Environmental Product Declaration

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

SubFloor System

from

Prästängen Sverige AB

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	S-P-05445
Publication date:	2023-03-03
Valid until:	2028-03-03

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

Accountabilities for PCR, LCA and independent, third-party verification
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)2019
PCR 2019:14 Construction products (EN 15804:A2) (1.11) 2020-01
PCR review was conducted by: The Technical Committee of the International EPD® System. Chair: Claudia A. Peña 2020-09-17. Contact via info@environdec.com
Life Cycle Assessment (LCA)
LCA accountability: Freelance consultant: Fredrik Broberg
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ EPD verification by individual verifier Third-party verifier: David Althoff Palm, Ramboll Sweden AB/ Dalemarken AB Approved by: The International EPD® System
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:
Prästängen Sverige AB

Contact: Jens Ljungkvist

Description of the organisation: Prästängen Sverige AB manufactures subfloor systems for homes, offices, schools, and public buildings.
Many substrates are uneven due to rough cast concrete and settlements. When renovating, SubFloor solves these challenges in a simple way. With a dry and fast installation work with laser precision, the floor ends up at the right height.
A big advantage of fixed floors is that you get it exactly as even and neat as you want. The air gap that is formed is also a perfect space for pulling and hiding installations.
The smart solution is that the floor joists are held up with adjustable screws that provide a precise height to eliminate the unevenness and level differences found in the substrate. A floor chipboard is mounted on top of the joists and then you are free to choose exactly the surface layer you have in mind for the room. Parquet, laminate and plastic carpet and, together with plaster/putty, also tiles.

Product-related or management system-related certifications: FSC Chain of Custody, Nordic Ecolabel, EU Ecolabel, Sunda Hus, Basta and Byggvarubedömningen. The product is also certified and monitored by RISE Institute, certification nr: SC0692-17

Name and location of production site(s):
Prästängen Logistikcentrum
Fabriksgatan
543 50 Tibro
Sweden

Product information

Product name: SubFloor System
Product description:

Property	Value
Size	1m2
Weight per m2	3,44Kg

Subfloor system is wooden bars with plastic support for flooring. Many substrates are uneven due to rough cast concrete and settlements. When renovating, SubFloor solves these challenges in a simple way. With a dry and fast installation work with laser precision, the floor ends up at the right height.

DESCRIPTION OF PRODUCTION ACTIVITIES
The bars are delivered in requierd length by truck to Prästängen production site. The bars are then drilled and packed in a bundle together with screws for each project with plastic film.
The production waste is collected and sent to a waste treatment facility where it's sorted and recycled according to general Swedish conditions.

UN CPC code: 31101 Wood, sawn or chipped lengthwise, sliced or peeled, of a thickness exceeding 6 mm, of coniferous wood

