50	----	4,50
12510600	----	12-4	KIMA DARK RED	230	660	60	----	4,50
12510660	----	12-4	KIMA DARK RED	230	730	66	----	4,50
12510770	----	12-4	KIMA DARK RED	230	840	77	----	4,50
12510880	----	12-4	KIMA DARK RED	230	950	88	----	4,50
12510950	----	12-4	KIMA DARK RED	230	1050	95	----	4,50
12511120	----	12-4	KIMA DARK RED	230	1230	112	----	4,50
12511250	----	12-4	KIMA DARK RED	230	1350	125	----	4,50
12511350	----	12-4	KIMA DARK RED	230	1500	135	----	4,50
12511550	----	12-4	KIMA DARK RED	230	1650	155	----	4,50
12511750	----	12-4	KIMA DARK RED	230	1900	175	----	4,50
12400020	----	12-7	KIMA DARK GREEN	230	15	2	----	5,50
12400030	----	12-7	KIMA DARK GREEN	230	22	3	----	5,50
12400040	----	12-7	KIMA DARK GREEN	230	30	4	----	5,50
12400060	----	12-7	KIMA DARK GREEN	230	45	6	----	5,50

Article number	EL number	Type	Product Name	Volt	Watt	Cable length m	Mat length m	Cable diam mm
12400080	----	12-7	KIMA DARK GREEN	230	60	8	----	5,50
12400100	----	12-7	KIMA DARK GREEN	230	75	10	----	5,50
12400150	----	12-7	KIMA DARK GREEN	230	110	15	----	5,50
12400200	----	12-7	KIMA DARK GREEN	230	150	20	----	5,50
12400250	----	12-7	KIMA DARK GREEN	230	190	25	----	5,50
12400300	----	12-7	KIMA DARK GREEN	230	225	30	----	5,50
12400350	----	12-7	KIMA DARK GREEN	230	260	35	----	5,50
12400400	----	12-7	KIMA DARK GREEN	230	300	40	----	5,50
12400450	----	12-7	KIMA DARK GREEN	230	340	45	----	5,50
12400500	----	12-7	KIMA DARK GREEN	230	375	50	----	5,50
12400550	----	12-7	KIMA DARK GREEN	230	410	55	----	5,50
12400600	----	12-7	KIMA DARK GREEN	230	450	60	----	5,50
12400650	----	12-7	KIMA DARK GREEN	230	490	65	----	5,50
12400700	----	12-7	KIMA DARK GREEN	230	525	70	----	5,50
12400750	----	12-7	KIMA DARK GREEN	230	560	75	----	5,50
12400800	----	12-7	KIMA DARK GREEN	230	600	80	----	5,50
12400850	----	12-7	KIMA DARK GREEN	230	640	85	----	5,50
12400900	----	12-7	KIMA DARK GREEN	230	675	90	----	5,50
12400950	----	12-7	KIMA DARK GREEN	230	710	95	----	5,50
12401000	----	12-7	KIMA DARK GREEN	230	750	100	----	5,50
12401050	----	12-7	KIMA DARK GREEN	230	790	105	----	5,50
12401100	----	12-7	KIMA DARK GREEN	230	825	110	----	5,50
12401150	----	12-7	KIMA DARK GREEN	230	860	115	----	5,50
12401200	----	12-7	KIMA DARK GREEN	230	900	120	----	5,50
12401250	----	12-7	KIMA DARK GREEN	230	940	125	----	5,50
12401350	----	12-7	KIMA DARK GREEN	230	1000	135	----	5,50
12401450	----	12-7	KIMA DARK GREEN	230	1100	145	----	5,50
12401550	----	12-7	KIMA DARK GREEN	230	1175	155	----	5,50
12401650	----	12-7	KIMA DARK GREEN	230	1250	165	----	5,50
12401850	----	12-7	KIMA DARK GREEN	230	1400	185	----	5,50
12402100	----	12-7	KIMA DARK GREEN	230	1575	210	----	5,50
12402300	----	12-7	KIMA DARK GREEN	230	1725	230	----	5,50
12402550	----	12-7	KIMA DARK GREEN	230	1900	255	----	5,50
12402750	----	12-7	KIMA DARK GREEN	230	2050	275	----	5,50
12402950	----	12-7	KIMA DARK GREEN	230	2200	295	----	5,50
12403200	----	12-7	KIMA DARK GREEN	230	2400	320	----	5,50
12300020	----	12-4	KIMA THERMO PLUG IN	230	20	2	----	5,50
12300040	----	12-4	KIMA THERMO PLUG IN	230	40	4	----	5,50
12300060	----	12-4	KIMA THERMO PLUG IN	230	60	6	----	5,50
12300080	----	12-4	KIMA THERMO PLUG IN	230	80	8	----	5,50
12300100	----	12-4	KIMA THERMO PLUG IN	230	100	10	----	5,50
12300160	----	12-4	KIMA THERMO PLUG IN	230	160	16	----	5,50
12300220	----	12-4	KIMA THERMO PLUG IN	230	220	22	----	5,50
12300250	----	12-4	KIMA THERMO PLUG IN	230	250	25	----	5,50
10731005	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	20	----	1	3,70
10731010	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	40	----	2	3,70
10731015	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	60	----	3	3,50
10731020	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	80	----	4	3,50
10731025	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	100	----	5	3,50
10731030	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	120	----	6	3,50
10731035	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	140	----	7	3,50
10731040	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	160	----	8	3,50
10731050	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	200	----	10	3,50
10731060	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	240	----	12	3,50
10731070	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	280	----	14	3,50
10731080	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	320	----	16	3,50
10731090	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	360	----	18	3,50
10731100	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	400	----	20	3,50
10731110	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	440	----	22	3,50
10731120	----	12-6	KIMA WFM 40 / ÖS VARMEMATTE-40	230	460	----	24	3,50
10733005	1036320	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	40	----	1	3,70
10733010	1036321	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	80	----	2	3,50
10733015	1036322	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	120	----	3	3,50
10733020	1036323	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	160	----	4	3,50
10733025	1036324	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	200	----	5	3,50

