



Environmental product information for LEED v4.1® building certification

Scheucher Multilayer Parquet

Company Scheucher Holzindustrie GmbH
Website www.scheucherparkett.at/en/
Address Zehensdorf 100, 8092 Mettersdorf, Austria
Contact Sales Scheucher Parquet
E-Mail info@scheucherparkett.at
Phone +43 3477 23 30-0
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Author Daxner & Merl GmbH



This document aims at the identification of linkages between environmental product information covered by EPDs and the requirements of the LEED v4.1® building certification. It provides an overview of product related features based on the LEED v4.1 credit library [www.usgbc.org/credits 06/2023, LEED BD+C: New Construction].

.product description

Scheucher produces multilayer parquet flooring:

3-layer parquet WOODflor® (3-strip, planks)

- Top layer: various hardwoods
- Core layer: spruce, pine
- Balancing: spruce

2-layer parquet BILAflor®

- Top layer: various hardwoods
- Substrate: spruce

2-layer parquet MULTIfloor NOVOLOC® 5G

- Top layer: various hardwoods
- Substrate: softwood sticks with spruce veneer and plywood end pieces or plywood panel

This document refers to environmental product information of the delivered product including the finished coated surface.

Further information can be found at www.scheucherparkett.at/en/downloads

.application

Multilayer parquet flooring manufactured by Scheucher is intended for installation in Grade 1 interior applications (heated interiors with largely constant temperatures and climatic conditions typical for living areas).

WOODflor® can be installed with or without adhesives.

BILAflor® and MULTIfloor NOVOLOC® 5G must be installed fully glued down to subfloor.

.technical data

The following information must be provided in accordance with EU Directive No. 305/2011:

Name	Value	Unit	Compliance with further limit values of Scheucher multilayer parquet
Wood moisture acc. to <i>EN 13489</i>	5 – 9	%	
Length (min. - max.)	0.5 – 2.4	m	
Width (min. - max.)	0.07 – 0.222	m	
Height (min. - max.)	0.009 – 0.016	m	
Thermal conductivity acc. to <i>EN 14342</i>	0.14 – 0.17	W/(mK)	
Formaldehyde ¹ emissions acc. to <i>EN 717-1</i>	< 100	µg/m ³	Based on available test reports, it can be confirmed that the formaldehyde limit value according to the EU taxonomy is complied with (< 0.06 mg formaldehyde per m ³ according to <i>EN 16516</i>)
Formaldehyde ² emissions acc. to <i>EN 14342</i>	Class E1	All products are glued formaldehyde-free	Based on available test reports, it can be confirmed that the formaldehyde limit value according to the EU taxonomy is complied with (< 0.06 mg formaldehyde per m ³ according to <i>EN 16516</i>)
VOC ³ emissions acc. to <i>EN 16516</i> , <i>ISO 16000</i>	fulfils all requirements of EU-ECOLABEL, AgBB 2018, LEED, TÜV Interior, BREEAM, belgian and french VOC- regulation		
Breaking strength acc. to <i>EN 14342</i>	NPD	Not relevant for multilayer parquet	
Slip resistance acc. to <i>EN 14342</i>	NPD	No harmonised requirement standard available	
Durability acc. to <i>EN 14342</i>	Grade 1		

NPD: no performance declared; this characteristic is not of relevance for multilayer parquet.

No harmonised requirement standards are available for slip-resistance characteristics, national requirements refer to a wide variety of test standards and must be examined on a country-by-country basis and complied with as required.

Performance data of the product in accordance with the declaration of performance with respect to its essential characteristics according to *EN 14342:2013, Wood flooring - Characteristics, evaluation of conformity and marking* (not part of CE-marking).

