

ENVIRONMENTAL PRODUCT DECLARATION

In accordance with ISO 14025 and EN 15804:2012+A2:2019 for:

Aluminium Alloy Conductor Steel Reinforced (AACSR) SVEID &

Aluminium Conductor Steel Reinforced (ACSR) PARROT SP

from

Lumpi-Berndorf Draht- und Seilwerk GmbH



Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	S-P-03244
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An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at 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
E-mail:	info@environdec.com

CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product category rules (PCR): PCR 2019:14 Construction products, version 1.1
PCR review was conducted by: The Technical Committee of the International EPD® System. See www.environdec.com/TC for a list of members. Review chair: Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact .
Independent third-party verification of the declaration and data, according to ISO 14025:2006: <input type="checkbox"/> EPD process certification <input checked="" type="checkbox"/> EPD verification
Third party verifier: Dr Andreas Ciroth, GreenDelta GmbH Approved by: The 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
Commissioner of the Life Cycle Assessment: brands & values GmbH, www.brandsandvalues.com , info@brandsandvalues.com

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

EPDs within the same product category but from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804. For further information about comparability, see EN 15804 and ISO 14025.



Company information

Owner of the EPD: LUMPI-BERNDORF Draht- und Seilwerk GmbH

Contact: Norbert Hadinger (Managing Director)

Description of the organisation: Industrial company
LUMPI-BERNDORF is a global company specialising in the manufacture of wires and overhead conductors for electrical energy and data transmission.

Product-related or management system-related certifications:
ISO 9001- and 14001-certificates

Name and location of production site(s):
LUMPI-BERNDORF Draht- und Seilwerk GmbH
Plant Linz: Binderlandweg 7, 4030 Linz, Austria
Plant Berndorf: Leobersdorfer Straße 26, 2560 Berndorf, Austria
Phone: +43 732 38 38 480
E-Mail: office@lumpi-berndorf.com
Website: lumpi-berndorf.com



Product information

Product name:
AACSR SVEID
ACSR PARROT SP

Product identification:
AACSR SVEID 127-AL3/134-ST5E
ACSR PARROT SP 766-AL1/97-ST5E

(Standards:
Rope Standard - EN 50182/2001
ST5E wires - EN 50189/2000
AL3 wires - EN 50183/2000
AL1 wires - EN 60889/1997)

Product description:
Conductors for overhead lines (round wire concentric lay stranded conductors)
Purpose: Power transmission
Expected service life time: 30-50 years

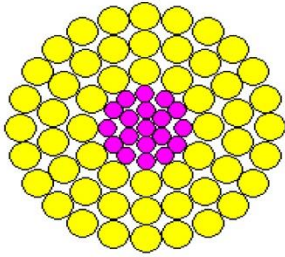


Datasheet

766-AL1/97-ST5E

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ACSR PARROT SP



Structure:

1	x	2,55 mm	ST5E
6	x	2,55 mm	ST5E
12	x	2,55 mm	ST5E
12	x	4,25 mm	Aluminium (AL1)
18	x	4,25 mm	Aluminium (AL1)
24	x	4,25 mm	Aluminium (AL1)

Standards:

Rope Standard	EN 50182/2001
ST5E wires	EN 50189/2000
AL1 wires	EN 60889/1997

Pitch ratio:	Layer 1:	20,9 - 22,9	right hand lay
	Layer 2:	17,7 - 18,8	left hand lay
	Layer 3:	11,8 - 13,2	right hand lay
	Layer 4:	10,4 - 11,4	left hand lay
	Layer 5:	9,8 - 10,6	right hand lay

	Nominal Value	Unit
Overall Diameter	38,25	mm
Cross Sectional Area Carrying Material	97,03	mm ²
Cross Sectional Area Conductive Material	766,06	mm ²
Total Cross Sectional Area	863,09	mm ²
Carrying Material - Weight	761	kg/km
Conductive Material - Weight	2134	kg/km
Grease - Weight	0,0	kg/km
Total - Weight	2895,0	kg/km
Total - Weight including Grease	2895,0	kg/km
Modulus of Elasticity	6800	daN/mm ²
Coeff. Of Linear Expansion	1,940	10 ⁻⁶ /°C
Calculated Breaking Load	25551	daN
DC - Resistance at 20°C	0,0380	Ω/km
Current carrying capacity with wind *	1306	A
Short Current (1s / 20°C - 160°C)	84,18	kA
Short Current Capacity I ² t (20°C - 160°C)	7085,99	kA ² s
Minimum Bending Radius (static and dynamic)	573,75	mm
Temperature Range	Stringing	-10 up to +50°C
	Storage and Operation	-30 up to +80°C