Article number	EL number	Type	Product Name	Volt	Watt	Cable length m	Mat length m	Cable diam mm
10733030	1036325	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	240	----	6	3,50
10733035	1036326	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	280	----	7	3,50
10733040	1036327	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	320	----	8	3,50
10733050	1036328	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	400	----	10	3,50
10733060	1036329	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	480	----	12	3,50
10733070	1036330	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	560	----	14	3,50
10733080	1036331	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	640	----	16	3,50
10733090	1036332	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	720	----	18	3,50
10733100	1036333	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	800	----	20	3,50
10733110	1036334	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	880	----	22	3,50
10733120	1036335	12-6	KIMA WFM 80 / ÖS VARMEMATTE-80	230	960	----	24	3,50
10735005	1036340	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	60	----	1	3,70
10735010	1036341	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	120	----	2	3,50
10735015	1036342	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	180	----	3	3,50
10735020	1036343	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	240	----	4	3,50
10735025	1036344	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	300	----	5	3,50
10735030	1036345	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	360	----	6	3,50
10735035	1036346	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	420	----	7	3,50
10735040	1036347	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	480	----	8	3,50
10735050	1036348	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	600	----	10	3,50
10735060	1036349	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	720	----	12	3,50
10735070	1036350	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	840	----	14	3,50
10735080	1036351	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	960	----	16	3,50
10735090	1036352	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	1080	----	18	3,50
10735100	1036353	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	1200	----	20	3,50
10735110	1036354	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	1320	----	22	3,50
10735120	1036355	12-6	KIMA WFM 120 / ÖS VARMEMATTE-120	230	1440	----	24	3,50
10511015	1014015	44-4	KIMA CURE / ÖS BETONGHERDING-40	230	130	3,3	----	5,20
10511016	1014016	44-4	KIMA CURE / ÖS BETONGHERDING-40	230	380	10	----	5,20
10511017	1014017	44-4	KIMA CURE / ÖS BETONGHERDING-40	230	735	20	----	5,20
10511018	1014018	44-4	KIMA CURE / ÖS BETONGHERDING-40	230	1400	35	----	5,20
10511013	1014019	44-4	KIMA CURE / ÖS BETONGHERDING-40	230	1400	35	----	5,20
10511019	1014020	44-4	KIMA CURE / ÖS BETONGHERDING-40	230	3500	85	----	5,20
10511014	1014021	44-4	KIMA CURE / ÖS BETONGHERDING-40	230	3500	85	----	5,20
10511031	1014025	44-4	KIMA FROST / ÖS FROSTSIKRING BETONG-16	230	2200	135	----	5,20
10511032	1014026	44-4	KIMA FROST / ÖS FROSTSIKRING BETONG-16	400	3800	235	----	5,20
11090090	1063051	42-4	KIMA ALU 18 / ÖS ALU-18	230	160	9	----	6,10
11090120	1063052	42-4	KIMA ALU 18 / ÖS ALU-18	230	220	12	----	6,10
11090170	1063053	42-4	KIMA ALU 18 / ÖS ALU-18	230	300	17	----	6,10
11090220	1063054	42-4	KIMA ALU 18 / ÖS ALU-18	230	400	22	----	6,10
11090280	1063055	42-4	KIMA ALU 18 / ÖS ALU-18	230	500	28	----	6,10
11090330	1063056	42-4	KIMA ALU 18 / ÖS ALU-18	230	600	33	----	6,10
11090390	1063057	42-4	KIMA ALU 18 / ÖS ALU-18	230	700	39	----	6,10
11090440	1063058	42-4	KIMA ALU 18 / ÖS ALU-18	230	800	44	----	6,10
11090500	1063059	42-4	KIMA ALU 18 / ÖS ALU-18	230	900	50	----	6,10
11090560	1063060	42-4	KIMA ALU 18 / ÖS ALU-18	230	1000	56	----	6,10
11090670	1063061	42-4	KIMA ALU 18 / ÖS ALU-18	230	1200	67	----	6,10
11090780	1063062	42-4	KIMA ALU 18 / ÖS ALU-18	230	1400	78	----	6,10
11090890	1063063	42-4	KIMA ALU 18 / ÖS ALU-18	230	1600	89	----	6,10
11091000	1063064	42-4	KIMA ALU 18 / ÖS ALU-18	230	1800	100	----	6,10
11091110	1063065	42-4	KIMA ALU 18 / ÖS ALU-18	230	2000	111	----	6,10
11091280	1063066	42-4	KIMA ALU 18 / ÖS ALU-18	230	2300	128	----	6,80
11091440	1063067	42-4	KIMA ALU 18 / ÖS ALU-18	230	2600	144	----	6,80
11091610	1063068	42-4	KIMA ALU 18 / ÖS ALU-18	230	2900	161	----	6,80
11091780	1063069	42-4	KIMA ALU 18 / ÖS ALU-18	230	3200	178	----	6,80

