ENVIRONMENTAL PRODUCT DECLARATION

as per *ISO 14025* and *EN 15804+A2*

Owner of the Declaration	Fritz EGGER GmbH & Co. OG
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-EGG-20260065-IBA1-EN
Issue date	20.05.2026
Valid to	30.03.2031

EGGER Hybrid Flooring AquaDura and AquaDura+

EGGER Holzwerkstoffe Wismar GmbH & Co. KG

Institut Bauen und Umwelt e.V.

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1. General Information

EGGER Holzwerkstoffe Wismar GmbH & Co. KG

Programme holder

IBU – Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

Declaration number

EPD-EGG-20260065-IBA1-EN

This declaration is based on the product category rules:

Floor coverings, 01.08.2021
(PCR checked and approved by the SVR)

Issue date

20.05.2026

Valid to

30.03.2031

Dipl.-Ing. Hans Peters
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(Managing Director Institut Bauen und Umwelt e.V.)

EGGER Hybrid Flooring AquaDura and AquaDura+

Owner of the declaration

Fritz EGGER GmbH & Co. OG
Weiberndorf 20
6380 St. Johann in Tirol
Austria

Declared product / declared unit

1 m² EGGER hybridfloor of the dealer's brands AquaDura and AquaDura+ with an average area weight of 6.80 kg/m² and a moisture content of 6%.

Scope:

This document applies to the average hybrid floors of the dealer's brands AquaDura and AquaDura+ manufactured by EGGER Holzwerkstoffe Wismar GmbH & Co. KG at the plant in Wismar (Germany).

The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidence.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard is abbreviated as *EN 15804*.

Verification

The standard EN 15804 serves as the core PCR
Independent verification of the declaration and data according to ISO 14025:2011
☐ internal ☒ external

Florian Gehring,
(Independent verifier)

2. Product

2.1 Product description/Product definition

EGGER hybrid floors of the dealer's brands AquaDura and AquaDura+ are multi-modular, decorative floor coverings in the form of a flooring board or tile with a multi-layered composition. A high-density fibreboard (HDF) is used as the core board. The core board is laminated on both sides with melamine resin-impregnated paper (bottom plain brown, top decor look). On the underside, a fibre mat based on recycled natural fibres is laminated, which serves as integrated impact sound insulation. The wear layer is formed by a laminated transparent foil on the decor coating. The edges of the product are processed and allow for a form-fitting assembly of the product into a larger surface unit using a surrounding groove and tongue profile. The product is declared according to the product standard EN 16511 and classified into the defined utility classes 32 and 33. Regulation (EU) no. 305/2011 (CPR) applies to bringing the product into circulation in the EU/EFTA (with the exception of Switzerland). The product has a declaration of performance considering DIN EN 16511:2014+A1:2019, panels for floating installation – semi-rigid, multi-layered, modular floor coverings (MMF) with abrasion-resistant top layer and the CE marking. Relevant national regulations apply to use.

2.2 Application

The hybrid floor is intended for floating installation in new buildings or renovations indoors. Installation must be performed according to the installation instructions and state-of-the-art technology.

2.3 Technical data

The product has a CE declaration of performance according to system 3 of the harmonised standard EN 14041. The performance characteristics are listed below.

Structural engineering data

Name	Value	Unit
Reaction to fire according to EN 13501-1	Cfl-s1	
Slip resistance according to EN13893	>=0,3	
Thermal conductivity according to EN 125244	0,14	W/ (m*K)
Formaldehyde according to EN 717-1	E1	
PCP and VOC according to AgBB	PCP < 5ppm	

Performance values of the product according to the declaration of performance in relation to its essential characteristics according to EN 14041:2004/AC:2006, elastic, textile, laminate and modular multi-layered floor coverings - Essential characteristics.
Voluntary information for the product: see "technical data sheets" at www.egger.com (not part of the CE marking).

2.4 Delivery status

The smallest possible delivery unit consists of a flooring board package. The following packaging units are available:

Package dimensions

- Classic:1311 x 210 x 61 mm
  (8 planks per box = 13,8 kg)
- Large: 1311 x 261 x 61 mm
  (8 planks per box = 17,7 kg)
- Kingsize: 1311 x 345 x 49 mm
  (6 planks per box = 17,8 kg)

Pallet dimensions

- Classic: 1311 x 840 x 1007 mm
  (14 layers à 4 boxes = 56 boxes / pallet)
- Large: 1311 x 820 x 1007 mm
  (14 layers à 3 boxes = 42 boxes / pallet)
- Kingsize: 1311 x 820 x 1133 mm
  (20 layers à 2 boxes = 40 boxes / pallet)