*) The Calculation is based on following data:

Ambient temperature	35	°C
Conductor temperature	80	°C
Solar radiation	895	W/m ²
Emissivity	0,55	
Wind velocity	0,6	m/s
Altitude	300	m
Latitude	49	°
geographic angle of overhead line route	135	°

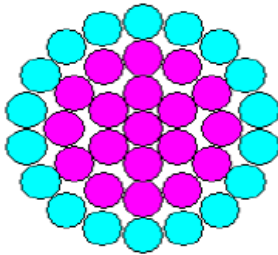


Datasheet

127-AL3/134-ST5E

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AACSR Sveid



Structure:

- 1 x 3.00 mm ST5E
- 6 x 3.00 mm ST5E
- 12 x 3.00 mm ST5E
- 18 x 3.00 mm Al-Alloy (AL3)

Standards:

- Rope Standard** EN 50182/2001
- ST5E wires** EN 50189/2000
- AL3 wires** EN 50183/2000

Pitch ratio: Layer 1: 20.6 - 22.8 right hand lay
 Layer 2: 17.3 - 18.7 left hand lay
 Layer 3: 10.5 - 11.4 right hand lay

	Nominal Value	Unit
Overall Diameter	21.00	mm
Cross Sectional Area Carrying Material	134.30	mm ²
Cross Sectional Area Conductive Material	127.23	mm ²
Total Cross Sectional Area	261.54	mm ²
Carrying Material - Weight	1053	kg/km
Conductive Material - Weight	354	kg/km
Grease - Weight	0.0	kg/km
Total - Weight	1406.6	kg/km
Total - Weight including Grease	1406.6	kg/km
Modulus of Elasticity	11905	daN/mm ²
Coeff. Of Linear Expansion	1.394	10 ⁻⁵ /°C
Calculated Breaking Load	22153	daN
DC - Resistance at 20°C	0.2226	Ω/km
Current carrying capacity with wind *	466	A
Short Current (1s / 20°C - 160°C)	21.40	kA
Short Current Capacity I ² t (20°C - 160°C)	457.77	kA ² s
Minimum Bending Radius (static and dynamic)	315	mm
Temperature Range	Stringing	-10 up to +50°C
	Storage and Operation	-30 up to +80°C

*) The Calculation is based on following data:

Ambient temperature	35 °C
Conductor temperature	80 °C
Solar radiation	895 W/m ²
Emissivity	0.55
Wind velocity	0.6 m/s
Altitude	300 m
Latitude	49 °
geographic angle of overhead line route	135 °