¹ See credit Low-Emitting Materials for respective assessment acc. to LEED

² See credit Low-Emitting Materials for respective assessment acc. to LEED

³ See credit Low-Emitting Materials for respective assessment acc. to LEED

.environmental product declaration

See credits below:

- Building Life-Cycle Impact Reduction
- Environmental Product Declarations

Owner of the declaration	Scheucher Holzindustrie GmbH
Programme holder & publisher	Institut Bauen und Umwelt e.V. (IBU)
ECO-EPD at ECO platform	yes
Author of the LCA	Daxner & Merl GmbH
Software & database	GaBi software-system and database for life cycle engineering GaBi 9, DB v8.7 SP 40 [see documentation]
Third-party verification	Completed; Type III declaration in compliance with ISO 14025
External verifier	Matthias Klingler
Declaration number	EPD-SCP-20200238-IBC1-EN (Multilayer parquet)
System boundaries	Cradle-to-gate with modules (A1-A3; C3 and D)
PCR	Solid wood products
Issue date	11.03.2021
Valid to	30.11.2025
Declaration type	Manufacturer's declaration of an average product according to <i>EN 15804+A1</i>
Declared unit	1 m ² average Scheucher multilayer parquet (7.37 kg/m ²) with a moisture of 6-9 % at delivery, produced at the Scheucher production site in Mettersdorf (Austria).
Conversion factor [mass/declared unit]	Scheucher multilayer parquet: 7.37
Reference period	In accordance with the current BNB Guidelines, the Reference Service Life is 40 years when installed and cared correctly (<i>BNB Guideline: 11/2011</i>).
End of life scenario	The product reaches the end of waste status after removal from the building. For the End-of-Life of Scheucher multilayer parquet, energy recovery as secondary combustibles, is assumed. The energy recovery takes place in a biomass power plant. As the sales market for Scheucher multilayer parquet is concentrated in the European region, plant-specific characteristic values correspond to a European average scenario (EU-28). The scenario considers a reprocessing rate of the multilayer parquet of 100 % after removal from the building. This assumption has to be adjusted accordingly when applying the results in the building context. At the End-of-Life of the product, an equilibrium moisture content of 12 % is assumed. This value can vary widely depending on the storage of the product before energy recovery.

.results of the LCA – environmental impacts acc. to EN 15804+A1

Declared unit: 1 m ² Scheucher multilayer parquet (7.37 kg/m ²)				
Declared life cycle stage		Product stage	End of life stage	Benefits and loads beyond the system boundary
Indicator	Unit	A1-A3	C3	D
GWP	[kg CO ₂ -Eq.]	-6.71E+00	1.22E+01	-6.48E+00
ODP	[kg CFC11-Eq.]	6.69E-08	1.74E-15	-1.08E-13
AP	[kg SO ₂ -Eq.]	2.03E-02	1.06E-04	3.37E-03
EP	[kg (PO ₄) ³⁻ -Eq.]	4.86E-03	1.30E-05	2.27E-04
POCP	[kg ethene-Eq.]	3.24E-03	8.70E-06	1.31E-03
ADPE	[kg Sb-Eq.]	3.87E-06	1.82E-08	-1.29E-06
ADPF	[MJ]	7.47E+01	6.46E-01	-9.24E+01

Caption

GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE - Abiotic depletion potential for non-fossil resources; ADPF - Abiotic depletion potential for fossil resources

.results of the LCA – resource use acc. to EN 15804+A1

Declared unit: 1 m ² Scheucher multilayer parquet (7.37 kg/m ²)				
Declared life cycle stage		Product stage	End of life stage	Benefits and loads beyond the system boundary
Indicator	Unit	A1-A3	C3	D
PERE	[MJ]	1.25E+02	1.25E+02	-2.88E+01
PERM	[MJ]	1.25E+02	-1.25E+02	0.00E+00
PERT	[MJ]	2.50E+02	4.62E-01	-2.88E+01
PENRE	[MJ]	7.65E+01	1.18E+01	-1.17E+02
PENRM	[MJ]	1.08E+01	-1.08E+01	0.00E+00
PENRT	[MJ]	8.72E+01	1.04E+00	-1.17E+02
SM	[kg]	3.78E-02	0.00E+00	0.00E+00
RSF	[MJ]	1.20E+00	0.00E+00	1.16E+02
NRSF	[MJ]	0.00E+00	0.00E+00	-1.07E+02
FW	[m ³]	1.06E+00	5.35E-04	-2.38E-02