Geographical scope: Sweden

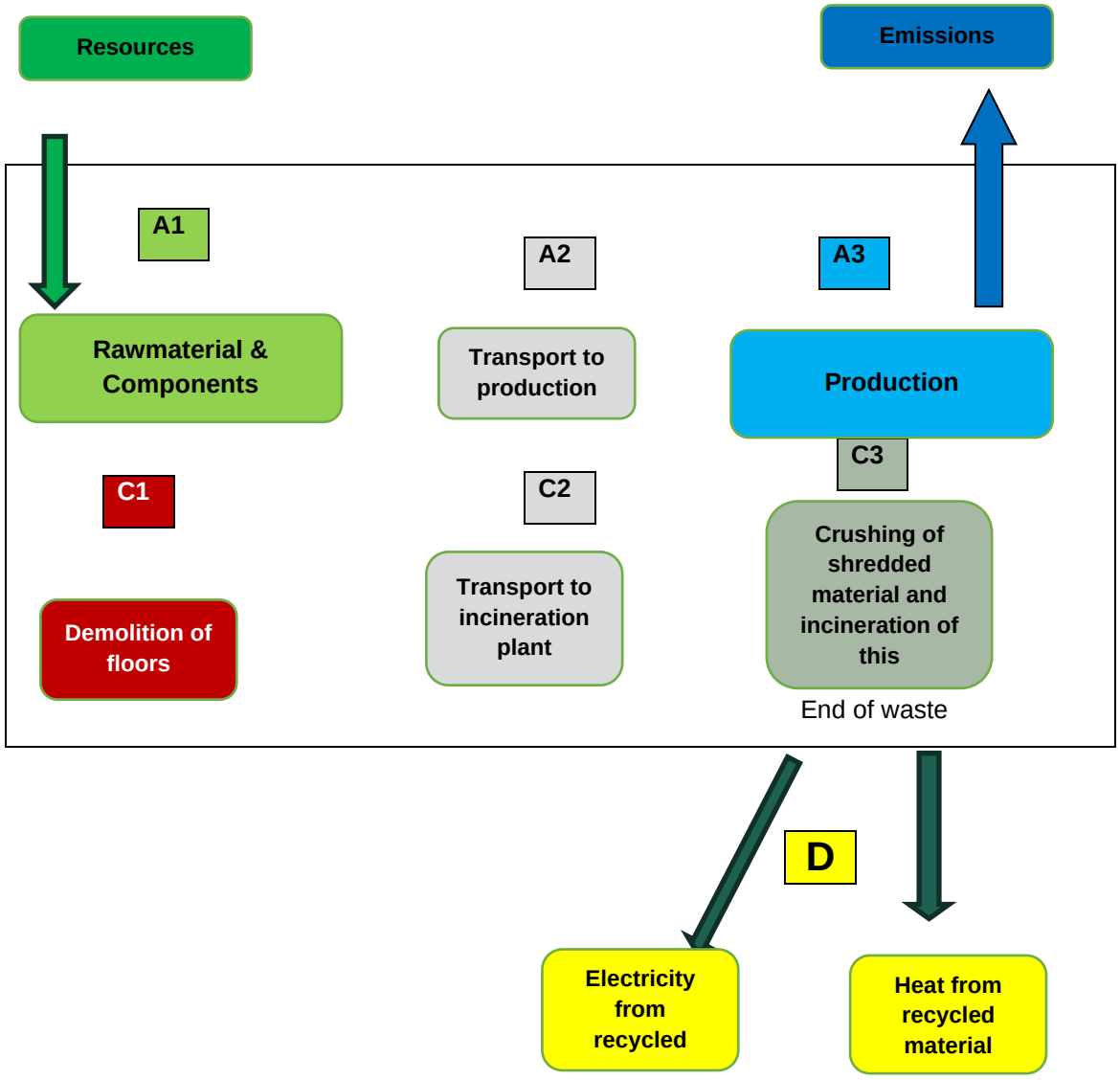
LCA information

Declared unit:
1m^2 SubFloor System

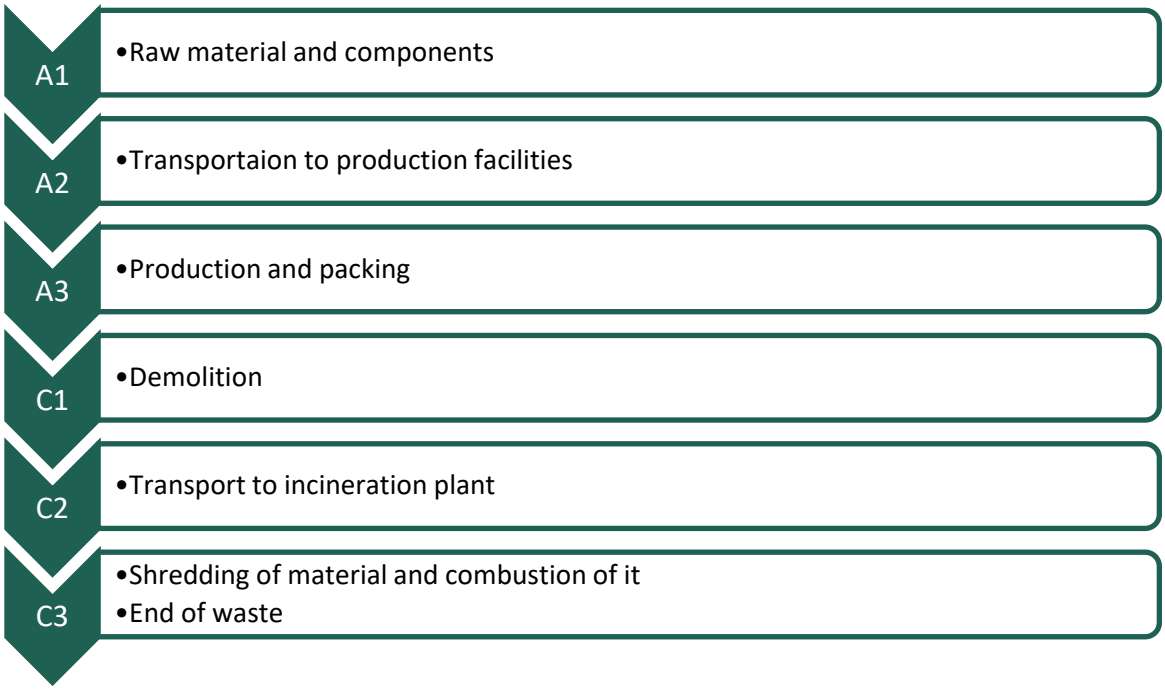
Time representativeness: Data were collected by Prästängen AB and are representative of 2021 manufacturing. All used datasets are currently valid