UN CPC code: Not applicable

LCA information

Functional unit / declared unit: 1000 m conductor

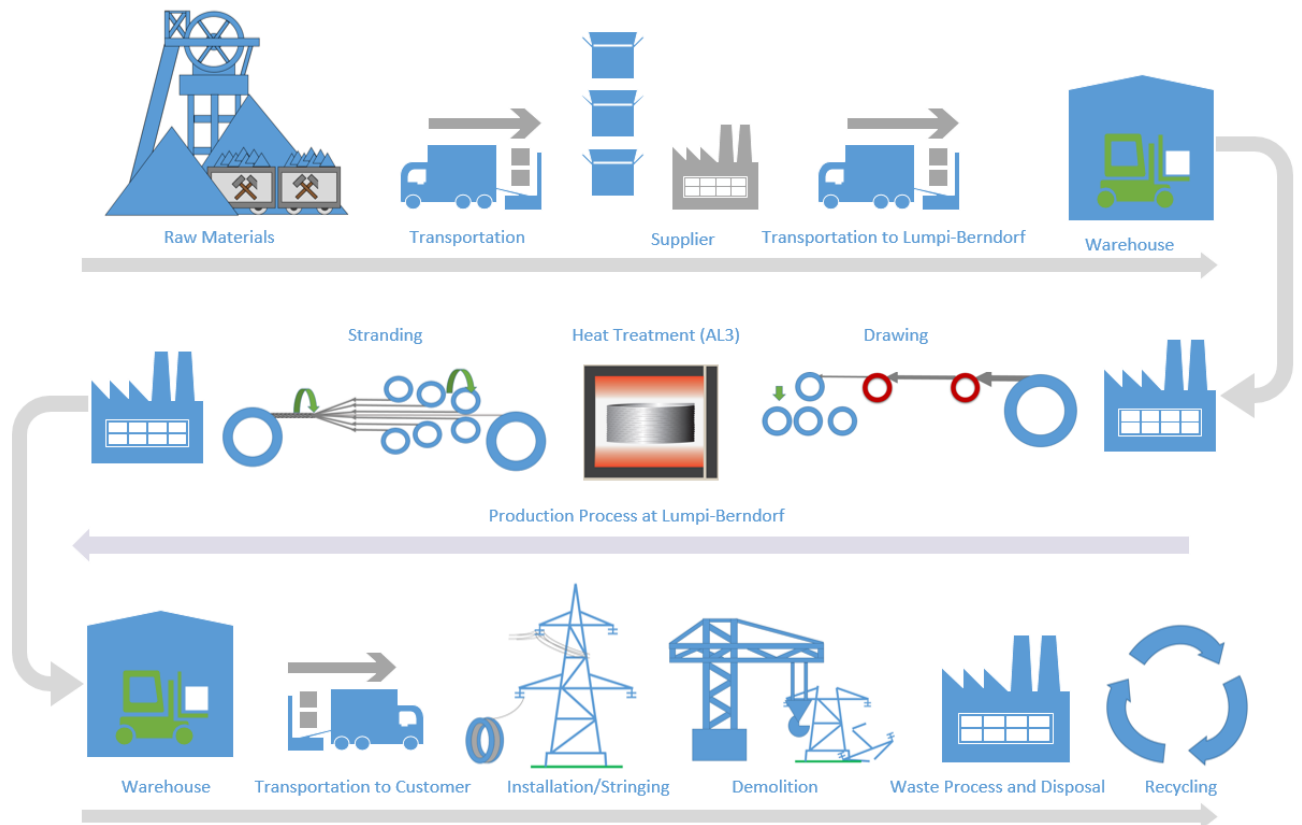
Reference service life: 30-50 years

Time representativeness: 2019

Database(s) and LCA software used: GaBi 10.0

Description of system boundaries: Cradle to gate with options, Modules C1–C4, Module D and with optional Modules A4–A5

System diagram:



LCA scenarios and technical information

Transport to construction site (Module A4):

For the transportation to the construction site (Module A4), transports to Bergen, Norway by ship and truck were modelled.

Installation/Stringing (Module A5):

Energy for installation and the treatment of packaging waste were considered in Module A5. 27 minutes installation time with a 65 kW engine were assumed for installation.

De-construction (Module C1):

Module C1 includes the energy required for de-construction of conductors. 7 minutes with a 63 kW engine were assumed for de-construction.

Transports to waste processing (Module C2):

Module C2 includes the transports to the waste processing. The distance was assumed to be 100 km.

Waste processing and disposal (Module C3 and C4):

The separation of the aluminum and steel wires for recycling was modelled in Module C3. The recycling rate was assumed to be 100%. Hence, no materials were disposed in Module C4.

Resource recovery stage (Module D):

Module D contains credits from the recycling of the aluminum and steel.

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

	Product stage		Construction process stage			Use stage							End of life stage				Resource recovery stage	
	Raw material supply	Transport	Manufacturing	Transport	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	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X	
Geography	AT, IT, SK, NO, DE, EU	EU	AT	NO	EU	-	-	-	-	-	-	-	EU	EU	NO	-	EU, GLO	
Specific data	0%					-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	Products listed separately					-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	Not applicable					-	-	-	-	-	-	-	-	-	-	-	-	-

Content information for ACSR SVEID

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
AL3-Wires (aluminium)	354	0	0
ST5E Wire Core (steel)	1,053	0	0
TOTAL	1,407	0	0
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood	44.5	3.16%	
Steel	262	18.6%	
TOTAL	306.5	21.6%	

The product does not contain any substances listed in the “Candidate List of Substances of Very High Concern (SVHC) for authorisation” exceeding 0.1% of the weight of the product.

