

Environmental Product Declaration



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

Asphalt mixtures from Normstorp and Vagnhärad asphalt plant

from

Asfaltsgruppen Öst AB



Programme:

The International EPD® System, www.environdec.com

Programme operator:

EPD International AB

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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
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CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product category rules (PCR): PCR 2019:14 Construction products, version 1.1 of 2021-02-05
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: ☐ EPD process certification ☒ EPD verification
Third party verifier: David Althoff Palm, Ramboll Sweden AB Approved by: The International EPD® System Technical Committee, supported by the Secretariat.
Procedure for follow-up of data during EPD validity involves third party verifier: ☒ Yes ☐ No

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:

Asfaltgruppen Öst AB
Jägarvällsvägen 3A, 584 22 Linköping, Sweden
Tel. +46 (0)13- 12 59 50
Organization no: 556076-6403
<https://asfaltgruppen.se/>

Contact: Martin Larsson

Description of the organisation: Asfaltgruppen Öst AB is a quality certified manufacturer and distributor of asphalt mixtures with asphalt plants located in Normstorp and Vagnhärad (Sweden).

Product-related or management system-related certifications: The asphalt mixtures are certified according to SS-EN 13108.

Name and location of production site(s): Normstorp, Linköping Sweden and Vagnhärad Sweden

Product information

Product name: The asphalt mixtures declared are ABb, ABD, ABS, ABT, ABÖ, AG and AGF.

Product identification: The products (Asphalt mixtures) contain asphalt mixtures.

Product description: The products included in this EPD are asphalt mixtures distributed by Asfaltgruppen Öst AB from production plants in Normstorp and Vagnhärad, Sweden. The asphalt mixtures consist mainly of coarse and fine aggregates, bitumen and filler in various grades depending on application. The mixtures included in this EPD represent all different asphalt mixtures that's distributed by Asfaltgruppen Öst AB.

ABb is usually used as an intermediate layer between the base layer of asphalt and the top layer. On roads with a high proportion of heavy traffic, it provides high stability and durability.

ABD is used as a second layer on roads where noise and hydroplaning is a problem. Both the noise reduction effect and the draining capacity decreases quite quickly over time, which is why such surfaces need to be re-laid more often to maintain the function.

ABS is used as the top layer on medium and high traffic roads. It provides durable roads that are not deformed and can withstand hard loads. Rainwater can be drained away into the coarse structure that the mixture forms.

ABT could be used for everything from garage driveways to low- and medium traffic roads and streets. The mixture does not have as high resistance to deformation as other asphalt mixtures and is therefore not used on roads with heavy traffic.

ABÖ is a top layer with open structure that can be used for sludged pavings or as base layer for running tracks.

AG is often used as the base layer on roads. It could be used on all types of roads and surfaces. It can also be advantageously laid out in thick layers.

AGF is often used as the base layer on roads and can also be used as a top layer. It could be used on all types of roads and surfaces. It can also be advantageously laid out in thick layers. The AGF mixture has a higher binder content than the AG mixture to cope better with wear and have a longer service life.

To the mixtures different amounts of Recycled Asphalt Pavement (RAP) is added depending on the recipes. The table below shows all asphalt mixtures and the addition of RAP to the different mixtures.

Table 1. Amount of RAP

Asphalt mixture	Normal amount RAP (%)	Maximum amount RAP (%)
ABb	20	30
ABD	4	8
ABS	10	15
ABS PMB	10	15
ABT	15	30
ABT PMB	0	0
ABÖ	0	0
AG	20	30
AGF	20	30

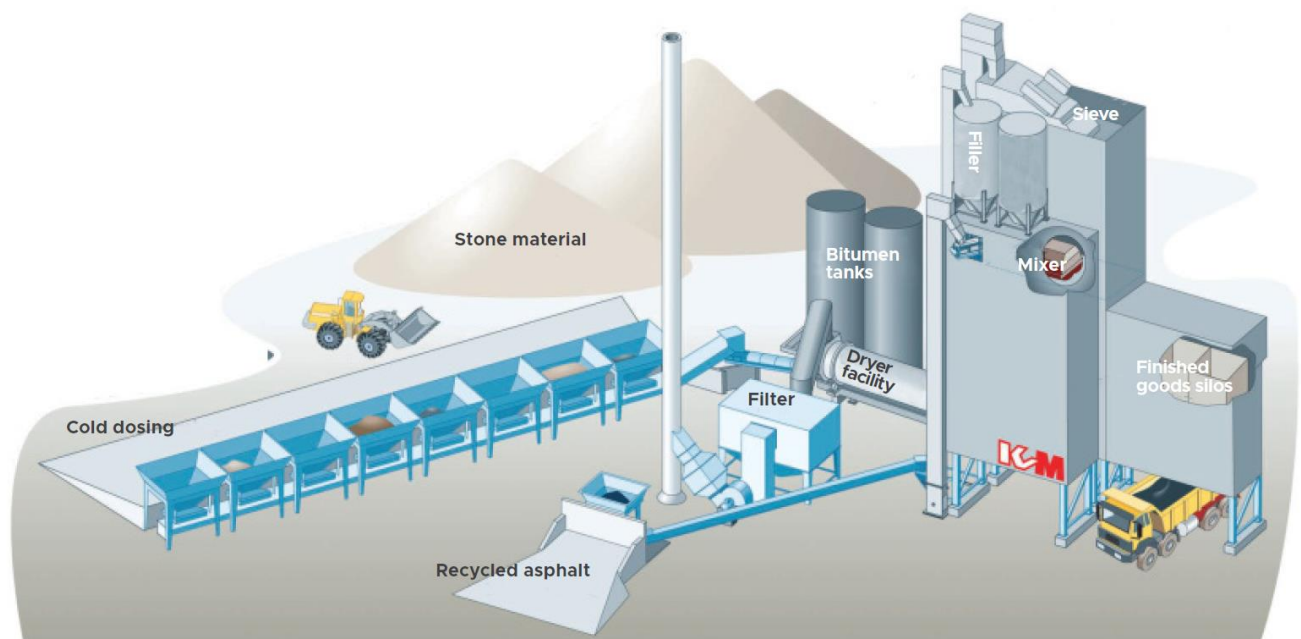
Calculations has been made for three different scenarios for all asphalt mixtures, 0% RAP, normal amount RAP and maximum amount RAP.

Technical information

See description in the table below regarding the mechanical properties for the different asphalt mixtures that has been included in this EPD. The mechanical properties are the same at Normstorp and Vagnhäräd

Table 2. Mechanical properties for asphalt mixtures.