CONTENT DECLARATION

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Biogenic material, mass-% of product	Biogenic material, kg C/product or declared unit
FeCr alloys	6.0E-6	1.0E+0	0.0E+0	0.0E+0
CuNi alloys	2.7E-3	3.0E+1	0.0E+0	0.0E+0
Copper	9.3E-3	1.8E+1	0.0E+0	0.0E+0
Galvanized steel	7.1E-2	0.0E+0	0.0E+0	0.0E+0
Brass	1.0E-2	0.0E+0	0.0E+0	0.0E+0
Polyethylene	4.6E-3	0.0E+0	0.0E+0	0.0E+0
Polyethylene terephthalate	1.4E-6	0.0E+0	0.0E+0	0.0E+0
Polyvinylchloride	2.8E-2	0.0E+0	0.0E+0	0.0E+0
Glass fibre	1.4E-3	0.0E+0	0.0E+0	0.0E+0
Other polymers	7.1E-2	0.0E+0	0.0E+0	0.0E+0
TOTAL	4.5E-02	0.0E+0	0.0E+0	0.0E+0

Packaging materials	Mass, kg	Mass-% (versus the product)	Biogenic material, kg C/product or declared unit
Polyethylene	1.7E-5	0.0E+0	0.0E+0
Cardboard	6.9E-3	1.5E+0	3.1E-3
Pallet	5.4E-3	1.2E+1	2.5E-3
TOTAL	1.2E-2	2.7E+1	5.6E-3

The content declaration shows the contents per meter of a production-weighted average cable. The mass of the product per declared unit is 45.3 g. 1 kg of biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO₂.

No dangerous substances from the candidate list of SVHC for Authorization are used in the production or the final product.

LCA INFORMATION

Declared unit: 1 m of installed cable, including use phase, waste treatment and end of life.

Conversion factor to mass if mass is not used as functional/declared unit (not applicable for services): 45.3 g per meter.

Reference service life: Not applicable – modelling used a service life of 20-60 years depending on cable type.