Content information for ACSR PARROT SP

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
AL1-Wires (aluminium)	2,134	0	0
ST5E Wire Core (steel)	761	0	0
TOTAL	2,895	0	0
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood	44.5	2.1%	
Steel	262	12.3%	
TOTAL	306.5	14.4%	

The product does not contain any substances listed in the “Candidate List of Substances of Very High Concern (SVHC) for authorisation” exceeding 0.1% of the weight of the product.

Environmental Information

Potential environmental impact – mandatory indicators according to EN 15804 for ACSR SVEID

Results per functional or declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq.	6.00E+03	1.81E+02	4.61E+01	5.02E+00	1.25E+01	6.80E-01	0.00E+00	-4.20E+03
GWP-biogenic	kg CO ₂ eq.	-7.28E+01	0.00E+00	7.28E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWP-luluc	kg CO ₂ eq.	2.06E+00	1.38E+00	3.51E-01	4.09E-02	1.01E-01	3.66E-04	0.00E+00	-5.06E-01
GWP-total	kg CO ₂ eq.	5.93E+03	1.83E+02	1.19E+02	5.06E+00	1.26E+01	6.81E-01	0.00E+00	-4.20E+03
ODP	kg CFC 11 eq.	6.77E-07	3.23E-14	1.80E-14	9.27E-16	2.30E-15	4.87E-15	0.00E+00	-4.78E-12
AP	mol H ⁺ eq.	1.93E+01	5.94E-01	1.40E-01	8.26E-03	4.26E-02	4.89E-04	0.00E+00	-1.63E+01
EP-freshwater	kg PO ₄ ³⁻ eq.	1.37E-02	5.22E-04	1.34E-04	1.54E-05	3.82E-05	1.04E-06	0.00E+00	-1.24E-03
EP-marine	kg N eq.	3.61E+00	1.67E-01	4.29E-02	3.05E-03	1.92E-02	1.56E-04	0.00E+00	-2.12E+00
EP-terrestrial	mol N eq.	3.89E+01	1.89E+00	4.98E-01	3.52E-02	2.15E-01	1.65E-03	0.00E+00	-2.25E+01
POCP	kg NMVOC eq.	1.15E+01	4.58E-01	1.13E-01	7.24E-03	3.85E-02	4.07E-04	0.00E+00	-7.34E+00
ADP-minerals&metals*	kg Sb eq.	2.19E-01	1.41E-05	3.70E-06	4.09E-07	1.01E-06	8.87E-07	0.00E+00	1.31E-03
ADP-fossil*	MJ	7.08E+04	2.41E+03	6.16E+02	6.74E+01	1.67E+02	6.97E+00	0.00E+00	-4.56E+04
WDP	m ³	8.49E+02	1.68E+00	8.77E+00	4.93E-02	1.22E-01	1.35E-01	0.00E+00	-7.20E+02
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 of these results are high or as there is limited experience with the indicator.

Potential environmental impact – mandatory indicators according to EN 15804 for ACSR PARROT SP