2.5 Base materials/auxiliary materials

The flooring consists on average of 74% renewable and 26% fossil raw materials. The composition is as follows:

- 66% Dried wood fibres (HDF core board), of which 90-95% are by-products from the sawmill and 5-10% industrial residual wood
- 16% Binding agent (HDF core board), melamine-urea-formaldehyde binding agent (aminoplast fully cures and is chemically stably bonded)
- 3% Wear layer (polypropylene, PVC-free)
- 5% Lamination core board, of which 40% paper and 60% melamine-formaldehyde resin (aminoplast fully cures and is chemically stably bonded)
- 2% Hotmelt binding agent for wear layer and integrated impact sound (polyurethane hotmelt)
- 6% Impact sound (cellulose, 90% recycled content)
- 2% Hydrophobing agent (HDF core board)

Information on used kinds of wood and wood origin Download the current manufacturer's declaration on wood origin: www.egger.com

Chemicals legal information

The product contains substances from the ECHA list of Substances of Very High Concern (SVHC) (date 27.06.2018) above 0.1% by mass: no.

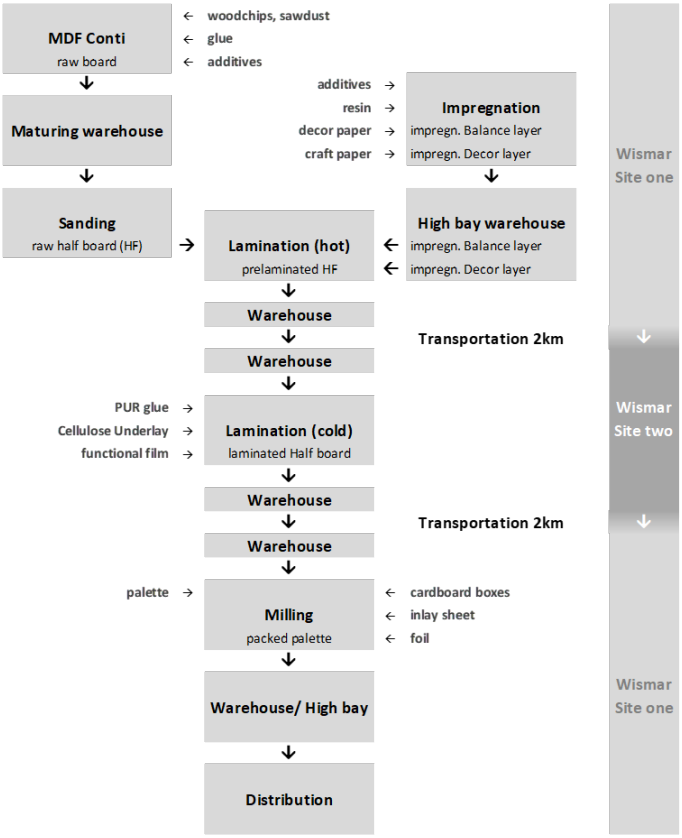
The product contains other CMR substances of category 1A or 1B, which are not on the candidate list, above 0.1% by mass in at least one sub-product: no.

Biocidal products have been added to this building product or it has been treated with biocidal products (this refers to treated goods within the meaning of the Biocidal Products Regulation (EU) No. 528/2012): no.

Download the current certification concerning the use of SVHC substances: www.egger.com

2.6 Manufacture

Industrial residual wood and by-products from the sawmill (hackchips, sawdust) form the basis for the core board, which is bonded using additives and urea-melamine-formaldehyde glue. The HDF boards are stored in the conditioning hall after production and then sanded. This is followed by lamination with melamine resin-impregnated papers on the top and bottom. Subsequently, storage and transport to the finishing plant (Plant 2) approximately 2 km away takes place. In Plant 2, the lamination of the upper, transparent foil wear layer and the underside cellulose fibre mat takes place. The foil wear layer is finalised with a UV-curing protective lacquer. Then the return transport to Plant 1 takes place.
Back in Plant 1, the refined semi-formats are finished into flooring boards with all-round tongue and groove profile on the profiling system, packaged, stored, and delivered to customers.



2.7 Environment and health during manufacturing

Waste resulting from the production process is recycled or used for heat generation in neighbouring production lines so that there is no waste resulting from the core process. The production facility has a biomass power plant.
Waste water from production is treated internally and returned to the production cycle.
Noise-intensive plant components such as the chip removal are encapsulated through structural measures. The quality management system is certified according to ISO 9001. The environmental and energy management system is certified according to ISO 14001 and ISO 50001.
Current actions are available in the EGGER Sustainability Report at www.egger.com.