Caption

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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

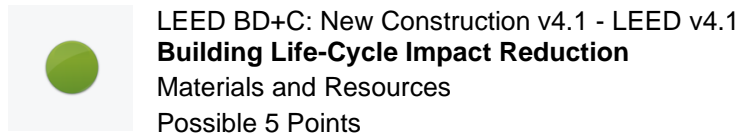
.results of the LCA – output flows acc. to EN 15804+A1

Declared unit: 1 m ² Scheucher multilayer parquet (7.37 kg/m ²)				
Declared life cycle stage		Product stage	End of life stage	Benefits and loads beyond the system boundary
Indicator	Unit	A1-A3	C3	D
HWD	[kg]	8.85E-07	4.32E-10	-4.64E-08
NHWD	[kg]	1.45E-01	7.40E-04	5.46E-03
RWD	[kg]	4.59E-03	1.58E-04	-9.85E-03
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	0.00E+00	0.00E+00	0.00E+00
MER	[kg]	0.00E+00	7.71E+00	0.00E+00
EEE	[MJ]	0.00E+00	0.00E+00	0.00E+00
EET	[MJ]	0.00E+00	0.00E+00	0.00E+00

Caption

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported energy, electric energy, EET = Exported energy, thermal energy

.LEED v4.1 credits with regard to environmental product information



Intent

To encourage adaptive reuse and optimize the environmental performance of products and materials.

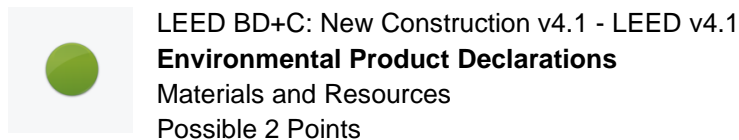
Scheucher multilayer parquet provides information for option 2 and supports whole building life-cycle assessment:

Option 2. Whole-building life-cycle assessment (1-4 points)

The environmental product declaration ([EPD-SCP-20200238-IBC1-EN](#) Scheucher multilayer parquet) presents product specific values, which can directly be used for the life cycle assessment of the whole project. Given results are compliant with *ISO 14044* (and *EN 15804*) and report the following impact categories (results see above, page 5):

- global warming potential (greenhouse gases), in kg CO₂eq.
- depletion of the stratospheric ozone layer, in kg CFC-11eq.
- acidification of land and water sources, in kg SO₂eq.
- eutrophication, in kg phosphate eq.
- formation of tropospheric ozone, in kg ethene eq.
- abiotic depletion potential for fossil resources, in MJ according to CML

For European projects the EPD supports Europe ACP according to Level(s) framework (paths 1-3).




Intent

To encourage the use of products and materials for which life-cycle information is available and that have environmentally, economically, and socially preferable life-cycle impacts. To reward project teams for selecting products from manufacturers who have verified improved environmental life-cycle impacts.

Option 1. environmental product declaration

Scheucher multilayer parquet meets the following disclosure criteria:

- Environmental product declaration which complies with ISO 14025, ISO 14040, ISO 14044 and EN 15804+A2 with a cradle-to-gate scope with modules (Module A1-A3, Module C3 and Module D declared).
- Product-specific Type III EPD - Products with third-party certification (Type III), including external verification and external critical review are valued as 1.5 products for the purposes of credit achievement calculation.




LEED BD+C: New Construction v4.1 - LEED v4.1
Sourcing of Raw Materials
 Materials and Resources
 Possible 2 Points

Intent
 To encourage the use of products and materials for which life cycle information is available and that have environmentally, economically, and socially preferable life cycle impacts. To reward project teams for selecting products verified to have been extracted or sourced in a responsible manner.

