Environmental Product Declaration





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

Maxwear

from

Golvabia



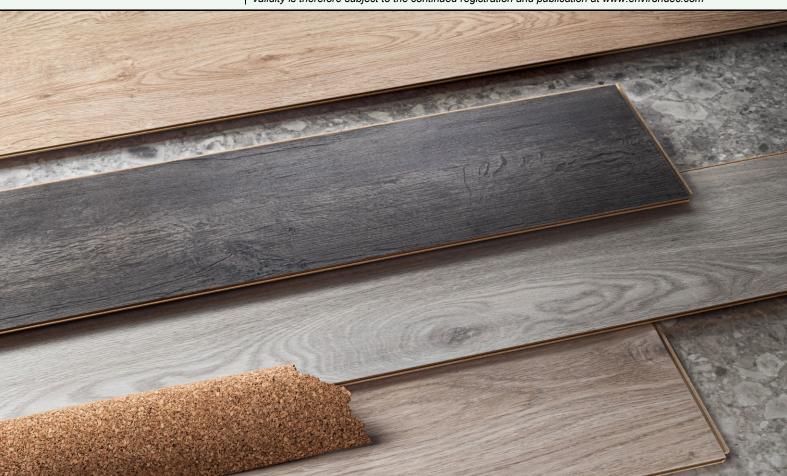
Programme: The International EPD® System, <u>www.environdec.com</u>

Programme operator: EPD International AB

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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







General information

Programme information

| Programme: | The International EPD® System |
|------------|-------------------------------|
| | EPD International AB |
| Address: | Box 210 60 |
| Address. | SE-100 31 Stockholm |
| | Sweden |
| Website: | www.environdec.com |
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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-004 Resilient, textile and laminate floor coverings (EN 16810) |
| 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 |
| 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 |

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 & 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: Maxwear

<u>Product description:</u> Our proprietary floor material Maxwear is an attractive combination of soft feel and exceptional durability. A surface layer of hardened vinyl on High Density Fiberboard (HDF) wood board. Different layers build up the floor for optimal comfort and also with a comfortable cork backing.

<u>Geographical scope:</u> 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 Maxwear has the weight 8,6 kg.

Reference service life: 25 years

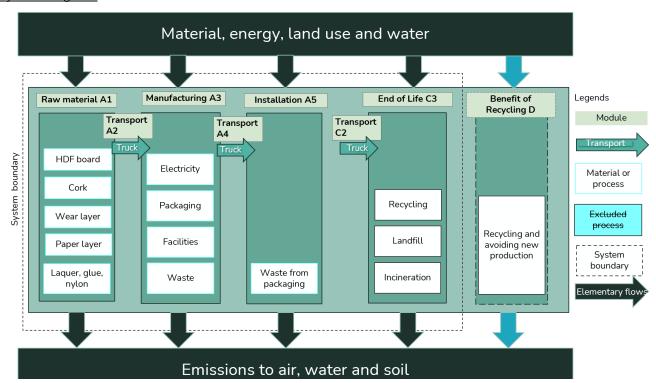
<u>Time representativeness:</u> Data for the results were collected in 2023 and are mainly based on statistics for 2022.

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 st | age | prod | 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 | A 1 | A2 | А3 | A4 | A 5 | В1 | B2 | В3 | В4 | В5 | В6 | В7 | C1 | C2 | С3 | 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 variatio | on | | | 1 | - | - | - | 1 | 1 | - | 1 | - | - | - | - |

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 | 8-10 | 0% | 0% resp 0 kg C |
| Wear layer | 1480 | 0% | 0% resp 0 kg C |
| Medium material | 6750 | 0% | 79% resp 2,35 kg C |
| Bottom material | 120 | 0% | 100%, 0,05 kg C |
| Backing | 180 | 0% | 100% resp 0,08 kg C |
| Paste | 90 | 0% | 0% resp 0 kg C |
| TOTAL | 8630 | 0% | 65% resp 2,48 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 1 m2 floor | | | | | | | | | | |
|--------------------------------------|------|----------|--|--|--|--|--|--|--|--|
| BIOGENIC CARBON CONTENT | Unit | QUANTITY | | | | | | | | |
| Biogenic carbon content in product | kg C | 2,48 | | | | | | | | |
| 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

