

# Environmental Product Declaration



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

## Lightwood

from

**Golvabia**



Programme:

The International EPD® System, [www.environdec.com](http://www.environdec.com)

Programme operator:

EPD International AB

EPD registration number:

S-P-08161

Publication date:

2024-01-19

Valid until:

2029-01-18


*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](http://www.environdec.com)*



## General information

### Programme information

<b>Programme:</b>	The International EPD® System
<b>Address:</b>	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
<b>Website:</b>	<a href="http://www.environdec.com">www.environdec.com</a>
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<b>Accountabilities for PCR, LCA and independent, third-party verification</b>
<b>Product Category Rules (PCR)</b>
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 <a href="mailto:info@environdec.com">info@environdec.com</a>
<b>Life Cycle Assessment (LCA)</b>
LCA accountability: Sofia Lindroth, Miljögiraff
<b>Third-party verification</b>
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:  <input type="checkbox"/> EPD verification by individual verifier
Third-party verifier: <i>Hudai Kara PhD, Metsims Sustainability Consulting,</i> 
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

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

Owner of the EPD: Golvabia AB. Långgatan 10, 334 33 Anderstorp

Contact: Josefin Nilsson [Josefin.Nilsson@Golvabia.se](mailto:Josefin.Nilsson@Golvabia.se) & 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.

Product-related or management system-related certifications: ISO 9001 certified, ISO14001certified, FSC certified, Nordic Ecolable certified.

Name and location of production site(s): Golvabia, Anderstorp



**Product information**

Product name: Lightwood

Product description: A floor made of real wood with the beauty and comfort of nature. The latest click joint, makes Lightwood quick and easy to install. Suits any interior residential or commercial space where modern design and durability are an important detail.

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

**LCA information**

Functional unit / declared unit: 1 m2 floor. 1 m2 Lightwood has the weight 7,4 kg.

Reference service life: 25 years

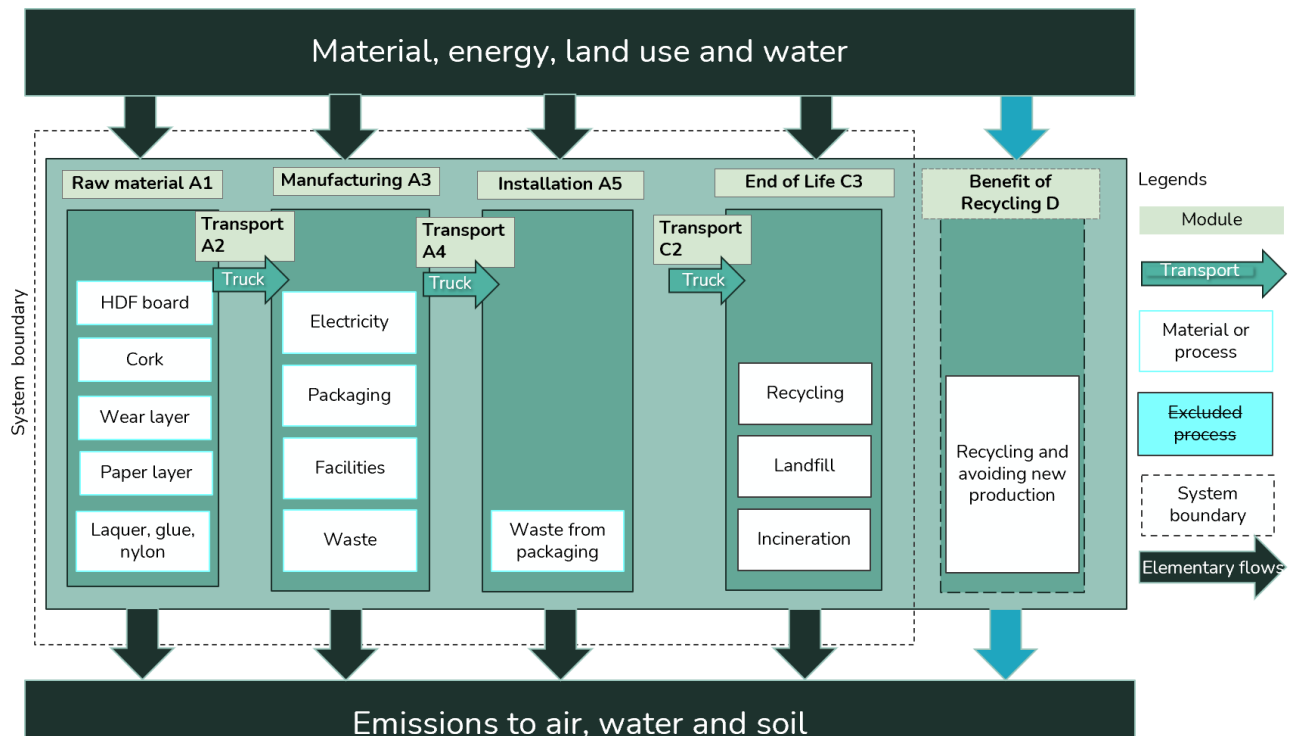
Time representativeness: Data for the results were collected in 2023 and are mainly based on statistics for 2022.