2.8 Product processing/Installation

Installation:
The cutting and fitting of the individual panels can be performed with all conventional tools, for example a jigsaw or a handheld circular saw. The finest possible toothing should be selected and suitability for wood processing is required. Alternatively, using so-called 'laminate punches or shears' is also a possibility.

Occupational safety and environmental protection:
In the course of processing and installing the flooring, compliance with the safety regulations commonly applicable to processing is required (safety glasses, face mask in case of dust development). The sawdust that is produced should be vacuumed up. Observe all liability insurance association regulations for commercial processing operations.

Waste material and packaging:
Waste materials (cutting waste and packaging) generated on the construction site should be collected separately according to waste fractions.

2.9 Packaging

The packaging of the flooring boards consists of cardboard, which is intended for material recycling when collected separately.
Larger packaging units are stacked on wooden pallets and wrapped with PE foil. The pallets can be re-used. The foil can also be recycled if collected separately.

2.10 Condition of use

In the manufacturing process, thermosetting binding agents and saturating resins are used. With the application of heat, these are cross-linked in a three-dimensional irreversible polycondensation reaction. The bonding agents and resins are chemically stable and mechanically bonded to the wood under normal conditions. The adhesives used for the lamination of the underlay mat and the wear layer are hot melt adhesives, which are firmly cross-linked into the product matrix in the usage condition. The polypropylene wear layer is chemically stable.

2.11 Environment and health during use

Environmental protection:
There is no risk of water, air or ground contamination given currently available knowledge assuming intended use is observed.

Health aspects:
There are no known health hazards or indoor air quality issues to be expected from normal use, i.e. in accordance with the intended uses of the product. The harmlessness of the product is regularly verified through independent third-party emission tests. The products are awarded with national or international environmental labels such as the EU Ecolabel, A+, Floorscore and/or M1 and carry the TÜV Profizert Interior "Premium" mark.

2.12 Reference service life

The BBSR table indicates a general utilisation duration of 20 years for floor coverings in the component group 353.126.25. Due to the comparatively high resistance of the products, the manufacturer grants a guarantee period of up to 25 years for the declared product when used in private residential areas. In commercial areas, the manufacturer's guarantee period is generally 5 years. In order to increase the life duration of the floor covering, the manufacturer's instructions concerning guarantee and care must be observed. The manufacturer also provides a repair kit that allows for the repair of small damaged areas. Instructions for replacing individual elements are also available.

2.13 Extraordinary effects

Fire

Fire protection

Name	Value
Building material class	Cfl
Burning droplets	D0
Smoke gas development	S1

Water
Beyond the usual purpose the declared product is suitable for use in bathrooms, kitchens, and hotel bathrooms with usual usage. There is no guarantee against permanent water exposure beyond the usual application case.

Mechanical destruction
The fracture pattern of the flooring shows a relatively brittle behaviour. As the product mainly consists of wood fibres, potential sources of injury are to be classified as low (cut edges etc.). The abrasion and impact resistance classification is defined in the product standard (see 2.1).

2.14 Re-use phase

Reuse: If the flooring is dismantled carefully and with due care, it can be reused.
The requirement is for the flooring to have been installed floating and that the profiles are not damaged during dismantling and transport.

2.15 Disposal

Waste code: 170201/030105 according to AVV
Material recycling: Material recycling is possible according to the respective national regulations.
Energy recovery: With the high calorific value of approx. 17 MJ/kg, energy recovery is recommended. They may only be burned in suitable and legally compliant facilities in accordance with local regulations. Local regulations are available from the relevant authorities.
Packaging material: Transport packaging paper/ cardboard and foil can be recycled when collected separately. Retrieval of the packaging material can be arranged with the manufacturer in individual cases.

2.16 Further information

Further information can be found on the manufacturer's website at www.egger.com.

3. LCA: Calculation rules

3.1 Declared unit

This environmental product declaration refers to a declared unit of 1 m² of EGGER hybrid flooring with an average weight per unit area of 6.80 kg/m² and a delivery moisture content of 6%.

Declared unit

Name	Value	Unit
Declared unit	1	m^2
Grammage	6.8	kg/m^2

The EGGER hybrid floors of the dealer's brands AquaDura and AquaDura+ are manufactured at the location in Wismar, Germany. The calculation of the declared unit was based on area weight. This is based on the averaging of HDF boards, which was according to dimensional weight. The average for the impregnation used for lamination was also based on annual production. Given that the quantities of melamine and urea saturating resin depend on the product, the quantities used for the calculation reflect the annual average pro rata.