Asphalt mixture	Grain density (g/cm ³)	Chip index (FI)	Binder density (Mg/m ³)	Binder content (vikt-%)	Bulk density (Mg/m ³)	Compact density (Mg/m ³)
ABb	2,66	15 (> 8 mm)	1,015	4,8-5,5	2,355	2,461
ABD	2,66	15 (> 8 mm)	1,015	5,8-5,9	1,988	2,424
ABS	2,66	15 (> 8 mm)	1,015	6,5	2,359	2,406
ABS PMB	2,66	10 (> 8 mm)	1,015	6,5-6,7	2,359	2,406
ABT	2,66	15 (> 8 mm)	1,015	5,8-6,7	2,349	2,403
ABT PMB	2,66	15 (> 8 mm)	1,015	6,2-6,6	2,369	2,417
ABÖ	2,66	15 (> 8 mm)	1,015	3,6	1,797	2,513
AG	2,66	15 (> 8 mm)	1,015	4,2-5,3	2,394	2,468
AGF	2,66	15 (> 8 mm)	1,015	4,5-5,4	2,394	2,468



UN CPC code: 15330

LCA information

Functional unit / declared unit: The declared unit is 1000 kg of asphalt mixture.

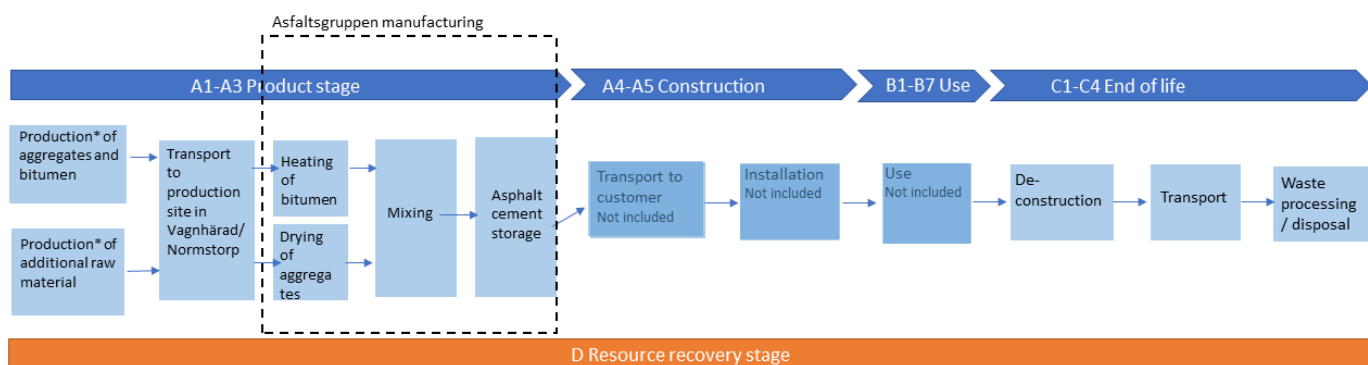
Time representativeness: 2020-08-21- 2021-08-21 is used for the core processes. Generic data is no older than 10 years and specific data is no older than 5 years. Data for PMB from Eurobitume, 2011 is an exception. This data has been used because it is the most relevant data available.

Database(s) and LCA software used: SimaPro 9.3, Ecoinvent 3.8

Description of system boundaries:

Cradle to gate with modules C1–C4 and module D (A1–A3 + C + D)

System diagram:



* Extraction and processing

More information:

Energy information

Electricity used in the production process (A3) at the production sites, Normstorp and Vagnhärad consists of 100% renewable energy from hydropower. The energy used in Normstorp is distributed by Bixia and the energy used in Vagnhärad is distributed by Vattenfall, where data from Vattenfall's EPD has been used.

Table 3. Energy Source

Energy Source	LCA data (g CO ₂ eq/kWh)
Hydropower (Vattenfall)	7,3
Hydropower (Bixia)	4,2

Assumptions

No separate information regarding the quarrying of the quality granulate has been collected from the supplier. It is assumed that the quarrying of the quality stone is very close to the quarrying of regular stone.

Information regarding the transportation type for lorry has not been collected. It is assumed that EURO5 16-32 metric ton is used.

Stage C1-C4 and D are scenarios based and described underneath additional information below.

Cut-off rules

Inflows that are not directly included in the LCA are the building of infrastructure to produce the raw materials. Only the direct suppliers to Asfaltgruppen AB has been questioned about data for the EPD and no suppliers further back in the process has been included. The cut-off criteria is 95% of total inflows according to chapter 4.4 in the PCR.

For this LCA, these cut-offs has been made:

- Maintenance in the production process, according to assumptions that the impacts associated with these aspects are sufficiently small enough to fall below the cut-off criteria.
- Waste from the production. No hazardous waste is handled at the production sites.
- Emissions to air (dust).

No packaging material is used in the production.

Data quality

The quality of the data could be described as good since specific data has been used for all the processes Asfaltgruppen Öst AB has influence over. Specific data has also been gathered from the main part of the suppliers. If specific data has not been available, generic data has been used instead. Generic data has been gathered from the software SimaPro 9.3. Life cycle inventory databases are called "libraries" in SimaPro. The library used for the LCA is; Ecoinvent 3.8.

Allocation

The asphalt mixture families that have been declared consists of different types of asphalt masses. These asphalt masses differ to some extent from each other regarding input of raw materials (different recipes). Based on the different asphalt masses, an average value has been calculated to represent

the asphalt mixture family. For example, the asphalt mixture family ABb for Normstorp consist of the following asphalt masses:

- ABb 11 70_100 Normstorp
- ABb 16 100_150 Normstorp
- ABb 16 160_220 Normstorp
- ABb 16 70_100 Normstorp
- ABb 22 50_70 Normstorp

For the asphalt masses mixture where the raw material differs the most from the other mixtures asphalt masses in the family, calculations has been made to make sure that the results doesn't differ more than 10% for the GWP-GHG indicator according to paragraph 4.6.1 in the PCR.

For more information visit: <https://asfaltgruppen.se/>

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

Table 4. Modules declared

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	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	ND	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	SE PL	SE PL	SE	-	-	-	-	-	-	-	-	-	SE	SE	SE	SE	SE
Specific data used	95%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	<10%*					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	Not relevant, the 2 different sites are reported separately					-	-	-	-	-	-	-	-	-	-	-	-

* Variation of <10% between products refer to the variation between the asphalt masses within the asphalt mixtures. The asphalt mixtures are reported separately.

