Environmental Product Declaration

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

Maxwood

from Golvabia



Programme:	The International EPD [®] System, <u>www.environdec.com</u>
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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



ECO PLATFORM





General information

Programme information

Programme:	The International EPD [®] System
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Accountabilities for PCR, LCA and independent, third-party verification

Product Category Rules (PCR)

CEN standard EN 15804 serves as the Core Product Category Rules (PCR)

Product Category Rules (PCR): Product category rules (PCR): PCR 2019:14 Construction products (EN 15804+A2) (1.3.1) and c-PCR-006 Wood and wood-based products for use in construction (EN 16485:2014)

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

Life Cycle Assessment (LCA)

LCA accountability: Sofia Lindroth, Miljögiraff

Third-party verification

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:

□ EPD verification by individual verifier

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Third-party verifier: Hudai Kara PhD, Metsims Sustainability Consulting, 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 registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same 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 equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.





Company information

<u>Owner of the EPD:</u> Golvabia AB. Långgatan 10, 334 33 Anderstorp <u>Contact:</u> Josefin Nilsson <u>Josefin.Nilsson@Golvabia.se</u> & Roger Davidsson

Quite a few years have gone by since Golvabia's founding in Anderstorp, Sweden in 1949. But we are still right here in Anderstorp - offices, warehouse and factory. The family behind the company has grown as well, and Golvabia is now run by the third generation of passionate flooring entrepreneurs.

At Golvabia, knowledge, quality and design go hand in hand. We don't follow fleeting trends. We believe in long-term thinking when it comes to design and supplying durable floors that become a part of your daily life. Our floors are produced by experienced professionals with deep knowledge of wood as a raw material and flooring as a product. This guarantees you high-quality wood floors that you can enjoy for many years to come. We have stringent quality demands and have inherited a deep respect for the forest as a raw material. We are quality certified ISO 9001 and environmentally certified according to ISO 14001.



Our wide range of products includes flooring materials that correspond to different requirements, situations and tastes. All of our floors are very easy to lay with the 5G® click system.

<u>Product-related or management system-related certifications:</u> ISO 9001 certified, ISO14001certified, FSC certified, Nordic Ecolable certified. Name and location of production site(s): Golvabia, Anderstorp



Product information

Product name: Maxwood

<u>Product description</u>: Our exclusive wood floor with a wood feel that's clear in the pattern, surface and format. The beautiful appearance is complemented with a comfortable cork backing. The perfect choice for a more challenging environment as we use eight layers of UV acrylic finish.

<u>Geographical scope:</u> A1-A2 modules are modelled with a European scope. A3-C4 modules are modelled with a Swedish scope.

LCA information

<u>Functional unit / declared unit:</u> 1 m2 floor. 1 m2 Maxwood has the weight 7,6 kg. <u>Reference service life:</u> 25 years

<u>Time representativeness</u>: Data for the results were collected in 2023 and are mainly based on statistics for 2022.

Database(s) and LCA software used: ecoinvent 3.9.1, SimaPro

Description of system boundaries:

The system boundary for this EPD is cradle to gate with options (A1-A3), modules C1–C4, module D and additional modules (A4 and/or A5 and/or B1-B7). More specifically, modules A1-A5, C1-C4, and D are considered. The PCR requires that benefits and loads outside of the system boundary is calculated (D module). However, as it is outside of the system boundary, it is reported separately and shall not be summed up with the rest of the results.



System diagram:

<u>More information:</u> Golvabia produces their floors in Anderstorp. A Swedish distribution scenario has been applied since most of the customers are on a Swedish market.

The electricity used for Golvabia's manufacturing is from Gislaved Energi and is 100% renewable, GWP-GHG 0,027 kg CO2 eq/kWh.





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

	Pro	duct sta	age	proc	ruction cess ige	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	В3	B4	В5	B6	B7	C1	C2	C3	C4	D
Modules declared	х	х	х	х	Х	ND	ND	ND	ND	ND	ND	ND	х	х	х	х	х
Geography	EUR	EUR	SE	SE	SE								SE	SE	SE	SE	
Specific data used		>90%				-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	N	o variatio	on			-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	N	o variatic	on			-	-	-	-	-	-	-	-	-	-	-	-

Disclaimers about results for the environmental impact.