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:



More information: Golvia 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 Golvia’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):

	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	X	X	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	EUR	EUR	SE	SE	SE								SE	SE	SE	SE	
Specific data used	>90%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	No variation					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	No variation					-	-	-	-	-	-	-	-	-	-	-	-

Disclaimers about results for the environmental impact.

- 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.
- “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.
- 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/product or declared unit
Surface treatment	70-80	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
Paste	130	0%	0% resp 0 kg C
Glue	<2	0%	0% resp 0 kg C
TOTAL	7400	0%	78% resp 2,54 kg C
Packaging materials	Weight, g	Weight-% (versus the product)	Weight biogenic carbon, kg C/ product or declared unit
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 1 m2 floor		
BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	2,54
Biogenic carbon content in packaging	kg C	0,01

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## 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 <sub>2</sub> eq.	<b>8,92E+00</b>	3,42E-01	3,35E-02	0,00E+00	1,10E+00	6,84E-02	0,00E+00	-3,40E-01
GWP-biogenic	kg CO <sub>2</sub> eq.	<b>-1,19E+01</b>	3,13E-04	4,96E-02	0,00E+00	3,77E-04	1,19E+01	0,00E+00	-1,22E-02
GWP-luluc	kg CO <sub>2</sub> eq.	<b>1,29E-01</b>	1,69E-04	1,25E-06	0,00E+00	9,65E-05	2,31E-05	0,00E+00	-3,88E-02
GWP-total	kg CO <sub>2</sub> eq.	<b>-2,86E+00</b>	3,42E-01	8,31E-02	0,00E+00	1,10E+00	1,20E+01	0,00E+00	-3,91E-01
ODP	kg CFC 11 eq.	<b>1,10E-07</b>	7,44E-09	3,49E-10	0,00E+00	1,97E-08	3,35E-09	0,00E+00	-8,26E-09
AP	mol H <sup>+</sup> eq.	<b>6,08E-02</b>	7,47E-04	2,09E-05	0,00E+00	5,15E-03	2,26E-03	0,00E+00	-1,87E-03
EP-freshwater	kg P eq.	<b>6,93E-03</b>	2,43E-05	3,85E-07	0,00E+00	1,62E-05	4,41E-05	0,00E+00	-1,46E-04
EP-marine	kg N eq.	<b>1,40E-02</b>	1,88E-04	1,05E-05	0,00E+00	2,45E-03	1,16E-03	0,00E+00	-6,81E-04
EP-terrestrial	mol N eq.	<b>1,47E-01</b>	1,92E-03	1,01E-04	0,00E+00	2,65E-02	1,22E-02	0,00E+00	-6,28E-03
POCP	kg NMVOC eq.	<b>4,95E-02</b>	1,16E-03	2,63E-05	0,00E+00	1,15E-02	3,24E-03	0,00E+00	-1,47E-03
ADP-minerals&metals*	kg Sb eq.	<b>2,38E-05</b>	1,12E-06	6,40E-09	0,00E+00	6,15E-07	1,63E-07	0,00E+00	-2,13E-06
ADP-fossil*	MJ	<b>1,22E+02</b>	4,85E+00	1,28E-02	0,00E+00	1,31E+01	6,94E-01	0,00E+00	-6,78E+01
WDP*	m <sup>3</sup>	<b>1,46E+01</b>	2,00E-02	6,68E-04	0,00E+00	2,33E-02	1,88E-02	0,00E+00	-8,16E-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.