| Wallua | Results per 1 m2 floor | | | | | | | | | | | |
|--------------------------|---|-----------|------------|----------|----------|----------|----------|----------|-----------|--|--|--|
| Indicator | Unit | A1-A3 | A 4 | A5 | C1 | C2 | C3 | C4 | D | | | |
| GWP-fossil | kg CO ₂ eq. | 1,29E+01 | 3,98E-01 | 3,35E-02 | 0,00E+00 | 1,28E+00 | 7,97E-02 | 0,00E+00 | -4,37E-01 | | | |
| GWP-biogenic | kg CO ₂ eq. | -1,17E+01 | 3,65E-04 | 4,96E-02 | 0,00E+00 | 4,38E-04 | 1,18E+01 | 0,00E+00 | -1,94E-02 | | | |
| GWP- luluc | kg CO ₂ eq. | 1,32E-01 | 1,97E-04 | 1,25E-06 | 0,00E+00 | 1,12E-04 | 2,69E-05 | 0,00E+00 | -5,00E-02 | | | |
| GWP- total | kg CO ₂ eq. | 1,37E+00 | 3,99E-01 | 8,31E-02 | 0,00E+00 | 1,28E+00 | 1,18E+01 | 0,00E+00 | -5,07E-01 | | | |
| ODP | kg CFC 11 eq. | 1,92E-06 | 8,68E-09 | 3,49E-10 | 0,00E+00 | 2,29E-08 | 3,90E-09 | 0,00E+00 | -1,06E-08 | | | |
| AP | mol H⁺ eq. | 7,59E-02 | 8,71E-04 | 2,09E-05 | 0,00E+00 | 5,98E-03 | 2,63E-03 | 0,00E+00 | -2,42E-03 | | | |
| EP-freshwater | kg P eq. | 7,94E-03 | 2,83E-05 | 3,85E-07 | 0,00E+00 | 1,88E-05 | 5,14E-05 | 0,00E+00 | -1,89E-04 | | | |
| EP- marine | kg N eq. | 1,70E-02 | 2,20E-04 | 1,05E-05 | 0,00E+00 | 2,84E-03 | 1,35E-03 | 0,00E+00 | -8,75E-04 | | | |
| EP-terrestrial | mol N eq. | 1,84E-01 | 2,23E-03 | 1,01E-04 | 0,00E+00 | 3,07E-02 | 1,42E-02 | 0,00E+00 | -8,09E-03 | | | |
| POCP | kg NMVOC eq. | 6,24E-02 | 1,35E-03 | 2,63E-05 | 0,00E+00 | 1,34E-02 | 3,77E-03 | 0,00E+00 | -1,90E-03 | | | |
| ADP- minerals&metals* | kg Sb eq. | 6,25E-05 | 1,30E-06 | 6,40E-09 | 0,00E+00 | 7,15E-07 | 1,91E-07 | 0,00E+00 | -2,75E-06 | | | |
| ADP-fossil* | MJ | 2,20E+02 | 5,66E+00 | 1,28E-02 | 0,00E+00 | 1,52E+01 | 8,09E-01 | 0,00E+00 | -8,75E+01 | | | |
| WDP* | m ³ | 2,07E+01 | 2,33E-02 | 6,68E-04 | 0,00E+00 | 2,71E-02 | 2,20E-02 | 0,00E+00 | -1,05E+00 | | | |
| 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 ¹ | kg CO ₂ eq. | 1,33E-06 | 2,97E-08 | 1,56E-10 | 0,00E+00 | 1,54E-07 | 2,15E-08 | 0,00E+00 | -4,52E-08 | | | |
| РМ | disease inc. | 1,42E+00 | 7,66E-03 | 8,98E-05 | 0,00E+00 | 6,92E-03 | 2,33E-03 | 0,00E+00 | -6,35E+00 | | | |
| IR | kBq U-235 eq | 6,90E+01 | 2,79E+00 | 1,40E-01 | 0,00E+00 | 6,51E+00 | 1,09E+00 | 0,00E+00 | -1,79E+00 | | | |
| ETP – FW | CTUe | 1,31E-08 | 1,82E-10 | 1,69E-11 | 0,00E+00 | 1,53E-10 | 2,52E-09 | 0,00E+00 | -5,03E-10 | | | |
| HTP - C | CTUh | 1,61E-07 | 4,02E-09 | 9,03E-11 | 0,00E+00 | 3,11E-09 | 4,92E-09 | 0,00E+00 | -8,33E-09 | | | |
| HTP - NC | CTUh | 1,02E+03 | 3,42E+00 | 3,65E-03 | 0,00E+00 | 1,60E+00 | 2,76E-01 | 0,00E+00 | -2,10E+01 | | | |
| Land use, SQP | Pt | 1,33E-06 | 2,97E-08 | 1,56E-10 | 0,00E+00 | 1,54E-07 | 2,15E-08 | 0,00E+00 | -4,52E-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 CO₂ is set to zero.





Resource use indicators

| | Results per 1 m2 floor | | | | | | | | | | | |
|-----------|------------------------|--------|-------|-------|-------|-------|---------------|-------|--------|--|--|--|
| Indicator | Unit | A1-A3 | A4 | A5 | C1 | C2 | СЗ | C4 | D | | | |
| PERE | MJ | 223,57 | 0,09 | 0,00 | 0,00 | 0,08 | 0,04 | 0,00 | -38,93 | | | |
| PERM | MJ | 123,99 | 0,00 | -0,52 | 0,00 | 0,00 | -123,46 | 0,00 | 0,00 | | | |
| PERT | MJ | 347,56 | 0,09 | -0,52 | 0,00 | 0,08 | -123,43 | 0,00 | -38,93 | | | |
| PENRE | MJ | 140,63 | 6,02 | 0,01 | 0,00 | 16,20 | 0,87 | 0,00 | -87,68 | | | |
| PENRM | MJ | 94,64 | 0,00 | -0,43 | 0,00 | 0,00 | -94,21 | 0,00 | 0,00 | | | |
| PENRT | MJ | 235,27 | 6,02 | -0,42 | 0,00 | 16,20 | -93,33 | 0,00 | -87,68 | | | |
| 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 | 0,10 | 0,001 | 0,000 | 0,000 | 0,001 | 0,009 | 0,000 | -0,022 | | | |
| | PERE = Use of | | | | | | ources used a | | | | | |

Acronyms

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 | A 5 | 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

| | | | Result | s per 1 m | 2 floor | | | | |
|-------------------------------|------|-------|--------|-----------|---------|------|--------|------|------|
| Indicator | Unit | A1-A3 | A4 | A5 | C1 | C2 | C3 | C4 | D |
| Components for reuse | 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 | 0,90 | 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 | 48,86 | 0,00 | 0,00 |
| Exported energy, thermal | MJ | 0,00 | 0,00 | 0,36 | 0,00 | 0,00 | 114,00 | 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-004. Resilient, textile and laminate floor coverings (EN 16810). 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.



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