Product information for Scheucher multilayer parquet within this credit:

Responsible sourcing of raw materials	Description
Wood products certified by Forest Stewardship Council or USGBC-approved equivalent	<p>Site Mettersdorf (Austria): Forest Stewardship Council (FSC) Certificate Number HFA-COC-100057 (Chain-of-Custody) Date of first issuance: 18.02.2011 Date of issuance: 13.01.2021 Valid to: 12.01.2026</p> <p>Scheucher sources FSC-certified wood. When ordering, it must be stated that FSC-certified wood is used, thus it can be guaranteed to be assigned to the project.</p> <p>Scheucher multilayer parquet has been awarded the European Ecolabel UZ 035 Wood, cork and bamboo-based floor coverings under registration no. AT/035/001.</p>
Recycled content element	No secondary wood is used to produce Scheucher multilayer parquet.

The production of Scheucher multilayer parquet takes place at the production site in Mettersdorf (Austria). In case your project is located within a radius of 100 miles from the Mettersdorf site, please contact Scheucher for additional information www.scheucherparkett.at/en/.



LEED BD+C: New Construction v4.1 - LEED v4.1
Material Ingredients
 Materials and Resources
 Possible 2 Points

Intent
 To encourage the use of products and materials for which life-cycle information is available and that have environmentally, economically, and socially preferable life-cycle impacts. To reward project teams for selecting products for which the chemical ingredients in the product are inventoried using an accepted methodology and for selecting products verified to minimize the use and generation of harmful substances. To reward raw material manufacturers who produce products verified to have improved life-cycle impacts.

Product information for Scheucher multilayer parquet within this credit:

Option 1. material ingredient reporting	
Availability of a manufacturer inventory	Yes Scheucher multilayer parquet has been awarded the European Ecolabel UZ 035 Wood, cork and bamboo-based floor coverings under registration no. AT/035/001 , with third-party verification.

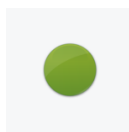
Option 2. material ingredient optimization

International Alternative Compliance Path – REACH Optimization

 All ingredients comply with REACH requirements (date 25.06.2020), no other cancerogenic, mutagenic, reprotoxic (CMR) substances of category 1A or 1B that are not on the *ECHA candidate list*, above 0.1 % by mass, see EPD section 2.6

Scheucher multilayer parquet has been awarded the European Ecolabel UZ 035 Wood, cork and bamboo-based floor coverings under registration no. [AT/035/001](https://ec.europa.eu/eco-label/uz035001), with third-party verification.

Download area for product data sheets: www.scheucherparkett.at/en/downloads



LEED BD+C: New Construction v4.1 - LEED v4.1

Construction and Demolition Waste Management

Materials and Resources

Possible 2 Points

Intent

To reduce construction and demolition waste disposed of in landfills and incineration facilities through waste prevention and by reusing, recovering, and recycling materials, and conserving resources for future generations. To delay the need for new landfill facilities that are often located in frontline communities and create green jobs and materials markets for building construction services.

Option 1: Diversion

Scheucher multilayer parquet represents a suitable target for diversion of resources from landfill. Applying re-use and energetic recovery according to chapter 2.15.

Option 2. Waste Prevention

Scheucher multilayer parquet including packaging materials can be separately collected and re-used or recycled.

Sections 2.9 and 2.10 of the environmental product declaration of Scheucher multilayer parquet present details for the product's construction phase. In addition, section 2.15 indicates details for the product's re-use phase. Referring information are compliant with the intent to promote resource efficiency via the effective and appropriate management of construction waste. Aspects described in the EPD should be considered:

EPD | chapter 2.9 | product processing/installation

Scheucher parquet flooring must be installed in accordance with the installation instructions enclosed. The floor can be installed with or without adhesives (solely WOODflor®). Standard safety guidelines must be observed during installation (dust mask, goggles). Statutory guidelines concerning noise protection must be observed. Any tools required may only be used as designated and in accordance with the respective manufacturer's operating instructions. The specifications of the professional liability associations must be observed during commercial installation. Residual material or packaging must be disposed separately in accordance with the waste fraction.