Content information

In the table below, all components in the asphalt masses are reported. Some mixtures contain soft bitumen and some PMB. RAP is not added to all asphalt mixtures.

Table 5. Content information, ranges for the declared asphalt mixtures manufactured in Normstorp and Vagnhärad

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Aggregates 0-2	3,8-337	0	0
Aggregates 2-4	3,8-150	0	0
Aggregates 4-8	14-354	0	0
Aggregates 8-12	42-394	0	0
Aggregates 12-16	0-544	0	0
Aggregates 16-32	0-126	0	0
Quality aggregates 4/8	28-127	0	0
Quality aggregates 8/11	25-159	0	0
Quality aggregates 11/16	11-262	0	0
Recycled Asphalt Pavement (RAP)		0-30	0
Soft bitumen	63-65	0	0
Polymer Modified Bitumen (PMB)	63-65	0	0
Filler	3,8-89	0	0
Wetfix (additives)	0,1-0,2	0	0

No packaging material is used.

The asphalt mixtures contain no substances included in the REACH Candidate list (Substance of Very High Concern).

Environmental Information

Note that the impact categories below are only representing the impact potentials, which means that they are approximations of environmental impacts that could occur. Results presented in the tables below represent the declared unit of 1000 kg asphalt mixture.

Potential environmental impact – mandatory indicators according to EN 15804

		ABb, Normstorp						ABD, Normstorp						ABS, Normstorp					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	2,31E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-8,06E-02	2,56E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-2,06E-01	2,73E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-1,59E-01
GWP-fossil	kg CO ₂ eq.	2,29E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-7,64E-02	2,54E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-1,95E-01	2,73E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-1,50E-01
GWP-biogenic	kg CO ₂ eq.	-3,69E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-2,85E-03	-3,58E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-7,28E-03	-4,50E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-5,62E-03
GWP-luluc	kg CO ₂ eq.	5,11E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-9,72E-04	5,13E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-2,48E-03	5,10E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-1,92E-03
ODP	kg CFC 11 eq.	2,75E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-1,24E-08	2,94E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-3,15E-08	3,27E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-2,44E-08
AP	mol H ⁺ eq.	5,94E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-4,64E-04	6,23E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-1,18E-03	6,43E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-9,14E-04
EP-freshwater	kg PO ₄ ³⁻ eq. ¹	4,47E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-1,47E-05	4,60E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-3,75E-05	4,76E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-2,89E-05
EP-marine	kg N eq.	4,26E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-1,61E-04	4,32E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-4,10E-04	4,42E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-3,17E-04
EP-terrestrial	mol N eq.	2,63E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-1,74E-03	2,69E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-4,45E-03	2,77E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-3,44E-03
POCP	kg NMVOC eq.	4,08E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-5,44E-04	4,24E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-1,39E-03	4,40E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-1,07E-03

¹ To receive the value in P, EP- freshwater can be multiplied by 0,3261.

ADP-minerals & metals*	kg Sb eq.	1,12E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-3,89E-07	1,12E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-9,94E-07	1,19E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-7,67E-07
ADP-fossil*	MJ	2,06E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-9,90E-01	2,78E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-2,53E+00	2,89E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-1,95E+00
WDP	m³	4,58E+00	2,90E-02	3,76E-01	1,80E-02	0,00	-5,46E-02	4,90E+00	2,90E-02	3,76E-01	1,80E-02	0,00	-1,39E-01	5,13E+00	2,90E-02	3,76E-01	1,80E-02	0,00	-1,08E-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 of these results are high or as there is limited experience with the indicator.

		ABS PMB, Normstorp						ABT, Normstorp						ABT PMB, Normstorp					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	3,89E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-1,59E-01	2,55E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-1,20E-01	3,87E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-2,37E-01
GWP-fossil	kg CO ₂ eq.	3,89E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-1,50E-01	2,53E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-1,13E-01	3,86E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-2,25E-01
GWP-biogenic	kg CO ₂ eq.	-5,26E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-5,62E-03	-3,84E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-4,24E-03	-4,29E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-8,39E-03
GWP-luluc	kg CO ₂ eq.	5,08E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-1,92E-03	5,11E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-1,44E-03	5,11E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-2,86E-03
ODP	kg CFC11 eq.	2,77E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-2,44E-08	2,98E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-1,84E-08	2,45E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-3,63E-08
AP	mol H ⁺ eq.	7,33E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-9,14E-04	6,22E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-6,89E-04	7,28E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-1,36E-03
EP-freshwater	kg PO ₄ ³⁻ eq ² .	4,44E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-2,89E-05	4,60E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-2,18E-05	4,29E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-4,32E-05
EP-marine	kg N eq.	4,58E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-3,17E-04	4,33E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-2,39E-04	4,50E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-4,73E-04
EP-terrestrial	mol N eq.	2,92E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-3,44E-03	2,70E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-2,59E-03	2,87E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-5,13E-03
POCP	kg NMVOC eq.	4,99E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-1,07E-03	4,25E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-8,07E-04	4,91E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-1,60E-03
ADP-minerals & metals*	kg Sb eq.	1,23E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-7,67E-07	1,14E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-5,78E-07	1,16E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-1,14E-06
ADP-fossil*	MJ	3,05E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-	1,95E+00	1,85E+01	1,26E+02	9,70E+00	0,00	-	1,47E+00	3,21E+03	1,85E+01	1,26E+02	9,70E+00	-
WDP	m ³	2,24E+01	2,90E-02	3,76E-01	1,80E-02	0,00	-1,08E-01	4,86E+00	2,90E-02	3,76E-01	1,80E-02	0,00	-8,10E-02	2,34E+01	2,90E-02	3,76E-01	1,80E-02	0,00	-1,60E-01

* 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.

² To receive the value in P, EP- freshwater can be multiplied by 0,3261.