- 1. Note that the LCIA results are relative expressions, which means that they do not predict impacts on category endpoints or the exceeding of thresholds, safety margins or risk.
- 2. "Ionising Radiation" This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of 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 ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.
- 3. Abiotic resources (elements and fossil fuels) 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 experienced with the indicator.

Content information

Product components	Weight, g	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Surface treatment	80-100	0%	0% resp 0 kg C
Wear layer	300	0%	100% resp 0,13 kg C
Medium material	6750	0%	79% resp 2,35 kg C
Bottom material	140	0%	100% resp 0,06 kg C
Backing	175	0%	100% resp 0,08 kg C
Paste	130	0%	0% resp 0 kg C
Glue	<2	0%	0% resp 0 kg C
TOTAL	7590	0%	78% resp 2,62 kg C
Packaging materials	Weight, g	Weight-% (versus the product)	Weight biogenic carbon, kg C/kg
Wooden pallet	6	< 1%	< 1 kg C
Banner	26	< 1%	0 kg C
Plastic	14	< 1%	0 kg C
TOTAL	46	< 1%	< 1 kg C

The product does not exceed 0,1% of the weight of the product for any dangerous substances from the candidate list of SVHC for Authorisation

Information on biogenic carbon content

Results per functional or declared unit									
BIOGENIC CARBON CONTENT	Unit	QUANTITY							
Biogenic carbon content in product	kg C	2,62							
Biogenic carbon content in packaging	kg C	0,01							

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



Results of the environmental performance indicators

Mandatory impact category indicators according to EN 15804

	Results per 1 m2 floor											
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D			
GWP-fossil	kg CO ₂ eq.	9,23E+00	3,51E-01	3,35E-02	0,00E+00	1,13E+00	7,01E-02	0,00E+00	-3,48E-01			
GWP-biogenic	kg CO ₂ eq.	-1,23E+01	3,21E-04	4,96E-02	0,00E+00	3,86E-04	1,23E+01	0,00E+00	-1,28E-02			
GWP- luluc	kg CO ₂ eq.	1,30E-01	1,73E-04	1,25E-06	0,00E+00	9,90E-05	2,37E-05	0,00E+00	-3,98E-02			
GWP- total	kg CO ₂ eq.	-2,91E+00	3,51E-01	8,31E-02	0,00E+00	1,13E+00	1,24E+01	0,00E+00	-4,01E-01			
ODP	kg CFC 11 eq.	1,17E-07	7,63E-09	3,49E-10	0,00E+00	2,02E-08	3,43E-09	0,00E+00	-8,46E-09			
AP	mol H⁺ eq.	6,27E-02	7,66E-04	2,09E-05	0,00E+00	5,28E-03	2,32E-03	0,00E+00	-1,92E-03			
EP-freshwater	kg P eq.	7,01E-03	2,49E-05	3,85E-07	0,00E+00	1,66E-05	4,52E-05	0,00E+00	-1,50E-04			
EP- marine	kg N eq.	1,45E-02	1,93E-04	1,05E-05	0,00E+00	2,51E-03	1,19E-03	0,00E+00	-6,98E-04			
EP-terrestrial	mol N eq.	1,51E-01	1,96E-03	1,01E-04	0,00E+00	2,71E-02	1,25E-02	0,00E+00	-6,44E-03			
POCP	kg NMVOC eq.	5,13E-02	1,19E-03	2,63E-05	0,00E+00	1,18E-02	3,32E-03	0,00E+00	-1,51E-03			
ADP- minerals&metals*	kg Sb eq.	2,57E-05	1,15E-06	6,40E-09	0,00E+00	6,31E-07	1,68E-07	0,00E+00	-2,19E-06			
ADP-fossil*	MJ	1,27E+02	4,98E+00	1,28E-02	0,00E+00	1,34E+01	7,12E-01	0,00E+00	-6,96E+01			
WDP*	m ³	1,48E+01	2,05E-02	6,68E-04	0,00E+00	2,39E-02	1,93E-02	0,00E+00	-8,37E-01			
	GWP-fossil =	Global Warmi	ng Potential f	ossil fuels: G\	NP-biogenic =	Global Warn	ning Potential	biogenic: GW	/P-luluc =			