- **Database(s) and LCA software used:** Database used is GaBi Professional 10.6.29.

Description of system boundaries:
Type of EPD: cradle to gate, with modules C1-C4-D



System diagram:



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More information:

Website: https://subfloor.se/

Allocation:
No allocation is made in the study as the process does not share any flow with other goods.

Cut-Off criteria
Material and energy flows less than 1% per module. .>99,9% of all flows are included.

Type of EPD:
Specific

List of assumptions:
Assumption to knock down 1/m2 floor, 1 minute. Distance to waste treatment plant, is set to be 100 km.
Assumptions the collected goods is mixed with construction waste. All of floor rule 3.44Kg goes to energy recovery

Electricity dataset in A:3
Electricity from hydro power- 0,014kg Co2/Kwh
Electricity from nuclear – 0,0037Kg Co2/Kwh

SE

Modules declared, geographical scope, and data variation:

	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	SE	SE										EU-28	SE	SE	SE	SE
Specific data used	0	>90%	>90%	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Wood	2,96		100
Glas Fiber	0,13		
Polypropylene	0,11		
Thermoplastic Polyuruthane	0,09		
Polyamide	0,12		
TOTAL	3,41		95
Packaging materials	Weight, kg	Weight-% (versus the product)	
Plastic film	**0,0355**	**1,1**	
…			
TOTAL	0,0355	1,1	

Environmental Information

The LCIA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks.

Potential environmental impact – mandatory indicators according to EN 15804 per declared unit 1/m^2

Indicator	Unit	A1	A2	A3	Tot.A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO2 eq.	1,69E+00	2,58E-01	1,15E-01	2,06E+00	2,23E-03	4,24E-02	1,01E+00	0,00+00	-2,86E+00
GWP-biogenic	kg CO2 eq.	-4,68E+00	7,15E-03	1,78E-04	-4,67E+00	0,00+00	4,98E-05	4,68E+00	0,00+00	-7,22E-03
GWP-luluc	kg CO2 eq.	1,33E-03	1,83E-03	2,26E-05	3,18E-03	1,45E-05	2,92E-04	3,21E-05	0,00+00	-3,26E-04
GWP-total	kg CO2 eq.	-2,99E+00	2,67E-01	1,15E-01	-2,61E+00	2,24E-03	4,27E-02	5,69E+00	0,00E+00	-2,96E+00
ODP	kg CFC 11 eq.	3,60E-08	2,66E-14	5,05E-13	3,60E-08	2,11E-16	4,26E-15	1,05E-12	0,00+00	-4,53E-14
AP	mol H+ eq.	5,89E-03	2,97E-03	1,61E-04	9,02E-03	1,08E-05	4,68E-04	1,16E-03	0,00+00	-4,14E-03
EP-freshwater	kg PO43- eq.	8,75E-05	2,90E-06	1,90E-08	9,04E-05	2,66E-09	4,69E-07	7,06E-07	0,00+00	-1,80E-03
EP-freshwater	kg P eq.	6,03E-05	9,69E-07	2,97E-07	6,16E-05	7,66E-09	1,55E-07	2,39E-07	0,00+00	-6,13E-06
EP-marine	kg N eq.	1,62E-03	1,50E-03	5,25E-05	3,17E-03	5,04E-06	2,36E-04	3,16E-04	0,00+00	-1,43E-03
EP-terrestrial	mol N eq.	6,60E-01	1,65E-02	5,44E-04	6,77E-01	5,59E-05	2,60E-03	5,56E-03	0,00+00	-1,64E-02
POCP	kg NMVOC eq.	5,07E-03	2,80E-03	2,33E-04	8,10E-03	1,41E-05	4,42E-04	8,34E-04	0,00+00	-3,71E-03
ADP-minerals&metals*	kg Sb eq.	6,20E-06	2,73E-08	2,58E-08	6,25E-06	2,16E-10	4,37E-09	2,54E-08	0,00+00	-7,67E-08
ADP-fossil*	MJ	3,79E+01	3,56E+00	4,56E+00	4,61E+01	2,82E-02	5,69E-01	1,66E+00	0,00+00	-1,53E+01
WDP	m3	6,11E+00	3,04E-03	1,33E-02	6,13E+00	2,40E-05	4,85E-04	6,57E-01	0,00+00	-7,20E-01