Due to some differences in composition and the HDF plate used, deviations between the products are to be expected. To quantify the potential variability of the LCA results of the different products, a sensitivity analysis was conducted.

According to the results of the sensitivity analysis, the representativeness of the stated average value for both product groups is confirmed (deviation in GWP-fossil between -16% for AquaDura and +6% for AquaDura+).

3.2 System boundary

The present LCA includes a cradle-to-gate consideration (cradle to factory gate) of the occurring environmental impacts with the modules C1–C4 and Module D (A1–A3, +C, +D). The following life cycle phases are taken into account in the analysis:

Module A1–A3 | Production stage
The production stage includes the cost of raw material procurement (roundwood, hackchips, producing the binder system, etc.) as well as related transport relative to the production location in Wismar.
Within the factory limits, the HDF- board production, the production of the glue and resin system, the impregnation, the lamination, and the finishing of the product are considered.
The glue system and the saturating resins are manufactured at the location in Wismar. The associated material and energy flows are therefore based on primary data. Warm and electrical energy are provided by the company's own biomass power plant, electricity is additionally sourced from the German grid (calculated on the basis of the German residual electricity mix: 0.85 kg CO2e/kWh). The production of product packaging is also included in Module A1-A3.

Module C1 | Deconstruction/Demolition
Manual disassembly was assumed for the product. The associated efforts are negligible, so no environmental impacts from the deconstruction of the products are declared.

Module C2 | Transport to waste treatment
Module C2 includes transport to waste treatment. For this, transport via heavy goods vehicle over a 50 km transport distance is set as a scenario.

Module C3 | Waste processing
In Module C3, chopping after product disassembly is considered. The wood products and with them the material-inherent characteristics leave the product system as secondary fuel in Module C3.

Module C4 | Disposal
The set scenario declares the energy recovery of the wood products, so no environmental impacts from the waste treatment of the products in C4 are to be expected.

Module D | Benefits and burdens beyond the system limit
In Module D, the energy recovery of the product at the end of life, including the corresponding energy substitution potentials in the form of a European average scenario, is described.

3.3 Estimates and assumptions

Assumptions and estimates are used in the absence of a representative background data set to represent the environmental impact of certain raw materials. All assumptions are supported with detailed documentation and correspond to the best possible representation of reality given the available data. A generic data set from the MLC database for spruce roundwood was used as background data set for roundwood. A large part of the wood processed by EGGER represents coniferous fibrewood.
For other wood types used, the data set for spruce roundwood should be considered as an approximation. The present simplification thus corresponds to the best possible approach given the existing data basis. The regional applicability of the background data sets used refers to average data for the German or European area.

For the environmental impacts, the insert of green electricity was calculated taking into account the residual electricity mix for the remaining electricity. The share of electricity demand covered by green electricity in the total electricity demand is 8%.

3.4 Cut-off criteria

All inputs and outputs for which data are available and from which a significant contribution is expected are included in the LCA model. Missing data are populated when a data basis is

available using conservative assumptions for average data or generic data and are documented accordingly. Only data with a contribution of less than 1% were removed. Neglecting these data can be justified by the limited effect to be expected. Thus, no processes, materials, or emissions were neglected from which a significant contribution to the environmental impact of the considered products is to be expected. It is assumed that the data have been fully captured and the total sum of the neglected input flows does not exceed 5% of the energy and mass insert.
Expenditures for machinery and infrastructure were not considered.

3.5 Background data

For the calculation of the LCA, the MLC 2024.2 background database in the LCA FE software version 10 was used. Additionally, secondary data from recognised literature sources (e.g. Rüter & Diederichs 2012) are used.

3.6 Data quality

The data was collected via data collection sheets especially created by EGGER. Questions were answered through an iterative process in writing via e-mail, phone, or in web meetings. Given the intensive discussion concerning a representation of material and energy flows that is as close as possible to reality within the company between EGGER and Daxner & Merl, the high quality of collected foreground data can be assumed. A consistent and uniform calculating procedure was applied in line with ISO 14044.

When selecting the background data, the technological, geographical, and time-related representativeness of the data basis was taken into consideration. When specific data was missing, generic data sets or a representative average were used. The MLC background data sets used are not older than ten years.

The assessment of the representativeness of the average can be found in section 3.1.

3.7 Period under review

Within the framework of collecting the foreground data, the inventory was recorded from January 2025 to June 2025.

The hybrid floors of the AquaDura products represent a new product family that has been continuously manufactured since January 2025. The six production months recorded in the data are considered representative for the continuous production process. This could lead to a slight overestimation of energy demand, as less heating is needed in summer.