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.



golvabia

Additional mandatory and voluntary impact category indicators

	Results per 1 m2 floor											
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D			
GWP-GHG ¹	kg CO ₂ eq.	1,22E-06	2,61E-08	1,56E-10	0,00E+00	1,36E-07	1,89E-08	0,00E+00	-3,58E-08			
РМ	disease inc.	7,88E-01	6,74E-03	8,98E-05	0,00E+00	6,10E-03	2,05E-03	0,00E+00	-5,05E+00			
IR	kBq U-235 eq	5,24E+01	2,47E+00	1,40E-01	0,00E+00	5,75E+00	9,56E-01	0,00E+00	-1,43E+00			
ETP – FW	CTUe	9,86E-09	1,60E-10	1,69E-11	0,00E+00	1,35E-10	2,22E-09	0,00E+00	-3,99E-10			
HTP - C	CTUh	1,04E-07	3,53E-09	9,03E-11	0,00E+00	2,74E-09	4,33E-09	0,00E+00	-6,62E-09			
HTP - NC	CTUh	1,07E+03	3,01E+00	3,65E-03	0,00E+00	1,41E+00	2,43E-01	0,00E+00	-1,65E+01			
Land use, SQP	Pt	1,22E-06	2,61E-08	1,56E-10	0,00E+00	1,36E-07	1,89E-08	0,00E+00	-3,58E-08			

Additional voluntary indicators e.g. the voluntary indicators from EN 15804 or the global indicators according to ISO 21930:2017

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 CO_2 is set to zero.





Resource use indicators

	Results per 1 m2 floor											
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D			
PERE	MJ	229,85	0,08	0,00	0,00	0,07	0,03	0,00	-30,92			
PERM	MJ	132,82	0,00	-0,52	0,00	0,00	-132,30	0,00	0,00			
PERT	MJ	362,67	0,08	-0,52	0,00	0,07	-132,26	0,00	-30,92			
PENRE	MJ	84,96	5,29	0,01	0,00	14,29	0,77	0,00	-69,78			
PENRM	MJ	50,81	0,00	-0,43	0,00	0,00	-50,37	0,00	0,00			
PENRT	MJ	135,77	5,29	-0,42	0,00	14,29	-49,60	0,00	-69,78			
SM	kg	0,00	0,00	0,00	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			
NRSF	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00			
FW	m ³	0,08	0,001	0,000	0,000	0,001	0,008	0,000	-0,018			
	PERE = Use of	renewable pri	mary energy	excluding ren	ewable prima	ry energy reso	ources used a	s raw materia	lls; PERM =			

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; PENRT = Total use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources used as raw material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water





Waste indicators

Results per 1 m2 floor												
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D			
Hazardous waste disposed	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00			
Non-hazardous waste disposed	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00			
Radioactive waste disposed	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00			

Output flow indicators

Results per 1 m2												
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D			
Components for re- use	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00			
Material for recycling	kg	0,00	0,00	0,02	0,00	0,00	1,05	0,00	0,00			
Materials for energy recovery	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00			
Exported energy, electricity	MJ	0,00	0,00	0,16	0,00	0,00	39,89	0,00	0,00			
Exported energy, thermal	MJ	0,00	0,00	0,36	0,00	0,00	93,09	0,00	0,00			





References

General Programme Instructions of the International EPD® System. Version 4.0.

PCR 2019:14. Construction products. Version 1.3.1

c-PCR-006. Wood and wood-based products for use in construction (EN 16485:2014). Version 2019-12-20

ISO 14025:2006, Environmental labels and declarations – Type III environmental declarations – Principles and procedures.

ISO 14040:2006, Environmental management — Life cycle assessment — Principles and framework. ISO 14044:2006, Environmental management — Life cycle assessment — Requirements and guidelines (pp. 1–54).

Life Cycle Assessment of flooring from Golvabia, Miljögiraff, 2023.