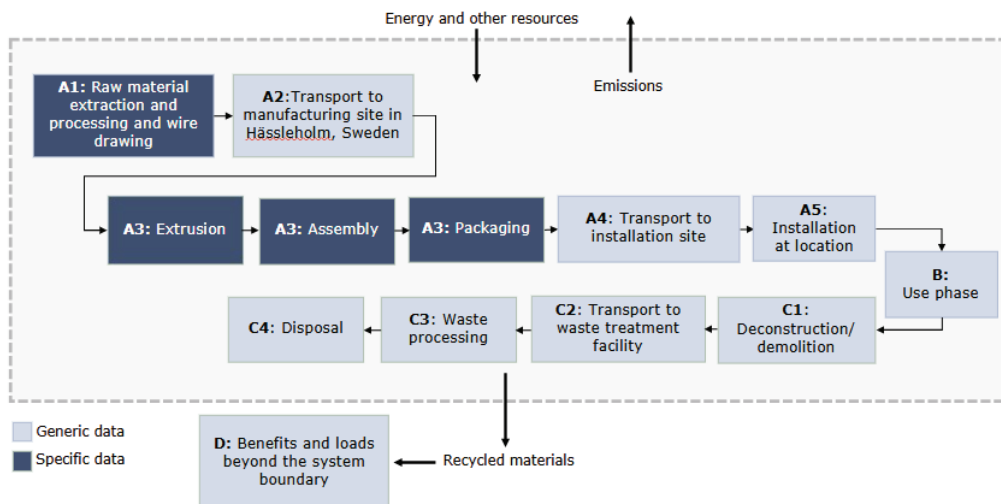
Time representativeness: 2023.

Geographical scope: Europe (modules A, C and D). Norway (Module B).

Database(s) and LCA software used: Ecoinvent 3.11. and Simapro 9.6 with EN 15804 + A2 (adapted-2023) as well as CED V1.00 and the EF 3.1 normalization and weighting set.

Description of system boundaries: Cradle to gate with options, module C1-C4, module D and optional modules A4, A5 & B1-B7.

Process flow diagram: The heating cables are produced in Hässleholm, Sweden. Raw materials and components are assumed to mainly be bought from European suppliers. The manufacturing consists of different process steps before the final product is delivered to customers



The following modules have been assessed:

A1) Raw material/energy demand from extraction

and processing of raw materials; Generation of electricity, steam and heat from primary energy resources, also including their extraction, refining and transport. The material inputs per meter of each cable were collected through the master production system and weighted by production volume to establish an average cable inventory. Materials were matched with data sets from Ecoinvent 3.11.

A2) Transport of raw materials

Transportation of raw materials to production sites. A representative distance of 1000 km by freight truck was used, together with the weight of cable materials with an additional 5% added to represent production waste. The process was modelled using an Ecoinvent 3.11 data set.

A3) Manufacturing

Manufacturing of the finished components (heating cables), production of packaging and treatment of production waste. The manufacturing takes place in Hässleholm in Sweden. First, the wires are twisted together to create a stronger and more flexible conductor. The wires are then covered with a layer of heat-resistant insulation through extrusion and, in some cases, an additional protective layer

through lamination to improve the cable's durability and performance. After the cables have been assembled to the correct length and function, they are covered with an outer sheath before being packed and shipped to the customer. Inputs and outputs (electricity, water, lubricants and waste) were allocated per meter from the site total. Materials were matched with data sets from Ecoinvent 3.11.

A4) Transport to installation

Transport of finished components to the installation site. A representative distance of 550 km by freight truck was used, together with the weight of cable and packaging per meter. The process was modelled using an Ecoinvent 3.11 data set. The additional technical information requested for this module under section 7.3 of SS-EN 15804 (SIS Svenska Institutet för Standarder, 2019) is not complete.

Scenario information	Unit	Input per FU
Vehicle type	N/A	16-32t Diesel lorry, EURO6
Distance	km	550
Capacity utilisation incl. empty returns	%	36-18
Bulk density of transported products	kg/m ³	Unknown
Volume capacity utilisation factor	N/A	Unknown

A5) Installation

Installation of the heating cable at the installation site. In order to represent installation waste, 5% of the A1-A3 inventory was added to this module. Apart from these, no use of energy, ancillary materials, water or other resources were modelled as part of this module.

