

ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804




Owner of the Declaration	Fritz EGGER GmbH & Co. OG Holzwerkstoffe
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
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EGGER Laminate Micro Fritz EGGER GmbH & Co. OG Holzwerkstoffe

www.bau-umwelt.com / <https://epd-online.com>



1. General Information

<p>Fritz EGGER GmbH & Co. OG</p> <p>Programme holder IBU - Institut Bauen und Umwelt e.V. Panoramastr. 1 10178 Berlin Germany</p> <hr/> <p>Declaration number EPD-EGG-2010265-IBA1-EN</p> <hr/> <p>This Declaration is based on the Product Category Rules: Laminates, 07.2014 (PCR tested and approved by the independent expert committee)</p> <hr/> <p>Issue date 31.07.2014</p> <hr/> <p>Valid to 30.07.2020</p> <hr/> <p></p> <hr/> <p>Prof. Dr.-Ing. Horst J. Bossenmayer (President of Institut Bauen und Umwelt e.V.)</p> <hr/> <p></p> <hr/> <p>Dr. Burkhard Lehmann (Managing Director IBU)</p>	<p>EGGER Laminate Micro</p> <p>Owner of the Declaration FRITZ EGGER GmbH & Co. OG Holzwerkstoffe Weiberndorf 20 6380 St. Johann in Tirol Austria</p> <hr/> <p>Declared product / Declared unit One square meter of EGGER laminate Micro with a nominal thickness of 0.15mm.</p> <hr/> <p>Scope: This document refers to the laminate Micro manufactured by EGGER Kunststoffe GmbH & Co. KG in its Gifhorn (Germany) plant. This document is translated from the German Environmental Product Declaration into English. It is based on the Product Declaration original version EPD-EGG-2010265-IBA1-DE. The verifier has no influence on the quality of the translation. 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 evidences.</p> <hr/> <p>Verification</p> <table border="1"> <tr> <td colspan="2">The CEN Norm EN 15804 serves as the core PCR</td> </tr> <tr> <td colspan="2">Independent verification of the declaration according to ISO 14025</td> </tr> <tr> <td><input type="checkbox"/> internally</td> <td><input checked="" type="checkbox"/> externally</td> </tr> </table> <hr/> <p></p> <hr/> <p>Matthias Klingler (Independent tester appointed by SVA)</p>	The CEN Norm EN 15804 serves as the core PCR		Independent verification of the declaration according to ISO 14025		<input type="checkbox"/> internally	<input checked="" type="checkbox"/> externally
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2. Product

2.1 Product description

EGGER laminates Micro are decorative laminates based on curable resins (laminates). Laminates consist of cellulose fibre web (paper) impregnated with heat-setting resins. They have a multilayer structure and consist of melamine resin impregnated decorative paper and a backing paper, which are laminated under high pressure and heat. The laminate structure, the resin and paper quality, the surface texture, use of special overlays and the press parameters during production determine the laminate quality and therefore the subsequent use or area of application.

2.2 Application

Laminates are non-weight-bearing and serve as lamination materials. EGGER laminates are only suitable for indoor applications. The laminate Micro is used to laminate and/or lining door elements, kitchen and bathroom fronts, window sills, transition skirtings, as well as cornices and light shutter profiles.

2.3 Technical Data

EGGER laminate Micro is tested according to the testing procedure described in /EN438-2:2016/. The technical data sheet "EGGER Laminate Micro" provides detailed information regarding quality features and product properties.

Laminate Micro (uni or white)

Name	Value	Unit
Density	≥ 1350	kg/m ³
Resistance to abrasion * according to EN 438	≥ 150	U
Resistance to scratches (smooth finishes) according to EN 438	2	Degree
Resistance to scratches (textured finishes) according to EN 438	3	Degree
Lightfastness according to EN 438	4 - 5	Greyscale
Dimensional deviation Width tolerance	+10/-0	mm
Dimensional deviation Thickness tolerance	+0.10/ - 0.05	mm

* Initial point IP

The mass per unit area is calculated using the following formula:

Mass per unit area [kg/m²] = Density 1350 [kg/m³] x Laminate thickness [m]

2.4 Placing on the market / Application rules

The product corresponds to standard /EN 438-3/ - High-Pressure Decorative Laminates (HPL) – Sheets based on thermosetting resins (laminates) - Part 3: Classification and specifications for laminates less than 2 mm thick intended for bonding to supporting substrates; German version /EN 438-3:2016/. Corresponding national regulations apply to use

2.5 Delivery status

EGGER laminate Micro is only delivered as a roll.