The data collection for HDF production for AquaDura refers to the production year May 2022 to April 2023. The HDF production for AquaDura+ refers to the production year 2020. Since no changes have occurred in the meantime, the data is considered representative.

3.8 Geographic representativeness

Country or region in which the declared product system is manufactured, used or handled at the end of the product's life span: Germany

3.9 Allocation

Allocation within the forestry chain is based on the publication of Hasch 2002 and its update by Rüter & Albrecht 2007.

For floor production, in addition to roundwood, sawing by-products such as offcut, sawdust, and hackchips are used. A price allocation according to Rüter & Diederichs 2012 was used to calculate the environmental impact of these by-products from the sawing system.
Carbon content and primary energy content of the products were excluded from the price allocation and accounted for according to the material-inherent characteristics.

In addition to floor coverings, MDF/HDF, OSB boards, glue, and saturating resin are also manufactured at the Wismar location. The accrual of material and energy flows between the manufactured OSB, MDF, and floor coverings is based on analyses from the EGGER controlling system. Thanks to the systems implemented by EGGER, it was therefore possible to directly allocate a large part of the product-related data.

3.10 Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all data sets to be compared were created according to *EN 15804* and the building context and product-specific performance characteristics are taken into account.
The background database used must be mentioned.

In principle, comparing or evaluating EPD data is only possible if all datasets to be compared were prepared according to EN 15804 and the building context and/or the product-specific performance characteristics are taken into account.
For the calculation of the LCA, the MLC 2024.2 background database in the LCA FE software version 10 was used.

4. LCA: Scenarios and additional technical information

Characteristic product properties of biogenic carbon

During tree growth, the wood assimilates carbon dioxide and stores biogenic carbon.
The carbon stored in the product is declared in the following table.

Information on the description of the biogenic carbon content at the factory gate

Name	Value	Unit
Biogenic carbon content in product	2.34	kg C
Biogenic carbon content in accompanying packaging	0.18	kg C

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

Integration into building (A5)

The end of life cycle of the product packaging is not declared in Module A5, but is listed as technical scenario information.

Name	Value	Unit
Packaging (Polyethylen-foil)	0,020	kg
Packaging (cardboard box)	0,159	kg
Packaging (Palette)	0,244	kg

The end-of-life scenario set in this LCA study is based on the following assumptions:

End of life cycle (C1-C4)

Name	Value	Unit
Energy recovery [Feuchte 6 %]	6.8	kg

Reuse, recuperation and recycling potential (D), relevant scenarios

Name	Value	Unit
Net flow in module D [balance moisture of 6 %]	5,53	kg/m²
Moisture for thermal recovery [scenario assumption]	6	%
Processing rate	100	%
Efficiency of the system	68	%

The product reaches the end of the waste status after it is removed from the building, transported for preparation, and the chopping of the product. For the end of life of EGGER products, energy recovery as a secondary fuel is assumed. Energetic utilisation takes place in a biomass power plant.
Plant-specific parameters correspond to a European average scenario, as the main sales market for EGGER products is concentrated in Europe. The scenario assumes a processing rate for the floors after removal from the building of 100%. This assumption must be adapted accordingly after using the results in the context of the building. A constant moisture content of 6% is assumed for the product at end of life. This value may fluctuate significantly depending on the storage of the product prior to energetic utilisation.

5. LCA: Results

The following table contains the LCA results for a declared unit of 1 m² of average EGGER hybrid flooring (6.80 kg/m²).

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE OR INDICATOR NOT DECLARED; MNR = MODULE NOT RELEVANT)

Product stage			Construction process stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	MND	MND	MND	MND	MNR	MNR	MNR	MND	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 m² Hybridfloor (6,80 kg/m²)