Scenario information	Unit	Input per FU
Ancillary materials required	kg	0
Water use	m ³	0
Other resource use	kg	0
Energy type and consumption	kWh	0

B1) Use

Use of the installed product. The impact of module B1 was assessed to be zero as the product does not release any substance during operation. .

B2) Maintenance

Maintenance of the heating cable at the installation site. The impact of module B2 was assessed to be zero as the product does not require maintenance under normal conditions.

B3) Repair

Repairs of the heating cable at the installation site. The impact of module B3 was assessed to be zero as the product does not require repairs under normal conditions.

B4) Replacement

Replacement of the heating cable at the installation site. The impact of module B4 was assessed to be zero as the product does not require replacement under normal conditions.

B5) Refurbishment

Refurbishment of the heating cable. The impact of module B5 was assessed to be zero as the product does not require refurbishment under normal conditions.

B6) Operational energy use

Electricity used by the heating cable during operation. The lifetime energy consumption was calculated per cable depending on its application (see Scenarios section); these were weighted by production volume in order to determine the consumption of the average cable. The additional technical information requested for this module under section 7.3 of SS-EN 15804 (SIS Svenska Institutet för Standarder, 2019) is not complete.

Scenario information	Unit	Input per FU
Ancillary materials	kg	0
Net fresh water consumption	m ³	0
Lifetime electricity consumption	kWh	118.3
Power output	kW	N/A*
Efficiency	%	100
Annual running time	h	N/A*
Lifetime	y	N/A*

* These attributes vary between specific cables

B7) Operational water use

Water used by the heating cable during operation. The impact of module B7 was assessed to be zero as the product does not use water.

C1) Deconstruction and demolition

Impacts relating to removing the product at end-of-life. The impact of module C1 was assessed to be zero as the product is easily removed by hand.

C2) Waste transport

Transport of waste products to a waste treatment facility. A representative distance of 100 km by freight truck was used. The process was modelled using an Ecoinvent 3.11 data set.

C3) Waste processing

Sorting and recycling processes. It was assumed that cables would be sorted at a designated sorting station, where the metal wiring would be sent to recycling (sorting and remelting) and the rest incinerated. Materials were matched with data sets from Ecoinvent 3.11.

C4) Waste disposal

Waste disposal processes such as landfilling or incineration. Disposal of ashes from incinerated materials was modelled using an Ecoinvent 3.11 data set.

The additional technical information requested for the end of life stage under section 7.3 of SS-EN 15804 (SIS Svenska Institutet för Standarder, 2019) is not complete.

Scenario information	Unit	Input per FU
Waste collected separately	g	45.3
Waste collected with MCW	g	0
Waste for reuse	g	0
Waste for recycling	g	13.7
Waste for energy recovery	g	31.6
Waste for final deposition	g	1.6
Transportation vehicle	N/A	16-32t Diesel lorry, EURO6
Distance	km	100
Capacity utilisation incl. empty returns	%	36-18
Bulk density of transported products	kg/m ³	Unknown
Volume capacity utilisation factor	N/A	Unknown

D) Potential benefits and loads beyond the system boundary

Benefits and burdens associated with recovery/recycling that affect previous or future life cycles. Benefits outside the system boundary come from the recycling of metals (D1) and incineration of scrap polymers (D3). For D1, it was assumed that 90% of Ferrochrome steel, nickel and copper would be recycled with no significant degradation. The calculation of D3 used the LHV as well as net electrical and thermal energy production reported by Ecoinvent 3.11 for incineration of waste plastic.

Allocation

Manufacturing inputs and outputs (electricity, water, lubricants and waste) were allocated per meter from the site total. The "cut off" principle has been used to allocate recycled materials.

Cut-off criteria

The study followed the cut-off criteria described in EN 15804 (SIS Svenska Institutet för Standarder, 2019) and PCR 2019:14 (The International EPD System, 2025). All inputs and outputs have been included in the calculations.

Key assumptions:

- Manufacturing of capital equipment and infrastructure as well as personnel-related processes were excluded for upstream, core and downstream processes.
- For the production of electricity used in the core process (A3), a 100% nuclear mix was used as the company purchases this specific electricity mix.
- Use phase modules excluding B6 were estimated to cause no impact. The energy used by the cable in the use phase (B6) was estimated based on assumptions relating to weather conditions: see scenario description below.

The assumptions related to Modules C and D, end-of-life treatment scenarios and credits, represent the most likely scenario based on current practices and technologies available. It was assumed that the metals would be recycled and plastics incinerated as mixed waste.