		ABÖ, Normstorp						AG, Normstorp						AGF, Normstorp					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	2,20E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-2,37E-01	2,20E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-8,06E-02	2,26E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-8,06E-02
GWP-fossil	kg CO ₂ eq.	2,19E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-2,25E-01	2,19E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-7,64E-02	2,25E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-7,64E-02
GWP-biogenic	kg CO ₂ eq.	-1,55E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-8,39E-03	-1,61E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-2,85E-03	-3,71E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-2,85E-03
GWP-luluc	kg CO ₂ eq.	2,66E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-2,86E-03	2,65E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-9,72E-04	5,11E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-9,72E-04
ODP	kg CFC 11 eq.	2,69E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-3,63E-08	2,69E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-1,24E-08	2,72E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-1,24E-08
AP	mol H ⁺ eq.	5,83E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-1,36E-03	5,84E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-4,64E-04	5,89E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-4,64E-04
EP-freshwater ³	kg PO ₄ ³⁻ eq. ³	4,37E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-4,32E-05	4,35E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-1,47E-05	4,45E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-1,47E-05
EP-marine	kg N eq.	4,23E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-4,73E-04	4,22E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-1,61E-04	4,25E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-1,61E-04
EP-terrestrial	mol N eq.	2,61E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-5,13E-03	2,60E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-1,74E-03	2,62E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-1,74E-03
POCP	kg NMVOC eq.	4,02E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-1,60E-03	4,02E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-5,44E-04	4,05E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-5,44E-04
ADP-minerals & metals*	kg Sb eq.	1,09E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-1,14E-06	1,08E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-3,89E-07	1,12E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-3,89E-07
ADP-fossil*	MJ	1,80E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-2,91E+00	1,82E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-9,90E-01	1,92E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-9,90E-01
WDP	m ³	4,43E+00	2,90E-02	3,76E-01	1,80E-02	0,00	-1,60E-01	4,33E+00	2,90E-02	3,76E-01	1,80E-02	0,00	-5,46E-02	4,53E+00	2,90E-02	3,76E-01	1,80E-02	0,00	-5,46E-02

* 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.

³ To receive the value in P, EP- freshwater can be multiplied by 0,3261.

		ABb, Vagnhärad						ABD, Vagnhärad						ABS, Vagnhärad					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	2,43E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-8,06E-02	2,70E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-2,06E-01	2,91E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-1,59E-01
GWP-fossil	kg CO ₂ eq.	2,42E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-7,64E-02	2,68E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-1,95E-01	2,90E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-1,50E-01
GWP-biogenic	kg CO ₂ eq.	-3,92E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-2,85E-03	-3,80E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-7,28E-03	-5,16E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-5,62E-03
GWP-luluc	kg CO ₂ eq.	5,42E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-9,72E-04	5,44E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-2,48E-03	5,43E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-1,92E-03
ODP	kg CFC 11 eq.	2,94E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-1,24E-08	3,13E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-3,15E-08	3,54E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-2,44E-08
AP	mol H ⁺ eq.	6,42E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-4,64E-04	6,72E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-1,18E-03	6,96E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-9,14E-04
EP-freshwater	kg PO ₄ ³⁻ eq. ⁴	4,89E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-1,47E-05	5,03E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-3,75E-05	5,27E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-2,89E-05
EP-marine	kg N eq.	4,65E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-1,61E-04	4,71E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-4,10E-04	4,84E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-3,17E-04
EP-terrestrial	mol N eq.	2,86E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-1,74E-03	2,93E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-4,45E-03	3,02E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-3,44E-03
POCP	kg NMVOC eq.	4,40E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-5,44E-04	4,57E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-1,39E-03	4,76E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-1,07E-03
ADP-minerals & metals*	kg Sb eq.	1,23E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-3,89E-07	1,23E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-9,94E-07	1,33E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-7,67E-07
ADP-fossil*	MJ	2,03E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-9,90E-01	2,79E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-2,53E+00	2,90E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-1,95E+00
WDP	m ³	4,91E+00	2,90E-02	3,76E-01	1,80E-02	0,00	-5,46E-02	5,24E+00	2,90E-02	3,76E-01	1,80E-02	0,00	-1,39E-01	5,58E+00	2,90E-02	3,76E-01	1,80E-02	0,00	-1,08E-01

* 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

⁴ To receive the value in P, EP- freshwater can be multiplied by 0,3261.

		ABS PMB, Vagnhärad						ABT, Vagnhärad						ABT PMB, Vagnhärad					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	3,99E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-1,59E-01	2,69E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-1,20E-01	4,04E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-2,37E-01
GWP-fossil	kg CO ₂ eq.	3,99E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-1,50E-01	2,68E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-1,13E-01	4,04E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-2,25E-01
GWP-biogenic	kg CO ₂ eq.	-5,44E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-5,62E-03	-4,23E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-4,24E-03	-2,95E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-8,39E-03
GWP-luluc	kg CO ₂ eq.	5,42E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-1,92E-03	5,43E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-1,44E-03	2,96E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-2,86E-03
ODP	kg CFC 11 eq.	2,86E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-2,44E-08	3,18E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-1,84E-08	2,75E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-3,63E-08
AP	mol H ⁺ eq.	7,77E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-9,14E-04	6,71E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-6,89E-04	7,82E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-1,36E-03
EP-freshwater	kg PO ₄ ³⁻ eq. ⁵	4,85E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-2,89E-05	5,05E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-2,18E-05	4,72E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-4,32E-05
EP-marine	kg N eq.	4,95E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-3,17E-04	4,73E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-2,39E-04	4,92E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-4,73E-04
EP-terrestrial	mol N eq.	3,13E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-3,44E-03	2,93E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-2,59E-03	3,13E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-5,13E-03
POCP	kg NMVOC eq.	5,26E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-1,07E-03	4,58E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-8,07E-04	5,28E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-1,60E-03
ADP-minerals & metals*	kg Sb eq.	1,33E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-7,67E-07	1,26E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-5,78E-07	1,26E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-1,14E-06
ADP-fossil*	MJ	3,06E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-1,95E+00	2,65E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-1,47E+00	3,23E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-2,91E+00
WDP	m ³	2,28E+01	2,90E-02	3,76E-01	1,80E-02	0,00	-1,08E-01	5,22E+00	2,90E-02	3,76E-01	1,80E-02	0,00	-8,10E-02	2,37E+01	2,90E-02	3,76E-01	1,80E-02	0,00	-1,60E-01

* 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

⁵ To receive the value in P, EP- freshwater can be multiplied by 0,3261.