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
Global Warming Potential total (GWP-total)	kg CO_2 eq	3.48E+00	0	2.7E-02	8.62E+00	0	-1.54E+01
Global Warming Potential fossil fuels (GWP-fossil)	kg CO_2 eq	1.19E+01	0	2.65E-02	4.07E-02	0	-2.56E+00
Global Warming Potential biogenic (GWP-biogenic)	kg CO_2 eq	-8.46E+00	0	7.41E-05	8.58E+00	0	-4.25E-04
Global Warming Potential luluc (GWP-luluc)	kg CO_2 eq	1.22E-02	0	4.33E-04	6.17E-06	0	-1.28E+01
Depletion potential of the stratospheric ozone layer (ODP)	kg CFC11 eq	2.91E-11	0	3.79E-15	9.21E-13	0	-4.68E-11
Acidification potential of land and water (AP)	mol H^+ eq	2.25E-02	0	9.13E-05	7.86E-05	0	5.3E-03
Eutrophication potential aquatic freshwater (EP-freshwater)	kg P eq	4.21E-05	0	1.1E-07	1.69E-07	0	-8.67E-06
Eutrophication potential aquatic marine (EP-marine)	kg N eq	1.23E-02	0	4.23E-05	1.96E-05	0	1.07E-03
Eutrophication potential terrestrial (EP-terrestrial)	mol N eq	8.61E-02	0	4.75E-04	2.05E-04	0	1.24E-02
Formation potential of tropospheric ozone photochemical oxidants (POCP)	kg NMVOC eq	2.36E-02	0	8.72E-05	5.19E-05	0	4.17E-03
Abiotic depletion potential for non fossil resources (ADPE)	kg Sb eq	6.56E-06	0	2.24E-09	7.61E-09	0	-4.34E-07
Abiotic depletion potential for fossil resources (ADPF)	MJ	2.33E+02	0	3.39E-01	8.54E-01	0	-7.86E+01
Water use (WDP)	m^3 world eq deprived	1.62E-01	0	3.99E-04	1.12E-02	0	-2.8E-01

RESULTS OF THE LCA - INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1 m² Hybridfloor (6,80 kg/m²)

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
Renewable primary energy as energy carrier (PERE)	MJ	5.45E+01	0	2.92E-02	8.81E+01	0	-3.13E+01
Renewable primary energy resources as material utilization (PERM)	MJ	9.2E+01	0	0	-8.74E+01	0	0
Total use of renewable primary energy resources (PERT)	MJ	1.46E+02	0	2.92E-02	6.16E-01	0	-3.13E+01
Non renewable primary energy as energy carrier (PENRE)	MJ	2.06E+02	0	3.39E-01	3.47E+01	0	-7.86E+01
Non renewable primary energy as material utilization (PENRM)	MJ	3.41E+01	0	0	-3.39E+01	0	0
Total use of non renewable primary energy resources (PENRT)	MJ	2.4E+02	0	3.39E-01	8.54E-01	0	-7.86E+01
Use of secondary material (SM)	kg	1.59E-01	0	0	0	0	0
Use of renewable secondary fuels (RSF)	MJ	3.04E-23	0	0	0	0	0
Use of non renewable secondary fuels (NRSF)	MJ	0	0	3.26E-05	4.72E-04	0	-1.72E-02
Use of net fresh water (FW)	m^3	0	0	0	0	0	0

RESULTS OF THE LCA – WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2: 1 m² Hybridfloor (6,80 kg/m²)

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
Hazardous waste disposed (HWD)	kg	6.38E-01	0	5.54E-05	7.03E-04	0	3.73E-04
Non hazardous waste disposed (NHWD)	kg	3.68E-03	0	6.18E-07	1.36E-04	0	-6.93E-03
Radioactive waste disposed (RWD)	kg	0	0	0	6.8E+00	0	0
Components for re-use (CRU)	kg	0	0	0	0	0	0
Materials for recycling (MFR)	kg	0	0	0	0	0	0
Materials for energy recovery (MER)	kg	0	0	0	5.53E+00	0	0
Exported electrical energy (EEE)	MJ	0	0	0	0	0	0
Exported thermal energy (EET)	MJ	0	0	0	0	0	0

RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional: 1 m² Hybridfloor (6,80 kg/m²)

Parameter	Unit	A1-A3	C1	C2	C3	C4	D
Incidence of disease due to PM emissions (PM)	Disease incidence	2.86E-07	0	6.46E-10	6.57E-10	0	2.76E-09
Human exposure efficiency relative to U235 (IR)	kBq U235 eq	3.8E-01	0	8.96E-05	2.24E-02	0	-1.14E+00

Comparative toxic unit for ecosystems (ETP-fw)	CTUe	6.25E+01	0	2.52E-01	2.48E-01	0	-1.28E+01
Comparative toxic unit for humans (carcinogenic) (HTP-c)	CTUh	2.01E-08	0	5.08E-12	1.39E-11	0	-3.51E-10
Comparative toxic unit for humans (noncarcinogenic) (HTP-nc)	CTUh	1.48E-07	0	2.28E-10	2.13E-10	0	4.99E-09
Soil quality index (SQP)	SQP	6.75E+02	0	1.67E-01	3.59E-01	0	-1.83E+01

Limitation note 1 – applies to the indicator 'Potential impact due to human exposure to U235'.
This impact category mainly addresses the potential effect of low-dose ionising radiation on human health in the nuclear fuel cycle. It does not consider impacts due to potential nuclear accidents and occupational exposure, nor the disposal of radioactive waste in underground facilities. The potential ionising radiation from soil, radon, and some building materials is also not measured by this indicator.