Results per functional or declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq.	2.01E+04	3.83E+02	4.61E+01	5.03E+00	2.58E+01	6.80E-01	0.00E+00	-1.57E+04
GWP-biogenic	kg CO ₂ eq.	-7.28E+01	0.00E+00	7.28E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWP-luluc	kg CO ₂ eq.	9.24E+00	2.93E+00	3.51E-01	4.10E-02	2.09E-01	3.66E-04	0.00E+00	-4.33E+00
GWP-total	kg CO ₂ eq.	2.00E+04	3.86E+02	1.19E+02	5.07E+00	2.60E+01	6.81E-01	0.00E+00	-1.57E+04
ODP	kg CFC 11 eq.	5.75E-07	6.84E-14	1.80E-14	9.29E-16	4.73E-15	4.87E-15	0.00E+00	-1.16E-11
AP	mol H ⁺ eq.	9.74E+01	1.19E+00	1.40E-01	8.28E-03	8.77E-02	4.89E-04	0.00E+00	-8.10E+01
EP-freshwater	kg PO ₄ ³⁻ eq.	1.83E-02	1.11E-03	1.34E-04	1.54E-05	7.85E-05	1.04E-06	0.00E+00	-5.36E-03
EP-marine	kg N eq.	1.36E+01	3.36E-01	4.29E-02	3.06E-03	3.96E-02	1.56E-04	0.00E+00	-1.02E+01
EP-terrestrial	mol N eq.	1.48E+02	3.80E+00	4.98E-01	3.53E-02	4.42E-01	1.65E-03	0.00E+00	-1.10E+02
POCP	kg NMVOC eq.	4.17E+01	9.20E-01	1.13E-01	7.25E-03	7.92E-02	4.07E-04	0.00E+00	-3.11E+01
ADP-minerals&metals*	kg Sb eq.	1.85E-01	2.98E-05	3.70E-06	4.09E-07	2.08E-06	8.87E-07	0.00E+00	2.85E-02
ADP-fossil*	MJ	2.49E+05	5.08E+03	6.16E+02	6.75E+01	3.44E+02	6.97E+00	0.00E+00	-1.90E+05
WDP	m ³	3.15E+03	3.57E+00	8.77E+00	4.94E-02	2.51E-01	1.35E-01	0.00E+00	-2.47E+03
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 of these results are high or as there is limited experience with the indicator.

Potential environmental impact – additional mandatory and voluntary indicators for ACSR SVEID

Results per functional or declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-GHG ¹	kg CO ₂ eq.	6.00E+03	1.82E+02	4.65E+01	5.06E+00	1.26E+01	6.80E-01	0.00E+00	-4.20E+03
Potential incidence of disease due to PM emissions (PM)	Incidence of disease	2.20E-04	8.00E-06	1.59E-06	5.01E-08	2.44E-07	5.19E-09	0.00E+00	-1.90E-04
Potential Human exposure efficiency relative to U235 (IR)	kBq U235-eq.	8.15E+02	6.42E-01	3.18E-01	1.84E-02	4.56E-02	1.03E-01	0.00E+00	-3.77E+02
Eco-toxicity, freshwater (ETP-fw)	CTUe	2.07E+04	1.79E+03	4.55E+02	5.04E+01	1.25E+02	1.73E+00	0.00E+00	-1.16E+04
Human toxicity, cancer effects (HTP-c)	CTUh	1.38E-06	3.69E-08	9.72E-09	1.04E-09	2.59E-09	2.37E-09	0.00E+00	-9.40E-07
Human toxicity, non-cancer effects (HTP-nc)	CTUh	6.55E-05	1.86E-06	4.83E-07	5.28E-08	1.40E-07	3.75E-09	0.00E+00	-5.27E-05
Potential soil quality index (SQP)	dimension-less	1.74E+04	8.00E+02	2.07E+02	2.37E+01	5.87E+01	2.97E+00	0.00E+00	1.32E+04

¹ The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Potential environmental impact – additional mandatory and voluntary indicators for ACSR PARROT SP

Results per functional or declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-GHG ²	kg CO ₂ eq.	2.01E+04	3.86E+02	4.65E+01	5.07E+00	2.60E+01	6.80E-01	0.00E+00	-1.57E+04
Potential incidence of disease due to PM emissions (PM)	Incidence of disease	1.03E-03	1.58E-05	1.59E-06	5.02E-08	5.02E-07	5.19E-09	0.00E+00	-8.56E-04
Potential Human exposure efficiency relative to U235 (IR)	kBq U235-eq.	2.78E+03	1.36E+00	3.18E-01	1.84E-02	9.39E-02	1.03E-01	0.00E+00	-2.49E+03
Eco-toxicity, freshwater (ETP-fw)	CTUe	8.51E+04	3.79E+03	4.55E+02	5.05E+01	2.57E+02	1.73E+00	0.00E+00	-6.97E+04
Human toxicity, cancer effects (HTP-c)	CTUh	1.04E-05	7.81E-08	9.72E-09	1.04E-09	5.32E-09	2.37E-09	0.00E+00	-8.85E-06
Human toxicity, non-cancer effects (HTP-nc)	CTUh	2.38E-04	3.94E-06	4.83E-07	5.29E-08	2.89E-07	3.75E-09	0.00E+00	-1.88E-04
Potential soil quality index (SQP)	dimensionless	2.33E+04	1.70E+03	2.07E+02	2.37E+01	1.21E+02	2.97E+00	0.00E+00	7.69E+04