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 GWP-GHG – additional mandatory and voluntary indicators, per declared unit 1/m2

Results per declared unit										
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG[1]	kg CO_2 eq.	1,65E+00	2,56E-01	1,13E-01	2,02+00	2,16E-03	4,11E-02	9,87E-01	0,00E+00	-2,78E+00

Disclaimers shall be added, if required by EN 15804.

Use of resources, per declared unit 1/m2

Results per declared unit										
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	9,91E+00	2,47E-01	1,21E+00	1,14E+01	1,95E-03	3,94E-02	4,90E-01	0,00+00	-4,81E+01
PERM	MJ	4,11E+00	0,00+00	0,00+00	4,11E+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00
PERT	MJ	1,40E+01	2,47E-01	1,21E+00	1,55E+01	1,95E-03	3,94E-02	4,90E-01	0,00+00	-4,81E+01
PENRE	MJ	3,82E+01	3,58E+00	4,56E+00	4,63E+01	2,83E-02	5,71E+01	1,66E+00	0,00+00	-1,53E+01
PENRM	MJ	0,00+00	0,00+00	0,00+00	0,00E+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00
PENRT	MJ	3,82E+01	3,58E+00	4,56E+00	4,63E+01	2,83E-02	5,71E-01	1,66E+00	0,00+00	-1,53E+01
SM	kg	0,00+00	0,00+00	0,00+00	0,00E+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00
RSF	MJ	0,00+00	0,00+00	0,00+00	0,00E+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00
NRSF	MJ	0,00+00	0,00+00	0,00+00	0,00E+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00
FW	m^3	3,59E-01	2,85E-04	3,62E-03	3,63E-01	2,25E-06	4,85E-04	1,55E+00	0,00+00	-1,74E-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

Waste production, per declared unit 1/m2

Results per declared unit										
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste disposed	kg	5,07E-04	1,89E-11	2,80E-10	5,07E-04	1,50E-13	3,02E-12	1,71E-10	0,00+00	-3,26E-09
Non-hazardous waste disposed	kg	1,58E-01	5,83E-04	1,45E-03	1,60E-01	4,60E-06	9,31E-05	1,29E-01	0,00+00	-4,88E-01
Radioactive waste disposed	kg	1,12E-03	6,64E-06	7,68E-04	1,89E-03	5,25E-08	1,06E-06	5,42E-05	0,00+00	-1,09E-04

Output flows

Output flows per declared unit 1/m2

Results per declared unit										
Indicator	**Unit**	**A1**	**A2**	**A3**	**Tot.A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
Components for re-use	kg	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00
Material for recycling	kg	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00
Materials for energy recovery	kg	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00
Exported energy, electricity	MJ	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	8,20+00	0,0+00	-8,20+00
Exported energy, thermal	MJ	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	0,00+00	1,92+01	0,0+00	-1,92E+01

Information on biogenic carbon content

Results per declared unit 3,36Kg/m2		
BIOGENIC CARBON CONTENT	**Unit**	**QUANTITY**
Biogenic carbon content in product	kg C	1,28

Biogenic carbon content in packaging	kg C	0

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2.

References

GENERAL PROGRAMME INSTRUCTIONS FOR THE INTERNATIONAL EPD® SYSTEM VERSION 3.11

PCR 2019:14 Construction products (EN 15804:A2) (1.11) 2021-02-05

PCR review was conducted by: The Technical Committee of the International EPD® System. Chair: Claudia A. Peña. Contact via info@environdec.com

EN 15804+A2 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.

Data for separate collection and recycling of dry recyclable materials, Carolina Liljenström and Göran Finnveden

Livscykelanalys Subfloor Golvregelsystem, by Fredrik Broberg 2023-01

EPD Svenskt Trä 2022-01-22 S-P-02537

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