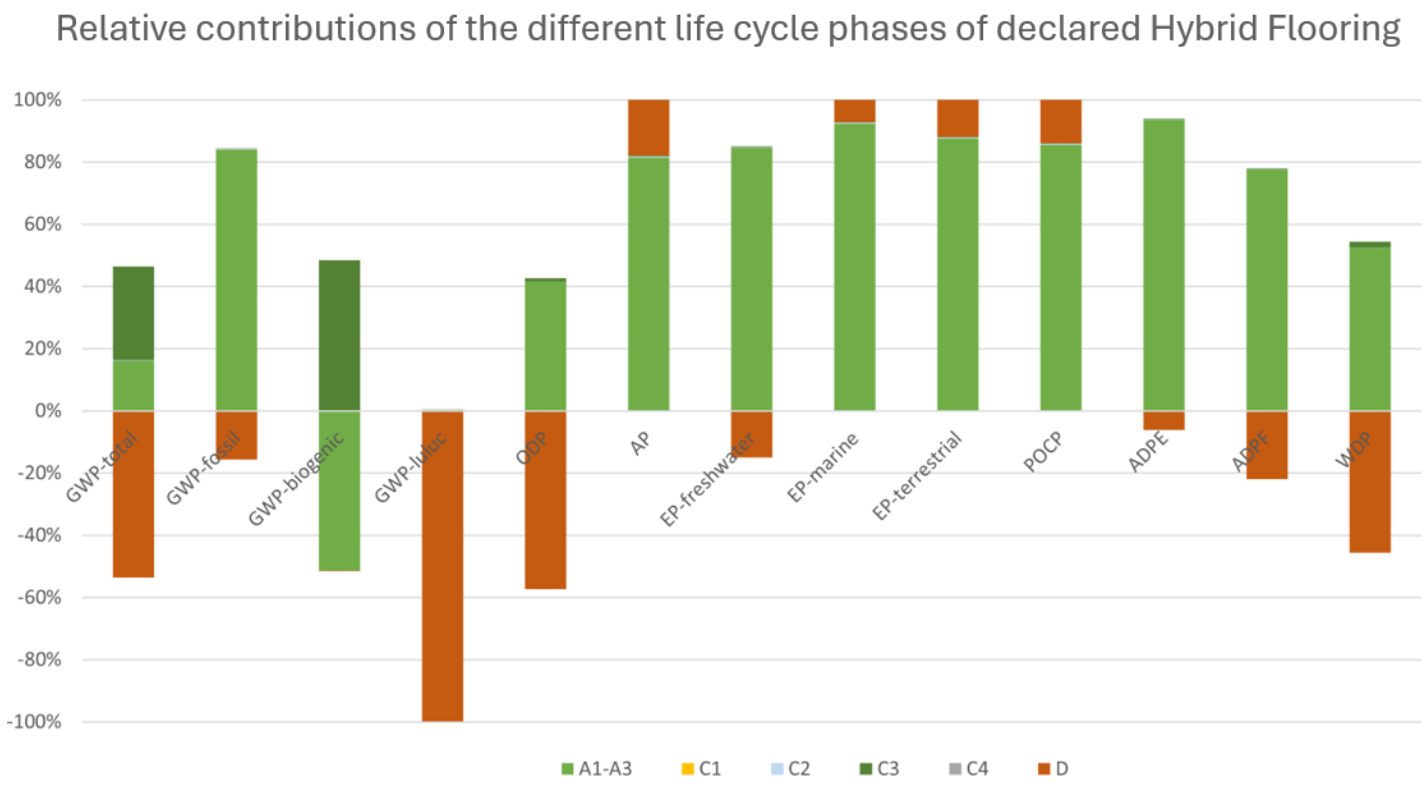
Limitation note 2 – applies to the indicators: 'Potential for the depletion of abiotic resources - non-fossil resources', 'Potential for the depletion of abiotic resources - fossil fuels', 'Water withdrawal potential (user)', 'Potential toxicity comparison unit for ecosystems', 'Potential toxicity comparison unit for humans - carcinogenic effect', 'Potential toxicity comparison unit for humans - non-carcinogenic effect', 'Potential Soil Quality Index'.
The results of these environmental impact indicators must be applied with caution, as the uncertainties in these results are high or there is limited experience with the indicators.

6. LCA: Interpretation

The following interpretation includes a summary of the LCA results relative to a declared unit of 1 m² average EGGER hybrid flooring.