		ABÖ, Vagnhärad						AG, Vagnhärad						AGF, Vagnhärad					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq.	2,34E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-2,37E-01	2,35E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-8,06E-02	2,41E+01	1,35E+00	8,32E+00	6,94E-01	0,00	-8,06E-02
GWP-fossil	kg CO ₂ eq.	2,33E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-2,25E-01	2,33E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-7,64E-02	2,39E+01	1,35E+00	8,31E+00	6,94E-01	0,00	-7,64E-02
GWP-biogenic	kg CO ₂ eq.	-1,78E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-8,39E-03	-1,83E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-2,85E-03	-3,93E-01	4,77E-04	7,08E-03	3,10E-04	0,00	-2,85E-03
GWP-luluc	kg CO ₂ eq.	2,98E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-2,86E-03	2,96E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-9,72E-04	5,42E-01	1,35E-04	3,26E-03	1,07E-04	0,00	-9,72E-04
ODP	kg CFC 11 eq.	2,88E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-3,63E-08	2,88E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-1,24E-08	2,92E-06	2,89E-07	1,92E-06	1,51E-07	0,00	-1,24E-08
AP	mol H ⁺ eq.	6,32E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-1,36E-03	6,33E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-4,64E-04	6,39E-01	1,40E-02	3,37E-02	6,39E-03	0,00	-4,64E-04
EP-freshwater	kg PO ₄ ³⁻ eq. ⁶	4,80E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-4,32E-05	4,78E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-1,47E-05	4,88E-03	4,19E-05	5,35E-04	2,58E-05	0,00	-1,47E-05
EP-marine	kg N eq.	4,62E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-4,73E-04	4,62E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-1,61E-04	4,64E-01	6,22E-03	1,02E-02	2,75E-03	0,00	-1,61E-04
EP-terrestrial	mol N eq.	2,84E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-5,13E-03	2,84E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-1,74E-03	2,85E+00	6,82E-02	1,11E-01	3,02E-02	0,00	-1,74E-03
POCP	kg NMVOC eq.	4,36E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-1,60E-03	4,36E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-5,44E-04	4,39E-01	1,88E-02	3,40E-02	8,35E-03	0,00	-5,44E-04
ADP-minerals & metals*	kg Sb eq.	1,19E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-1,14E-06	1,19E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-3,89E-07	1,23E-04	6,95E-07	2,89E-05	7,41E-07	0,00	-3,89E-07
ADP-fossil*	MJ	1,81E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-2,91E+00	1,86E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-9,90E-01	1,96E+03	1,85E+01	1,26E+02	9,70E+00	0,00	-9,90E-01
WDP	m ³	4,77E+00	2,90E-02	3,76E-01	1,80E-02	0,00	-1,60E-01	4,68E+00	2,90E-02	3,76E-01	1,80E-02	0,00	-5,46E-02	4,89E+00	2,90E-02	3,76E-01	1,80E-02	0,00	-5,46E-02

* 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.

⁶ To receive the value in P, EP- freshwater can be multiplied by 0,3261.

Potential environmental impact – additional mandatory and voluntary indicators

Indicator	Unit	ABb, Normstorp						ABD, Normstorp						ABS, Normstorp					
GWP-GHG ⁷	kg CO ₂ eq.	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
No RAP		24,3	1,34	8,24	0,687	0,00	-0,224	25,4	1,34	8,24	0,687	0,00	-0,224	27,7	1,34	8,24	0,687	0,00	-0,224
Normal amount RAP		22,5	1,34	8,24	0,687	0,00	-0,0763	25,0	1,34	8,24	0,687	0,00	-0,195	26,8	1,34	8,24	0,687	0,00	-0,150
Max amount RAP		21,6	1,34	8,24	0,687	0,00	-0,00224	24,6	1,34	8,24	0,687	0,00	-0,165	26,4	1,34	8,24	0,687	0,00	-0,113

Indicator	Unit	ABS PMB, Normstorp						ABT, Normstorp						ABT PMB, Normstorp					
GWP-GHG ⁸	kg CO ₂ eq.	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
No RAP		40,7	1,34	8,24	0,687	0,00	-0,224	26,3	1,34	8,24	0,687	0,00	-0,224	37,8	1,34	8,24	0,687	0,00	-0,224
Normal amount RAP		38,1	1,34	8,24	0,687	0,00	-0,150	24,9	1,34	8,24	0,687	0,00	-0,113	ND	ND	ND	ND	ND	ND
Max amount RAP		37,1	1,34	8,24	0,687	0,00	-0,113	23,6	1,34	8,24	0,687	0,00	-0,00224	ND	ND	ND	ND	ND	ND

7-8 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 almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Indicator	Unit	ABÖ, Normstorp						AG, Normstorp						AGF, Normstorp					
GWP-GHG ⁹	kg CO ₂ eq.	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
No RAP		21,3	1,34	8,24	0,687	0,00	-0,224	23,1	1,34	8,24	0,687	0,00	-0,224	23,9	1,34	8,24	0,687	0,00	-0,224
Normal amount RAP		ND	ND	ND	ND	ND	ND	21,3	1,34	8,24	0,687	0,00	-0,0763	22,1	1,34	8,24	0,687	0,00	-0,0763
Max amount RAP		ND	ND	ND	ND	ND	ND	20,4	1,34	8,24	0,687	0,00	-0,00224	21,2	1,34	8,24	0,687	0,00	-0,00224

Indicator	Unit	ABb, Vagnhärad						ABD, Vagnhärad						ABS, Vagnhärad					
GWP-GHG ¹⁰	kg CO ₂ eq.	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
No RAP		25,6	1,34	8,24	0,687	0,00	-0,224	26,8	1,34	8,24	0,687	0,00	-0,224	27,7	1,34	8,24	0,687	0,00	-0,224
Normal amount RAP		23,8	1,34	8,24	0,687	0,00	-0,0763	26,4	1,34	8,24	0,687	0,00	-0,195	28,6	1,34	8,24	0,687	0,00	-0,150
Max amount RAP		23,0	1,34	8,24	0,687	0,00	-0,00224	26,0	1,34	8,24	0,687	0,00	-0,165	28,1	1,34	8,24	0,687	0,00	-0,113

9-10 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 almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Indicator	Unit	ABS PMB, Vagnhärad						ABT, Vagnhärad						ABT PMB, Vagnhärad					
GWP-GHG ¹¹	kg CO ₂ eq.	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
No RAP		40,9	1,34	8,24	0,687	0,00	-0,224	27,9	1,34	8,24	0,687	0,00	-0,224	39,3	1,34	8,24	0,687	0,00	-0,224
Normal amount RAP		39,0	1,34	8,24	0,687	0,00	-0,150	26,3	1,34	8,24	0,687	0,00	-0,113	ND	ND	ND	ND	ND	ND
Max amount RAP		38,1	1,34	8,24	0,687	0,00	-0,113	24,9	1,34	8,24	0,687	0,00	-0,00224	ND	ND	ND	ND	ND	ND