Use phase scenarios:

A most-likely scenario was developed for each cable application, as described below. After weighting by production volume, the total energy use of the average cable was 118.3 kWh/m. The electricity was represented using the following dataset:

[Electricity, medium voltage {NO} | market for electricity, medium voltage | Cut-off, S].

For underfloor heating cables, the energy use was calculated by dividing the maximum annual energy use of a Norwegian passive house, 15 kWh/m²y (Standard Norge, 2013), by the length of installed cable per m². A typical c/c distance of 13 cm was assumed for the installed cable, giving 7.7 m of cable per m². The service life was expected to be 60 years.

The frost protection cables are regulated by thermostats and are only active when the temperature close to or below zero at the water pipe. Assuming that the pipes are insulated this means that the cables will start consuming electricity when the air temperature drops below -3 degrees C. Based on average weather data for the last 4 years in Norway this occurs for 914 hours per year. The power used for frost protection at that temperature is assumed to be 2W/m. The annual energy use of these cables comes to 1.8 kWh/m.

For concrete protection cables, which are embedded into concrete structures to prevent cold temperatures from hindering the hardening process (typically 3-7 days), the energy use was calculated using the cables' respective maximum power for one week.

Summary of data quality assessment:

The LCA underlying this EPD is based primarily on secondary data for background processes, combined with primary activity data from the 2023 production year for core processes. The overall data quality was considered good.

Representativeness

- Technological: Good to very good as secondary data sets reflect typical technologies
- Geographical: Fair to good as most data sets correspond to the relevant regional context
- Temporal: Good, representing the combination of recent activity data and Ecoinvent 3.11

Completeness

- Very good as the inventory covers all relevant flows and impact categories

Precision / Uncertainty

- Fair to good, representing the weighted of the average product and secondary data

Consistency

- Good as the attributional LCA approach, allocation and cut-offs were applied consistently across all data sets

Modules declared, geographical scope, share of primary data (in GWP-GHG results) and data variation (in GWP-GHG results):

Module	Product stage			Distribution/ installation stage		Use stage							End-of-life stage				Beyond product life cycle	
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential	
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
Modules declared	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	GLO/ EUR	EUR	SE	SE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	EUR	
Share of primary data	17%					-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	111%					-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%					-	-	-	-	-	-	-	-	-	-	-	-	-

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3
Production of materials	Database	Ecoinvent v3.11	2023	Secondary data	0%
Transportation of materials	Database	Ecoinvent v3.11	2023	Secondary data	0%
Manufacturing of product	Collected	KIMA	2023	Primary data	17.3%
Total share of primary data, of GWP-GHG results for A1-A3					17.3%

Module A3 was modelled using a site specific life cycle inventory of inputs and outputs calculated by the production system. The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.

Data quality assessment

The quality of the generic data used has been assessed according to the UN Environment Global Guidance on LCA database development's criteria for data quality assessment, as described in Table E.1 in SS-EN 15804:2012+A2:2019 (SIS Svenska Institutet för Standarder, 2019). In general, the data quality is considered good in this assessment. The evaluation categories used to assess data quality range from very good to very poor, with no data falling into the "very poor" category in this assessment.

Variation

For an EPD of multiple products that does not claim compliance with ISO 21930, variations above 10% are allowed. In such cases, the EPD shall declare the variation of each impact indicator results for which the variation is above 10% and include an explanation of the variation. In this case, the variation is above 10% for several indicators due to variations in packaging amounts relative to the functional unit.

Indicator	Variation
Climate change - Fossil	172%
Climate change - Biogenic	68%
Climate change - Land use and LU change	183%
Climate change	175%
Ozone depletion	198%
Acidification	154%
Eutrophication, freshwater	150%
Eutrophication, marine	163%
Eutrophication, terrestrial	162%
Photochemical ozone formation	164%
Resource use, minerals and metals	149%
Resource use, fossils	160%
Water use	181%
Particulate matter	173%
Ionising radiation	161%
Ecotoxicity, freshwater	164%
Human toxicity, cancer	193%
Human toxicity, non-cancer	151%
Land use	133%
GWP-GHG	171%

The variation was calculated following the method described by the GPI 5.0.1. The figures relate to the variation between the declared product and the lowest- and highest-impact variant per indicator.