## 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 <sup>1</sup>	kg CO <sub>2</sub> eq.	9,12E+00	3,42E-01	3,35E-02	0,00E+00	1,10E+00	7,49E-02	0,00E+00	-3,86E-01
PM	disease inc.	1,17E-06	2,55E-08	1,56E-10	0,00E+00	1,33E-07	1,84E-08	0,00E+00	-3,49E-08
IR	kBq U-235 eq	7,67E-01	6,57E-03	8,98E-05	0,00E+00	5,95E-03	2,00E-03	0,00E+00	-4,93E+00
ETP – FW	CTUe	5,03E+01	2,40E+00	1,40E-01	0,00E+00	5,60E+00	9,32E-01	0,00E+00	-1,40E+00
HTP - C	CTUh	8,67E-09	1,56E-10	1,69E-11	0,00E+00	1,32E-10	2,16E-09	0,00E+00	-3,89E-10
HTP - NC	CTUh	1,01E-07	3,45E-09	9,03E-11	0,00E+00	2,68E-09	4,22E-09	0,00E+00	-6,45E-09
Land use, SQP	Pt	1,00E+03	2,93E+00	3,65E-03	0,00E+00	1,37E+00	2,37E-01	0,00E+00	-1,61E+01

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

<sup>1</sup> 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<sub>2</sub> 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	<b>205,53</b>	0,08	0,00	0,00	0,07	0,03	0,00	-30,16
PERM	MJ	<b>129,49</b>	0,00	-0,52	0,00	0,00	-128,97	0,00	0,00
PERT	MJ	<b>335,02</b>	0,08	-0,52	0,00	0,07	-128,94	0,00	-30,16
PENRE	MJ	<b>79,35</b>	5,16	0,01	0,00	13,89	0,75	0,00	-68,00
PENRM	MJ	<b>50,81</b>	0,00	-0,43	0,00	0,00	-50,37	0,00	0,00
PENRT	MJ	<b>130,15</b>	5,16	-0,42	0,00	13,89	-49,62	0,00	-68,00
SM	kg	<b>0,00</b>	0,00	0,00	0,00	0,00	0,00	0,00	0,00
RSF	MJ	<b>0,00</b>	0,00	0,00	0,00	0,00	0,00	0,00	0,00
NRSF	MJ	<b>0,00</b>	0,00	0,00	0,00	0,00	0,00	0,00	0,00
FW	m <sup>3</sup>	<b>0,08</b>	0,001	0,000	0,000	0,001	0,008	0,000	-0,017
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 indicators

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

## Output flow indicators

Results per 1 m2 floor									
Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
Components for re-use	kg	<b>0,00</b>	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Material for recycling	kg	<b>0,00</b>	0,00	0,02	0,00	0,00	1,05	0,00	0,00
Materials for energy recovery	kg	<b>0,00</b>	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Exported energy, electricity	MJ	<b>0,00</b>	0,00	0,16	0,00	0,00	39,10	0,00	0,00
Exported energy, thermal	MJ	<b>0,00</b>	0,00	0,36	0,00	0,00	91,22	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 Golvia, Miljögraff, 2023.