Indicator	Unit	ABÖ, Vagnhärad						AG, Vagnhärad						AGF, Vagnhärad					
GWP-GHG ¹²	kg CO ₂ eq.	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
No RAP		22,6	1,34	8,24	0,687	0,00	-0,224	24,5	1,34	8,24	0,687	0,00	-0,224	23,1	1,34	8,24	0,687	0,00	-0,224
Normal amount RAP		ND	ND	ND	ND	ND	ND	22,7	1,34	8,24	0,687	0,00	-0,0763	23,5	1,34	8,24	0,687	0,00	-0,0763
Max amount RAP		ND	ND	ND	ND	ND	ND	21,8	1,34	8,24	0,687	0,00	-0,00224	22,6	1,34	8,24	0,687	0,00	-0,00224

11-12 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 almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Use of resources

		ABb, Normstorp						ABD, Normstorp						ABS, Normstorp					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
PERE	MJ	386	0,104	1,77	0,0711	0,00	-0,333	370	0,104	1,77	0,0711	0,00	-0,851	379	0,104	1,77	0,0711	0,00	-0,657
PERM	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
PERT	MJ	386	0,104	1,77	0,0711	0,00	-0,333	370	0,104	1,77	0,0711	0,00	-0,851	379	0,104	1,77	0,0711	0,00	-0,657
PENRE	MJ	397	19,7	133,4	10,3	0,00	-1,04	556	19,7	133,4	10,3	0,00	-2,66	553	19,7	133,4	10,3	0,00	-2,06
PENRM	MJ.	1764	0,00	0,00	0,00	0,00	0,00	2394	0,00	0,00	0,00	0,00	0,00	2520	0,00	0,00	0,00	0,00	0,00
PENRT	MJ	2161	19,7	133	10,3	0,00	-1,04	2950	19,7	133	10,3	0,00	-2,66	3073	19,7	133	10,3	0,00	-2,06
SM	kg	200	0,00	0,00	0,00	0,00	0,00	40	0,00	0,00	0,00	0,00	0,00	100	0,00	0,00	0,00	0,00	0,00
RSF	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
NRSF	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
FW	m³	2,13	0,00	0,0210	0,00	0,00	-0,115	2,31	0,00	0,0210	0,00	0,00	-0,294	2,27	0,00	0,0210	0,00	0,00	-0,227
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																		

		ABS PMB, Normstorp						ABT, Normstorp						ABT PMB, Normstorp					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
PERE	MJ	381	0,104	1,77	0,0711	0,00	-0,657	371	0,104	1,77	0,0711	0,00	-0,495	372	0,104	1,77	0,0711	0,00	-0,980
PERM	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
PERT	MJ	381	0,104	1,77	0,0711	0,00	-0,657	371	0,104	1,77	0,0711	0,00	-0,495	372	0,104	1,77	0,0711	0,00	-0,980
PENRE	MJ	721	19,7	133,4	10,3	0,00	-2,06	506	19,7	133,4	10,3	0,00	-1,55	890	19,7	133	10,3	0,00	-3,07
PENRM	MJ.	2520	0,00	0,00	0,00	0,00	0,00	2310	0,00	0,00	0,00	0,00	0,00	2520	0,00	0,00	0,00	0,00	0,00
PENRT	MJ	3241	19,7	133	10,3	0,00	-2,06	2816	19,7	133	10,3	0,00	-1,55	3410	19,7	133	10,3	0,00	-3,07
SM	kg	100	0,00	0,00	0,00	0,00	0,00	150	0,00	0,00	0,00	0,00	0,00	100	0,00	0,00	0,00	0,00	0,00
RSF	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
NRSF	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
FW	m³	3,56	0,02	0,2770	0,01	0,00	-0,234	2,20	0,00	0,0210	0,00	0,00	-0,171	3,61	0,02	0,277	0,01	0,00	-0,349
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																		

		ABÖ, Normstorp						AG, Normstorp						AGF, Normstorp					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
PERE	MJ	364	0,104	1,77	0,0711	0,00	-0,980	363	0,104	1,77	0,0711	0,00	-0,333	368	0,104	1,77	0,0711	0,00	-0,333
PERM	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
PERT	MJ	364	0,104	1,77	0,0711	0,00	-0,980	363	0,104	1,77	0,0711	0,00	-0,333	368	0,104	1,77	0,0711	0,00	-0,333
PENRE	MJ	396	19,7	133	10,3	0,00	-3,07	424	19,7	133	10,3	0,00	-1,04	450	19,7	133	10,3	0,00	-1,04
PENRM	MJ.	1512	0,00	0,00	0,00	0,00	0,00	1512	0,00	0,00	0,00	0,00	0,00	1596	0,00	0,00	0,00	0,00	0,00
PENRT	MJ	1908	19,7	133	10,3	0,00	-3,07	1936	19,7	133	10,3	0,00	-1,04	2046	19,7	133	10,3	0,00	-1,04
SM	kg	0	0,00	0,00	0,00	0,00	0,00	200	0,00	0,00	0,00	0,00	0,00	200	0,00	0,00	0,00	0,00	0,00
RSF	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
NRSF	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
FW	m³	2,37	0,00	0,0210	0,00	0,00	-0,339	2,13	0,00	0,0210	0,00	0,00	-0,115	2,13	0,00	0,0210	0,00	0,00	-0,115
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																		

		ABb, Vagnhärad						ABD, Vagnhärad						ABS, Vagnhärad					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
PERE	MJ	368	0,104	1,77	0,0711	0,00	-0,333	387	0,104	1,77	0,0711	0,00	-0,851	399	0,104	1,77	0,0711	0,00	-0,657
PERM	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
PERT	MJ	368	0,104	1,77	0,0711	0,00	-0,333	387	0,104	1,77	0,0711	0,00	-0,851	399	0,104	1,77	0,0711	0,00	-0,657
PENRE	MJ	509	19,7	133	10,3	0,00	-1,04	571	19,7	133	10,3	0,00	-2,66	607	19,7	133	10,3	0,00	-2,06
PENRM	MJ.	1680	0,00	0,00	0,00	0,00	0,00	2394	0,00	0,00	0,00	0,00	0,00	2478	0,00	0,00	0,00	0,00	0,00
PENRT	MJ	2189	19,7	133	10,3	0,00	-1,04	2965	19,7	133	10,3	0,00	-2,66	3085	19,7	133	10,3	0,00	-2,06
SM	kg	200	0,00	0,00	0,00	0,00	0,00	40,0	0,00	0,00	0,00	0,00	0,00	100	0,00	0,00	0,00	0,00	0,00
RSF	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
NRSF	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
FW	m³	2,26	0,00	0,0210	0,00	0,00	-0,115	2,43	0,00	0,0210	0,00	0,00	-0,294	2,41	0,00	0,0210	0,00	0,00	-0,227
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																		