For the global warming potential (GWP) during the production phase (Module A1–A3) of hybrid floors, the total is a negative value. This is due to the material use of wood in the products. While the tree is growing, the wood stores carbon dioxide as biogenic carbon (negative greenhouse potential) and does therefore not have a greenhouse effect as long as it is stored in the product. Only during the energy recovery at the end of the product's life (Module C3) is the stored

carbon released into the atmosphere as carbon dioxide emissions, contributing to potential global warming. The energy utilisation of waste wood was modelled CO2 neutral.
The negative values in Module D can be explained through the fact that the energy generated by the energy utilisation of the product is able to replace the combustion of fossil fuels. In this way, more emissions of (mainly fossil) fuels are avoided than those emitted through the use of the energy stored in the wood.



The potential global warming (GWP) in the production phase (Module A1–A3) of the EGGER hybrid floors can largely be attributed to the efforts of producing the HDF board and its upstream chain. The second largest driver is the lamination.

The results are representative for EGGER hybrid floors of the dealer's brands AquaDura and AquaDura+, which are manufactured in Wismar. They refer to an annual average of the total production volume of the EGGER location in Wismar, including all available variants. All products undergo the same manufacturing steps.

Due to some differences in the composition and the HDF plate used, deviations between the products are to be expected. To quantify the potential variability of the LCA results of the different products, a sensitivity analysis was conducted.

According to the conducted sensitivity analysis, the variability of the CO_2 footprint (GWP-total without temporary biogenic carbon storage) of the specific products ranges between -16% for AquaDura and +6% for AquaDura+. Therefore, the indication of an average value for both product groups is considered representative.

7. Requisite evidence

7.1 Formaldehyde emissions

The formaldehyde measurement is conducted annually at the Development and Testing Laboratory in Dresden (EPH) as part of the TÜV Proficert monitoring. The testing of the floor is carried out according to DIN EN 16516 and ISO 16000-28 (M1 odour test protocol).
Beyond the annual monitoring test, the rawboards used are continuously monitored in the internal laboratory.

Name	Value	Unit
Formaldehyde after 3 days	0,007	mg/m³

The requirements according to AgBB scheme 2018 of < 0,060 mg FO/m³ were met after 3 days, the requirements according the health evaluation of buildings products are fulfilled.

7.2 VOC emissions

The emissions measurement is carried out annually at the Development and Testing Laboratory in Dresden (EPH) within the framework of TÜV Proficert monitoring. The testing of the floor is carried out according to DIN EN 16516. Beyond the annual monitoring test, the rawboards used are continuously monitored in the internal laboratory. fulfiled

Name	Value	Unit
TVOC (C6-C16)	71	µg/m³
SVOC (C16-C22)	<5	µg/m³
VOC without LCI	<5	µg/m³
R-value (dimensionslos)	0,177	
Kanzerogene*	n.d.	

n.d. - not detected
*according to EU category 1A and 1B according to CLP Regulation (EC) No. 1272/2008
The material meets the requirements of the principles for the health assessment of building products after three, seven, as well as the demolition criteria after 28 days (AgBB scheme 2018, NIK list).

7.3 Additional information regarding the preliminary treatment of ingredients

No post-consumer recycled wood is used in the product. Recycled cellulose fibres are used for the directly laminated underlay mat. The harmlessness of the pre-product is certified by regular inspection of the product by the Ecoinstitut. There is no reason to assume that the product is polluted by recycled ingredients from the preliminary processing.

8. References

Standards

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EN 12524
EN 12524:2000 Building materials and products - Thermal and moisture protection characteristics - Tabulated design values

EN 13501-1
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EN 13893
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EN 15804
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EN 16511
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EN 16516
EN 16516:2017+A1:202, Building products: Assessment of the release of dangerous substances - Determination of emissions into indoor air; German version EN 16516:2017+A1:202.

ISO 9001
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ISO 14001
ISO 14001:2015-09, Environmental management systems - Requirements with guidance for use.

ISO 14025
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ISO 14044
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ISO 15686
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Further literature

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AVV
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BBSR Table
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CLP Regulation
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1907/2006.

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Ecological consideration of chipboard and fibreboard, Diss., Uni Hamburg revised 2007: Rueter, S. (BFH HAMBURG; Wood Technology), Albrecht, S. (Uni Stuttgart, GaBi).

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MLC 2024.2, Database for Life Cycle Engineering implemented in LCA for Experts software system. DB 2024.2. Sphera,1992-2024. Available at: https://lcadatabase.sphera.com/

LCI list
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