² The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Use of resources for ACSR SVEID

Results per functional or declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	1.43E+04	1.32E+02	9.11E+02	3.90E+00	9.66E+00	9.68E+01	0.00E+00	-1.23E+04
PERM	MJ	8.74E+02	0.00E+00	-8.74E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	1.52E+04	1.32E+02	3.67E+01	3.90E+00	9.66E+00	9.68E+01	0.00E+00	-1.23E+04
PENRE	MJ	7.08E+04	2.41E+03	6.19E+02	6.77E+01	1.68E+02	6.97E+00	0.00E+00	-4.57E+04
PENRM	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
PENRT	MJ	7.08E+04	2.41E+03	6.19E+02	6.77E+01	1.68E+02	6.97E+00	0.00E+00	-4.57E+04
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.41E+03
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
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
FW	m ³	4.44E+01	1.54E-01	2.35E-01	4.54E-03	1.13E-02	1.48E-01	0.00E+00	-4.72E+01
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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water								

Use of resources for ACSR PARROT SP

Results per functional or declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	1.05E+05	2.80E+02	9.11E+02	3.91E+00	1.99E+01	9.68E+01	0.00E+00	-8.10E+04
PERM	MJ	8.74E+02	0.00E+00	-8.74E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	1.06E+05	2.80E+02	3.67E+01	3.91E+00	1.99E+01	9.68E+01	0.00E+00	-8.10E+04
PENRE	MJ	2.49E+05	5.10E+03	6.19E+02	6.78E+01	3.45E+02	6.97E+00	0.00E+00	-1.90E+05
PENRM	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
PENRT	MJ	2.49E+05	5.10E+03	6.19E+02	6.78E+01	3.45E+02	6.97E+00	0.00E+00	-1.90E+05
SM	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E+03
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
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
FW	m ³	2.75E+02	3.27E-01	2.35E-01	4.55E-03	2.32E-02	1.48E-01	0.00E+00	-2.42E+02
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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water								

Waste production and output flows for ACSR SVEID

Waste production

Results per functional or declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	8.51E-05	1.06E-04	2.68E-05	3.13E-06	7.76E-06	7.10E-09	0.00E+00	3.85E-05
Non-hazardous waste disposed	kg	8.43E+02	3.75E-01	6.72E-01	1.07E-02	2.66E-02	4.02E-02	0.00E+00	-5.73E+02
Radioactive waste disposed	kg	3.85E+00	4.36E-03	2.09E-03	1.25E-04	3.09E-04	8.94E-04	0.00E+00	-1.99E+00

Output flows

Results per functional or declared unit									
Indicator	Unit	A1-A3	A4	A5	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
Material for recycling	kg	1.72E+01	0.00E+00	0.00E+00	1.41E+03	0.00E+00	1.41E+03	0.00E+00	0.00E+00
Materials for energy recovery	kg	0.00E+00	0.00E+00	1.64E+02	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	1.16E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	2.09E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Waste production and output flows for ACSR PARROT SP

Waste production

Results per functional or declared unit									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	3.09E-04	2.24E-04	2.68E-05	3.14E-06	1.60E-05	7.10E-09	0.00E+00	2.10E-04
Non-hazardous waste disposed	kg	5.28E+03	7.95E-01	6.72E-01	1.07E-02	5.47E-02	4.02E-02	0.00E+00	-4.44E+03
Radioactive waste disposed	kg	1.34E+01	9.22E-03	2.09E-03	1.25E-04	6.36E-04	8.94E-04	0.00E+00	-1.18E+01

Output flows

Results per functional or declared unit									
Indicator	Unit	A1-A3	A4	A5	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
Material for recycling	kg	6.82E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E+03	0.00E+00	0.00E+00
Materials for energy recovery	kg	0.00E+00	0.00E+00	1.64E+02	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	1.16E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy, thermal	MJ	0.00E+00	0.00E+00	2.09E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Information on biogenic carbon content

Results per functional or declared unit		
BIOTIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	22.5

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.

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