Form of delivery - format - roll:

- Roll lengths: 200, 400, 600 and 800 m
- Max. roll width: 1,310 mm
- Nominal thickness: 0.15 and 0.20 mm

2.6 Base materials / Ancillary materials

EGGER laminates Micro with a nominal thickness of 0.15 or 0.20 mm consist of:

- decor paper (50 -125 g/m²)
- backing paper (50 – 100 g/m²)
- overlay paper (20 – 25 g/m²)
- melamine-formaldehyde resin

Name	Value	Unit
Paper percentage	72	%
Resin percentage	28	%
Additive	<1	%

2.7 Manufacture

EGGER laminate Micro is only produced using a continuous process. Dual-belt presses allow the continuous production of various laminate thicknesses and grades. This grade or type of laminate production is generally known as CPL (Continuous Pressed Laminate). EGGER laminate Micro is produced according to /EN 438-3:2016/.

The laminates consist of layers of cellulose fibre webs (usually paper) that are impregnated with curable resins. The one-sided outer layer(s) with decorative colours or patterns is (are) impregnated with melamine-based resins. Applying heat and pressure causes the resins to flow and subsequently cure. Cross-linking of the resins, reinforced by the cellulose fibres of the papers, results in a very dense material with a sealed surface.

2.8 Environment and health during manufacturing

The manufacturing plant is certified according to the international environmental management standard /ISO 14001/. The management system includes the constant improvement of the environmental performance assessment, the continuous reduction of environmental risks, as well as the implementation of environmental protection measures.

Due to the manufacturing conditions no measures for health protection are necessary over and above the

legislative and other regulations. Values in all areas of the plant are significantly below the /MAC/ (Maximum Allowable Concentration) values (Germany).

Air: Exhaust air from the production process is cleaned in accordance with the applicable legal regulations.

Emissions are significantly below the /TG Air/ (Technical Guideline to Keeping Air Clean).

Water / ground: There is no contamination of water or the ground. Waste water from the production process is cleaned internally and fed into the sewer system.

Noise protection measurements showed that all the values determined within and outside of the production plant were far below the minimum requirements applicable for Germany. Sections of the plant where high noise levels are produced have been shielded by suitable construction measures.

2.9 Product processing/Installation

EGGER laminate Micro can be used for the lamination and lining of classic wood-based materials such as chipboard, MDF (medium-density fibreboard) and HDF (high-density fibreboard) boards as well as PVC coreboards. Due to the low thickness, EGGER Laminate Micro can only be delivered and processed as rolled goods. Whether wood-based material or PVC coreboards are used, this laminate quality can be readily processed in combination with select glue systems and on suitable production equipment. Special equipment that supports automated production is required for processing.

In principle, all persons transporting and / or handling laminates should wear personal protective equipment such as gloves, safety footwear and suitable work clothing.

Detailed processing recommendations can be found under "Processing instructions EGGER laminate Micro."

2.10 Packaging

The laminates are packaged and delivered as rolled goods on non-returnable or returnable wood pallets. Other packaging material includes: cardboard, wood-based materials, PE films, and PET strapping. The cardboard, wood-based materials, and plastic components can be thermally processed after use.

2.11 Condition of use

Ingredients in utilisation state:

The components of laminates Micro correspond in their proportions to those of the base material composition in Section 2.6 "Base Materials/Ancillary materials".

2.12 Environment and health during use

Environmental protection: When the described products are used properly in accordance with the area of application, there is no risk of water, air or ground contamination according to the current state of knowledge.

Health protection: No impairment of or damage to health is to be expected when laminates are used normally and in accordance with the intended purpose. With the exception of minor amounts of formaldehyde in quantities that are harmless to health, no emissions of hazardous substances can be detected.