EPD | chapter 2.10 | packaging

The packaging consists of cardboard, perforated PE foil and PET packing strips. The packaging materials must be collected separately and recycled in accordance with local legal specifications. The pallets used are disposable.

EPD | chapter 2.15 | re-use phase

Due to the click profile (NOVOLOC® 5G) glueless installed, WOODflor® can be removed and re-used for the same application. If re-use is not possible, the high calorific value of the product makes it suitable for an energetic recovery in the form of cascade utilization.



LEED BD+C: New Construction v4.1 - LEED v4.1

Low-Emitting Materials

Indoor Environmental Quality

Possible 3 Points

Intent

To reduce concentrations of chemical contaminants that can damage air quality, and the environment, and to protect the health, productivity, and comfort of installers and building occupants.

Product information from Scheucher multilayer parquet for this criterion:

Formaldehyde:

Scheucher multilayer parquet is glued formaldehyde-free and is according to the test report below the detectability limit ($< 0.005 \text{ ppm} = < 0.0062 \text{ mg/m}^3$). Therefore, a contribution is made to good indoor hygiene.

Scheucher multilayer parquet received the following certificates:

- European Ecolabel UZ 035 Wood, cork and bamboo-based floor coverings under registration no. [AT/035/001](#) (formaldehyde limit value acc. to UZ 035, therefore $\leq 0,062 \text{ mg/m}^3$).

Further product information of Scheucher multilayer parquet for this criterion, see EPD chapter 2.12 (environment and health during use):

- Evidence that Scheucher parquet flooring is safe for use is provided by the TÜV PROFICERT-Interior Program. The current certificate has the certificate registration number 70 720 5620-1 and is based on audit report 2117130/2020/1.
- Scheucher parquet floors are considered emission-free in accordance with the Austrian BAUBOOK.
- Scheucher parquet meet the requirements of the AgBB scheme, the French and Belgian VOC regulations, BREEAM general level and LEED v4⁴.

VOC-emissions:

See EPD chapter 7 (requisite evidence):

Already after 7 days the termination criterion according to the AgBB scheme was fulfilled.

Test institute: EPH Dresden, Entwicklungs- und Prüflabor Holztechnologie GmbH, Zellescher Weg 24, 01217 Dresden.

Test report: Nr. 250241/2015/1/1 dated 30.11.2015

Test method: chamber test acc. to *ISO 16000-3*, *ISO 16000-6* and *ISO 16000-9*

According to EPD chapter 2.6 (base materials/Ancillary materials) all ingredients comply with REACH requirements (date 25.06.2020), no other cancerogenic, mutagenic, reprotoxic (CMR) substances of category 1A or 1B that are not on the *ECHA candidate list*, above 0.1 % by mass.

Scheucher multilayer parquet received the following certificates:

- Eurofins Product Testing A/S confirms that the test results of the tested product indicate that the product qualifies for LEED v4 specifications on VOC emissions complying with: The requirements of CDPH-IAQ (California Department of Public Health, Feb 2010); and a TVOC below 0.5 mg/m^3 in both office and class room (test report no. 392-2017-00286701_H_EN and 392-2017-00286702_H_EN).
- Scheucher multilayer parquet (products WOODflor, MULTIfloor and BILAflor) received the EU Ecolabel for multilayer parquet in March 2023 after a successful testing according to test file no. VKI 1562-2023 in accordance with Regulation EG 66/2010, and therefore complies with the following limit values:

⁴ Confirmed by TÜV PROFICERT-product Interior certificate, certificate registration number 70 720 5620-1

Compound	Limit value after 28 days storage in a ventilated test chamber (see <i>CEN/TS 16516</i>) in mg/m³ air
Total VOC minus acetic acid (CAS 64-19-7)	< 0.3
Total SVOC	< 0.1
R-value for LCI substances minus acetic acid (CAS 64-19-7)	≤ 1
Carcinogenic substances	< 0.001

Disclaimer: The content of, and results shown in this fact sheet are based on data and information submitted by the client. Therefore, Daxner & Merl GmbH makes no representation or warranty in regard of the correctness or completeness of the content of this document, or the results shown.