ENVIRONMENTAL PERFORMANCE

LCA results of the product(s) - main environmental performance results

Mandatory impact category indicators according to EN 15804

Results per functional or declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq.	2.69E-01	6.03E-03	1.93E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.48E+00	0.00E+00	0.00E+00	8.46E-04	7.95E-02	5.36E-04	-4.74E-02
GWP-biogenic	kg CO ₂ eq.	-1.43E-02	4.19E-06	2.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.12E-01	0.00E+00	0.00E+00	5.88E-07	5.48E-04	8.35E-06	2.81E-05
GWP-luluc	kg CO ₂ eq.	3.71E-04	2.03E-06	1.87E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.85E-02	0.00E+00	0.00E+00	2.85E-07	2.67E-06	1.28E-07	-1.37E-04
GWP-total	kg CO ₂ eq.	2.55E-01	6.04E-03	4.09E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.61E+00	0.00E+00	0.00E+00	8.46E-04	8.01E-02	5.44E-04	4.75E-02
ODP	kg CFC 11 eq.	2.41E-08	3.00E-12	1.21E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.56E-08	0.00E+00	0.00E+00	4.21E-13	5.26E-12	7.25E-14	9.19E-11
AP	mol H ⁺ eq.	7.37E-03	1.29E-05	3.76E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.16E-02	0.00E+00	0.00E+00	1.82E-06	2.64E-05	1.35E-06	4.89E-03
EP-freshwater	kg P eq.	5.74E-04	4.19E-07	2.95E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.89E-03	0.00E+00	0.00E+00	5.87E-08	5.98E-07	1.38E-06	2.46E-04
EP-marine	kg N eq.	4.70E-04	3.12E-06	3.05E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.09E-03	0.00E+00	0.00E+00	4.37E-07	1.26E-05	4.14E-07	1.67E-04
EP-terrestrial	mol N eq.	6.09E-03	3.37E-05	3.38E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.79E-02	0.00E+00	0.00E+00	4.72E-06	1.09E-04	4.49E-06	2.21E-03
POCP	kg NMVOC eq.	2.03E-03	2.05E-05	1.10E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.39E-02	0.00E+00	0.00E+00	2.88E-06	2.91E-05	1.34E-06	7.94E-04
ADP-minerals&metals*	kg Sb eq.	8.26E-05	2.07E-08	4.13E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.55E-04	0.00E+00	0.00E+00	2.90E-09	1.06E-08	6.30E-10	3.51E-05
ADP-fossil*	MJ	2.86E+00	6.84E-03	1.44E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.52E+01	0.00E+00	0.00E+00	9.58E-04	8.67E-03	1.02E-03	3.28E-01
WDP*	m ³	2.96E-01	3.37E-04	1.54E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.96E+00	0.00E+00	0.00E+00	4.72E-05	5.32E-04	6.84E-05	1.46E-01
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption															

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

Additional mandatory and voluntary impact category indicators

Results per functional or declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG ¹	kg CO ₂ eq.	2.70E-01	6.04E-03	1.94E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.54E+00	0.00E+00	0.00E+00	8.46E-04	7.99E-02	5.36E-04	-4.76E-02
Particulate matter emissions (PM)	Disease incidence	5.19E-08	4.52E-10	2.66E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.31E-07	0.00E+00	0.00E+00	6.34E-11	3.71E-10	1.19E-11	-9.11E-09
Ionizing radiation, human health (IRP)**	kBq U235 eq.	1.14E-01	1.04E-04	5.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.63E+00	0.00E+00	0.00E+00	1.45E-05	9.18E-05	1.71E-05	-9.25E-03
Eco-toxicity - freshwater (ETP-fw)*	CTUe	8.00E+00	1.15E-02	4.18E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.74E+01	0.00E+00	0.00E+00	1.61E-03	1.66E-01	1.85E-02	-3.60E+00
Human toxicity, cancer effect (HTP-c)*	CTUh	1.33E-09	1.01E-12	6.86E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.94E-09	0.00E+00	0.00E+00	1.41E-13	8.38E-12	2.63E-11	-2.91E-10
Human toxicity, non-cancer effects (HTP-nc)*	CTUh	6.72E-08	5.38E-11	3.43E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-07	0.00E+00	0.00E+00	7.54E-12	4.69E-10	8.55E-11	-2.44E-08
Land use related impacts/S oil quality (SQP)*	dimensionless	4.38E+00	5.15E-02	2.24E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.73E+01	0.00E+00	0.00E+00	7.21E-03	2.54E-02	3.19E-03	-9.38E-01

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks. The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).