		ABS PMB, Vagnhärad						ABT, Vagnhärad						ABT PMB, Vagnhärad					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
PERE	MJ	396	0,104	1,77	0,0711	0,00	-0,657	390	0,104	1,77	0,0711	0,00	-0,495	388	0,104	1,77	0,0711	0,00	-0,980
PERM	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
PERT	MJ	396	0,104	1,77	0,0711	0,00	-0,657	390	0,104	1,77	0,0711	0,00	-0,495	388	0,104	1,77	0,0711	0,00	-0,980
PENRE	MJ	776	19,7	133	10,3	0,00	-2,06	546	19,7	133	10,3	0,00	-1,55	784	19,7	133	10,3	0,00	-3,07
PENRM	MJ.	2478	0,00	0,00	0,00	0,00	0,00	2268	0,00	0,00	0,00	0,00	0,00	2646	0,00	0,00	0,00	0,00	0,00
PENRT	MJ	3254	19,7	133	10,3	0,00	-2,06	2814	19,7	133	10,3	0,00	-1,55	3430	19,7	133	10,3	0,00	-3,07
SM	kg	100	0,00	0,00	0,00	0,00	0,00	150	0,00	0,00	0,00	0,00	0,00	100	0,00	0,00	0,00	0,00	0,00
RSF	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
NRSF	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
FW	m³	3,74	0,02	0,277	0,0123	0,00	-0,234	2,29	0,00	0,021	0,0010	0,00	-0,171	3,81	0,02	0,277	0,0123	0,00	-0,349
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																		

		ABÖ, Vagnhärad						AG, Vagnhärad						AGF, Vagnhärad					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
PERE	MJ	382	0,104	1,77	0,0711	0,00	-0,980	381	0,104	1,77	0,0711	0,00	-0,333	386	0,104	1,77	0,0711	0,00	-0,333
PERM	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
PERT	MJ	382	0,104	1,77	0,0711	0,00	-0,980	381	0,104	1,77	0,0711	0,00	-0,333	386	0,104	1,77	0,0711	0,00	-0,333
PENRE	MJ	411	19,7	133	10,3	0,00	-3,07	421	19,7	133	10,3	0,00	-1,04	442	19,7	133	10,3	0,00	-1,04
PENRM	MJ.	1512	0,00	0,00	0,00	0,00	0,00	1554	0,00	0,00	0,00	0,00	0,00	1638	0,00	0,00	0,00	0,00	0,00
PENRT	MJ	1923	19,7	133	10,3	0,00	-3,07	1975	19,7	133	10,3	0,00	-1,04	2080	19,7	133	10,3	0,00	-1,04
SM	kg	0	0,00	0,00	0,00	0,00	0,00	200	0,00	0,00	0,00	0,00	0,00	200	0,00	0,00	0,00	0,00	0,00
RSF	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
NRSF	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
FW	m³	2,49	0,00	0,0210	0,00102	0,00	-0,339	2,25	0,00	0,0210	0,00102	0,00	-0,115	2,26	0,00	0,0210	0,00102	0,00	-0,115
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

Waste production

Indicator	Unit	A1-A3	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0	0	0	0	0	0
Non-hazardous waste disposed	kg	0	0	0	0	0	0
Radioactive waste disposed	kg	0	0	0	0	0	0

Output flows

Indicator	Unit	A1-A3	C1	C2	C3	C4	D
Components for re-use	kg	0	0	0	0	0	0
Material for recycling	kg	0	0	0	300	0	0
Materials for energy recovery	kg	0	0	0	0	0	0
Exported energy, electricity	MJ	0	0	0	0	0	0

Information on biogenic carbon content

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

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

Other environmental indicators

		ABb, Normstorp						ABD, Normstorp						ABS, Normstorp					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
Particulate Matter emissions	disease inc.	1,66E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-1,12E-06	1,82E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-2,87E-06	1,40E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-2,21E-06
Ionizing radiation, human health	kBq U-235 eq	1,40E+01	8,36E-02	6,46E-01	4,50E-02	0,00	-5,26E-03	1,89E+01	8,36E-02	6,46E-01	4,50E-02	0,00	-1,34E-02	1,97E+01	8,36E-02	6,46E-01	4,50E-02	0,00	-1,04E-02
Eco-toxicity (freshwater)	CTUe	7,01E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-1,64E+00	7,43E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-4,20E+00	7,73E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-3,24E+00
Human toxicity, cancer effects	CTUe	3,19E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-2,02E-10	3,24E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-5,14E-10	3,34E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-3,97E-10
Human toxicity, non-cancer effects	CTUe	1,59E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-1,43E-09	1,60E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-3,66E-09	1,64E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-2,82E-09
Land use related impact/Soil quality	Pt	1,08E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-6,71E+00	1,09E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-1,71E+01	1,13E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-1,32E+01

		ABS PMB, Normstorp						ABT, Normstorp						ABT PMB, Normstorp					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
Particulate Matter emissions	disease inc.	1,35E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-2,21E-06	1,62E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-1,67E-06	1,82E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-3,31E-06
Ionizing radiation, human health	kBq U-235 eq	1,31E+00	8,36E-02	6,46E-01	4,50E-02	0,00	-1,04E-02	1,80E+01	8,36E-02	6,46E-01	4,50E-02	0,00	-7,81E-03	1,20E+00	8,36E-02	6,46E-01	4,50E-02	0,00	-1,55E-02
Eco-toxicity (freshwater)	CTUe	6,40E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-3,24E+00	7,41E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-2,44E+00	6,15E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-4,83E+00
Human toxicity, cancer effects	CTUe	3,31E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-3,97E-10	3,24E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-2,99E-10	3,22E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-5,93E-10
Human toxicity, non-cancer effects	CTUe	1,63E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-2,82E-09	1,61E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-2,13E-09	1,59E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-4,21E-09
Land use related impact/S oil quality	Pt	1,15E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-1,32E+01	1,09E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-9,97E+00	1,11E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-1,97E+01