2.13 Reference service life

A reference period of use was not declared in this study since the period of use was not taken into account in the model.

2.14 Extraordinary effects

Fire

EGGER laminate Micro complies with interior finishing requirements for fire protection: little smoke formation, no softening and no flaming droplets. Laminate is a coating material and is used for manufacturing composite elements. Classification in a building material class depends on the support material used.

Water

No substances of content that could be hazardous to water are washed out. All leachable substances are significantly below legal thresholds. Laminates are not resistant against continuous exposure to water (standing water).

Mechanical destruction

Mechanical destruction does not lead to the release of hazardous substances, there is no environmental

impact. The fracture pattern of laminates indicates brittle characteristics. The fracture edges are sharp so that wearing protective gloves is essential.

2.15 Re-use phase

Since laminates are usually used as composite materials, reuse is not possible as a rule.

Reclamation for energy generation (in approved facilities): Due to the high heating value of approximately 15-16 MJ/kg, reclamation for the generation of process energy and electricity (cogeneration plants) is possible.

2.16 Disposal

Energetic recovery or disposal (waste key according to European Waste Catalogue: 17 02 01/03).

Packaging: Transport packaging can be recycled in the case of separate collection. In some cases, external disposal can be arranged with the manufacturer.

2.17 Further information

Extensive information and processing recommendations are available under www.egger.com/laminates.

3. LCA: Calculation rules

3.1 Declared Unit

The declared unit is one square meter laminate Micro 0.15mm (0.203 kg/m²).

Declared unit

Name	Value	Unit
Declared unit	1	m ²
Grammage	0.203	kg/m ²
Conversion factor to 1 kg	-	-

3.2 System boundary

Type of EPD: Cradle to plant gates – with options
The lifecycle analysis for the products under consideration encompasses the following segments of the lifecycle: “Product stage” and “Credits and charges beyond the limits of the product system”.

The systems therefore encompass the following stages according to /DIN EN 15804/:

Product stage (module A1-A3):

A1 Procurement and processing of raw materials as well as processing of secondary raw materials serving as inputs

A2 Transportation to the manufacturer

A3 Production

The product stages A4-A5, B1-B7, C1, C2, and C4 were not examined in this study.

Once the product has reached the *end-of-waste status*, it is assumed that the product, along with the support wood-based material, will be transferred to biomass incineration for the production of thermal energy and electricity. The resulting effects and credits are declared in module D.

3.3 Estimates and assumptions

The end-of-life system limit between waste disposal and module D is set where outputs such as secondary material or fuel reaches its *end-of-waste status* (/DIN EN 15804/, Section 6.4.3).

3.4 Cut-off criteria

All data from the operational data acquisition has been taken into account. Therefore material flows with a proportion of less than 1% of mass were also included in the assessment. It can therefore be assumed that the sum of disregarded processes does not exceed 5% of the impact categories. The cut-off rules according to /DIN EN 15804/ can therefore be assumed to be met.

3.5 Background data

All relevant background datasets were taken from the database of the /GaBi 6/ software (GABI 6 2013), which is not older than ten years. The data used have been collected subject to consistent time and methodology constraints.

3.6 Data quality

Data recording for the products investigated took place directly at the production site, and refers to the production processes of the financial year from 1.5.2007 to 30.04.2008, on the basis of the questionnaire devised by PE International. The manufacturer-specific data are older than 5 years. However, Fritz EGGER GmbH & Co OG Holzwerkstoffe has confirmed that the production process has not changed since then, and thus these data can be considered as realistic. The input and output data were provided by EGGER and reviewed for plausibility. It can therefore be assumed that the data are highly representative.

3.7 Period under review

The data is representative for the production processes between 01.05.2007 and 30.04.2008

3.8 Allocation

Waste materials from production undergo energy recovery. Energy credits for the electricity and thermal energy produced in the biomass power plant at the end of the lifecycle are allocated according to the heating value of the inputs and based on the efficiency of the

plant. The credit for thermal energy is calculated based on the dataset "DE: Thermische Energie aus Erdgas PE" (DE: Thermal Energy from Natural Gas PE); the credit for electricity is calculated based on the dataset "DE: Strom-Mix PE" (DE: Electricity Mix PE) (GaBi 6 2013).