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

** Disclaimer: This impact category deals mainly with the eventual impact of low-dose ionising radiation on human health from the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionising radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Resource use indicators

Results per functional or declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	9,32E-01	1,41E-03	4,68E-02	4,87E+02	0,00E+00	1,98E-04	1,89E-03	1,66E-04	0,00E+00	9,32E-01	1,41E-03	4,68E-02	4,87E+02	0,00E+00	1,98E-04
PERM	MJ	1,04E-01	0,00E+00	3,11E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,04E-01	0,00E+00	3,11E-02	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	1,04E+00	1,41E-03	1,57E-02	4,87E+02	0,00E+00	1,98E-04	1,89E-03	1,66E-04	0,00E+00	1,04E+00	1,41E-03	1,57E-02	4,87E+02	0,00E+00	1,98E-04

¹ This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.

PENRE	MJ	2,92E+00	7,14E-03	1,47E-01	3,61E+01	0,00E+00	1,00E-03	9,08E-03	1,06E-03	0,00E+00	2,92E+00	7,14E-03	1,47E-01	3,61E+01	0,00E+00	1,00E-03
PENRM	MJ	1,01E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-3,81E-01	0,00E+00	0,00E+00	1,01E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	3,93E+00	7,14E-03	1,47E-01	3,61E+01	0,00E+00	1,00E-03	-3,72E-01	1,06E-03	0,00E+00	3,93E+00	7,14E-03	1,47E-01	3,61E+01	0,00E+00	1,00E-03
SM	kg	2,08E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,08E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	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	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	4,11E-03	1,28E-05	2,28E-04	3,09E-02	0,00E+00	1,79E-06	1,34E-04	3,64E-06	0,00E+00	4,11E-03	1,28E-05	2,28E-04	3,09E-02	0,00E+00	1,79E-06

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

Option B was used to show energy use. However, a specific energy profile for waste incineration could not be established, as the product is marketed to consumers; instead, secondary (Ecoinvent 3.11) values for net energy production were used.

Waste indicators

Results per functional or declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0.00E+00	0.00E+00	1.20E-05	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	0.00E+00	0.00E+00	0.00E+00
Non-hazardous waste disposed	kg	4.25E-04	0.00E+00	4.25E-04	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	0.00E+00	1.64E-03	0.00E+00
Radioactive waste disposed	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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Output flow indicators

Results per functional or declared unit																
Indicator	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	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	0.00E+00	0.00E+00	0.00E+00	1.08E-02	0.00E+00	0.00E+00
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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Exported energy, electricity	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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.23E-01	0.00E+00	0.00E+00
Exported energy, thermal	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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.77E-01	0.00E+00	0.00E+00

ADDITIONAL ENVIRONMENTAL INFORMATION

During the work with the EPD, no factors have been identified that would prevent meeting the requirements of BASTA, Sunda Hus, and the Byggsvarubedömningen. For example, no dangerous substances from the candidate list of SVHC for Authorisation are used in the production or the final product. However, to achieve certification according to these assessments, further review and safety data sheets are required.

The calculations for climate data in this EPD are aligned with BREEAM. Regarding the product's lifespan, it is recommended to follow the specifications in the BREEAM manual. The product is not expected to be subject to emissions assessments. No occurrence of phase-out substances has been found during the implementation of the EPD, but further review is required if the product is to be used under a BREEAM certificate.

Svanen has currently no criteria for this product group.

Validity

In accordance with section 2.2.4 of the PCR, KIMA Cable AB commits to maintaining EPD validity through continuous monitoring of relevant changes, including e.g. product composition, manufacturing processes, supply chains and end-of-life regulations.

Kima Cable AB commits to purchase contractual instruments representing the renewable electricity mix used to develop this EPD for the validity period of the EPD.

ABBREVIATIONS

Abbreviation	Definition
General Abbreviations	
EN	European Norm (Standard)
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
CEN	European Committee for Standardization
CLC	Co-location centre
CPC	Central product classification
GHS	Globally harmonized system of classification and labelling of chemicals
GRI	Global Reporting Initiative
SVHC	Substances of Very High Concern
ND	Not Declared

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VERSION HISTORY

Original Version of the EPD, 2026-04-29