.References

AgBB, board for the health evaluation of building products, German Federal Environmental Agency, Wörlitzer Platz 1, 06844 Dessau-Roßlau.

BNB: BNB evaluation table for building products. Useful lives of components for life cycle assessments in accordance with the sustainable building assessment system (BNB), Federal Ministry of Transport, Building.

ECHA candidate list: List of substances of very high concern considered for approval (status 25.06.2020) according to Article 59 para. 10 of the REACH Regulation. European Chemicals Agency.

EN 717-1: DIN EN 717-1:2005-01, Wood-based panels - Determination of formaldehyde release - Part 1: Formaldehyde emission by the chamber method.

EN 13489: DIN EN 13489:2017-12, Wood-flooring and parquet - Multi-layer parquet elements.

EN 13501-1: DIN EN 13501-1:2007+A1:2009, Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests.

EN 14342: DIN EN 14342:2013-09, Wood flooring - Characteristics, evaluation of conformity and marking.

EN 15804: DIN EN 15804: 2012-04+A1 2013, Sustainability of construction works - Environmental Product Declarations - Core rules for the product category of construction products.

EN 16516: DIN EN 16516:2020-10, Construction products: Assessment of release of dangerous substances – Determination of emissions into indoor air.

EPD (2021), EPD-SCP-20200238-IBC1-EN, Scheucher Multilayer Parquet, Scheucher Multilayer Parquet, Scheucher Holzindustrie GmbH, Institut Bauen und Umwelt e.V. (IBU), 2021.

Eurofins Product Testing A/S: LEED confirmation for MULTIfloor, WOODflo and BILAfloor supplied by Scheucher Holzindustrie GmbH; report no. 392-2017-00286701_H_EN and 392-2017-00286702_H_EN.

European Ecolabel UZ 035 Wood, cork and bamboo-based floor coverings: Scheucher multilayer parquet, registration no. [AT/035/001](https://www.ecolabel.eu/uz/035/001).

FSC-certificate, Site Mettersdorf: Forest Stewardship Council (FSC). Certificate Number [HFA-COC-100057](https://www.fsc.org/coc/HFA-COC-100057) (Chain-of-Custody). Date of issuance: 13.01.2021, Valid to: 12.01.2026.

GaBi: GaBi 9, Software-System and Database for Life Cycle Engineering. DB v8.7 SP 40. Stuttgart, Echterdingen: Sphera, 1992-2020. Available at: <https://sphera.com/product-sustainability-gabi-data-search/>.

ISO 14025: DIN EN ISO 14025:2011-10, Environmental labels and declarations – Type III environmental declarations – Principles and procedures.

ISO 14040:2006-07, Environmental management – Life cycle assessment – Principles and framework.

ISO 14044: DIN EN ISO 14044:2006-10: Environmental Management – Life Cycle Assessment – Requirements and Guidelines.

ISO 16000: DIN ISO 16000:2013-01, Indoor air.

ISO 16000-3: DIN ISO 16000-3:2013-01, Indoor air - Part 3: Determination of formaldehyde and other carbonyl compounds in indoor air and test chamber air – Active sampling method.

ISO 16000-6: ISO 16000-6:2011-12, Indoor air contaminants – Part 6: Determination of VOCs in indoor air and test chambers, sampling on Tenax TA®, thermal desorption and gas chromatography with MS/FID.

ISO 16000-9: DIN EN ISO 16000-9:2008-04, Indoor air - Part 9: Determination of the emission of volatile organic compounds from building products and furnishing - Emission test chamber method.

TÜV PROFiCERT-Interior Program: Certificate registration number 70 720 5620-1, based on audit report 2117130/2020/1.

U.S. Green Building Council, 2023. LEED v4.1 for Building Design and Construction.