		ABÖ, Normstorp						AG, Normstorp						AGF, Normstorp					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
Particulate Matter emissions	disease inc.	1,90E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-3,31E-06	1,66E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-1,12E-06	1,66E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-1,12E-06
Ionizing radiation, human health	kBq U-235 eq	1,22E+01	8,36E-02	6,46E-01	4,50E-02	0,00	-1,55E-02	1,24E+01	8,36E-02	6,46E-01	4,50E-02	0,00	-5,26E-03	1,31E+01	8,36E-02	6,46E-01	4,50E-02	0,00	-5,26E-03
Eco-toxicity (freshwater)	CTUe	6,76E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-4,83E+00	6,75E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-1,64E+00	6,94E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-1,64E+00
Human toxicity, cancer effects	CTUe	3,16E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-5,93E-10	3,12E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-2,02E-10	3,19E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-2,02E-10
Human toxicity, non-cancer effects	CTUe	1,58E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-4,21E-09	1,58E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-1,43E-09	1,59E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-1,43E-09
Land use related impact/S oil quality	Pt	1,08E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-1,97E+01	1,07E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-6,71E+00	1,08E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-6,71E+00

		ABb, Vagnhärad						ABD, Vagnhärad						ABS, Vagnhärad					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
Particulate Matter emissions	disease inc.	5,43E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-1,12E-06	5,57E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-2,87E-06	5,29E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-2,21E-06
Ionizing radiation, human health	kBq U-235 eq	1,38E+01	8,36E-02	6,46E-01	4,50E-02	0,00	-5,26E-03	1,90E+01	8,36E-02	6,46E-01	4,50E-02	0,00	-1,34E-02	1,97E+01	8,36E-02	6,46E-01	4,50E-02	0,00	-1,04E-02
Eco-toxicity (freshwater)	CTUe	7,54E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-1,64E+00	7,98E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-4,20E+00	8,38E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-3,24E+00
Human toxicity, cancer effects	CTUe	3,47E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-2,02E-10	3,52E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-5,14E-10	3,66E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-3,97E-10
Human toxicity, non-cancer effects	CTUe	1,74E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-1,43E-09	1,75E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-3,66E-09	1,81E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-2,82E-09
Land use related impact/S oil quality	Pt	1,18E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-6,71E+00	1,19E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-1,71E+01	1,25E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-1,32E+01

		ABS PMB, Vagnhärad						ABT, Vagnhärad						ABT PMB, Vagnhärad					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
Particulate Matter emissions	disease inc.	5,41E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-2,21E-06	5,37E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-1,67E-06	5,59E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-3,31E-06
Ionizing radiation, human health	kBq U-235 eq	1,38E+00	8,36E-02	6,46E-01	4,50E-02	0,00	-1,04E-02	1,80E+01	8,36E-02	6,46E-01	4,50E-02	0,00	-7,81E-03	1,33E+00	8,36E-02	6,46E-01	4,50E-02	0,00	-1,55E-02
Eco-toxicity (freshwater)	CTUe	6,90E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-3,24E+00	7,98E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-2,44E+00	6,69E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-4,83E+00
Human toxicity, cancer effects	CTUe	3,58E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-3,97E-10	3,53E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-2,99E-10	3,50E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-5,93E-10
Human toxicity, non-cancer effects	CTUe	1,78E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-2,82E-09	1,77E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-2,13E-09	1,76E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-4,21E-09
Land use related impact/S oil quality	Pt	1,24E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-1,32E+01	1,20E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-9,97E+00	1,22E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-1,97E+01

		ABÖ, Vagnhärad						AG, Vagnhärad						AGF, Vagnhärad					
Indicator	Unit	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D	A1-A3	C1	C2	C3	C4	D
Particulate Matter emissions	disease inc.	5,66E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-3,31E-06	5,43E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-1,12E-06	5,43E-05	3,77E-07	7,17E-07	1,68E-07	0,00	-1,12E-06
Ionizing radiation, human health	kBq U-235 eq	1,23E+01	8,36E-02	6,46E-01	4,50E-02	0,00	-1,55E-02	1,26E+01	8,36E-02	6,46E-01	4,50E-02	0,00	-5,26E-03	1,33E+01	8,36E-02	6,46E-01	4,50E-02	0,00	-5,26E-03
Eco-toxicity (freshwater)	CTUe	7,31E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-4,83E+00	7,31E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-1,64E+00	7,50E+02	1,09E+01	9,81E+01	6,06E+00	0,00	-1,64E+00
Human toxicity, cancer effects	CTUe	3,45E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-5,93E-10	3,41E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-2,02E-10	3,47E-08	4,20E-10	3,18E-09	2,25E-10	0,00	-2,02E-10
Human toxicity, non-cancer effects	CTUe	1,74E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-4,21E-09	1,73E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-1,43E-09	1,74E-06	7,87E-09	1,03E-07	4,89E-09	0,00	-1,43E-09
Land use related impact/S oil quality	Pt	1,18E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-1,97E+01	1,17E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-6,71E+00	1,18E+03	2,36E+00	8,63E+01	2,33E+00	0,00	-6,71E+00

Additional information

For modules other than A1-A3, scenario-based information shall be declared.

End-of-Life stage

Table 6. Scenario based information for end-of-life

Processes	Unit (per declared unit)	Scenario for C1-C4
Collection process specified by type	Kg collected separately	1000
	Kg collected with mixed construction waste	0
Recovery system specified by type	Kg for re-use	0
	Kr for recycling	300
	Kg for energy recovery	0
Disposal specified by type	Kg product or material for final disposal	700
Assumptions for scenario development, e.g. transportation	Units as appropriate	50 km to recycling of RAP is assumed

Deconstruction and demolition

Paved asphalt is removed by digging or milling. The technology used varies for each individual case. Digging is carried out by excavators and milling is carried out by asphalt cutters. It is assumed that all paved asphalt could be removed and that the machinery used are diesel-powered.

Waste processing and disposal

The recycling process is modelled in SimaPro using a 30% recovery rate of the asphalt. 30% has been used because it is the most common maximum rate of RAP to include in the production of asphalt mixture. It is then also assumed that the remaining 70% is placed in landfills.

Resource recovery

The reuse, recovery, recycling potential is calculated in accordance with Annex D in EN 15804:2012+A2:2019 using e-module D1. Because of the different inputs of RAP in the different types of asphalt mixtures, several different scenarios have been modelled in SimaPro. More detailed description of the calculation is described in the LCA report.

Differences versus previous versions

There are no previous versions of this EPD.

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