Since other laminates are produced in Gifhorn in addition to the laminates Flex, MED and Micro and the packaging information refers to the total production quantities, they were allocated according to mass and assigned to the laminates under review. The total laminate quantity was converted to the total mass of produced laminates. The laminates under review

account for 82% of all laminates produced by the plant. As a result, 82% of the packaging quantity was assigned to the laminates under review, which was in turn allocated to the individual laminates based on the quantity produced.

3.9 Comparability

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

4. LCA: Scenarios and additional technical information

The calculated scenario includes the recycling of Egger laminates in a biomass power plant.

End of life (C1-C4)

Name	Value	Unit
Energy recovery	0.203	kg

5. LCA: Results

The following tables show the results of the environmental impact assessment differentiated by CML environment categories, resource utilisation, output flows, and waste categories, scaled to the functional unit of 1 m².

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

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 ¹⁾	Refurbishment ¹⁾	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	MND	MND	X	MND	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT: 1 m² laminate Micro (0.203 kg/m²)

Parameter	Unit	A1-A3	C3	D
Global warming potential	[kg CO ₂ -Eq.]	1.11E+0	3.13E-1	-2.13E-1
Depletion potential of the stratospheric ozone layer	[kg CFC11-Eq.]	3.38E-10	1.12E-12	-3.62E-11
Acidification potential of land and water	[kg SO ₂ -Eq.]	3.56E-3	8.22E-4	-3.13E-4
Eutrophication potential	[kg (PO ₄) ³⁻ -Eq.]	5.62E-4	8.56E-5	-2.75E-5
Formation potential of tropospheric ozone photochemical oxidants	[kg Ethen Eq.]	6.08E-4	3.61E-5	-3.55E-5
Abiotic depletion potential for non fossil resources	[kg Sb Eq.]	1.90E-6	1.68E-9	-1.17E-8
Abiotic depletion potential for fossil resources	[MJ]	2.22E+1	2.09E-1	-3.29E+0

RESULTS OF THE LCA - RESOURCE USE: 1 m² laminate Micro (0.203 kg/m²)

Parameter	Unit	A1-A3	C3	D
Renewable primary energy as energy carrier	[MJ]	3.20E+0	5.21E-3	-1.16E-1
Renewable primary energy resources as material utilization	[MJ]	2.17E+0	0.00E+0	0.00E+0
Total use of renewable primary energy resources	[MJ]	5.37E+0	5.21E-3	-1.16E-1
Non renewable primary energy as energy carrier	[MJ]	2.25E+1	2.17E-1	-3.54E+0
Non renewable primary energy as material utilization	[MJ]	9.35E-1	0.00E+0	0.00E+0
Total use of non renewable primary energy resources	[MJ]	2.34E+1	2.17E-1	-3.54E+0
Use of secondary material	[kg]	0.00E+0	0.00E+0	0.00E+0
Use of renewable secondary fuels	[MJ]	4.38E-3	5.58E-4	-4.00E-4
Use of non renewable secondary fuels	[MJ]	4.58E-4	5.81E-5	-4.19E-5
Use of net fresh water	[m ³]	4.92E-3	5.85E-5	-3.57E-4

RESULTS OF THE LCA – OUTPUT FLOWS AND WASTE CATEGORIES:

1 m² laminate Micro (0.203 kg/m²)

Parameter	Unit	A1-A3	C3	D
Hazardous waste disposed	[kg]	7.48E-3	5.62E-6	0.00E+0
Non hazardous waste disposed	[kg]	1.12E-2	4.56E-3	-6.54E-4
Radioactive waste disposed	[kg]	4.98E-4	3.05E-6	-1.02E-4
Components for re-use	[kg]	IND	IND	IND
Materials for recycling	[kg]	IND	IND	IND
Materials for energy recovery	[kg]	IND	IND	IND
Exported electrical energy	[MJ]	IND	2.60E-1	IND
Exported thermal energy	[MJ]	IND	2.63E+0	IND

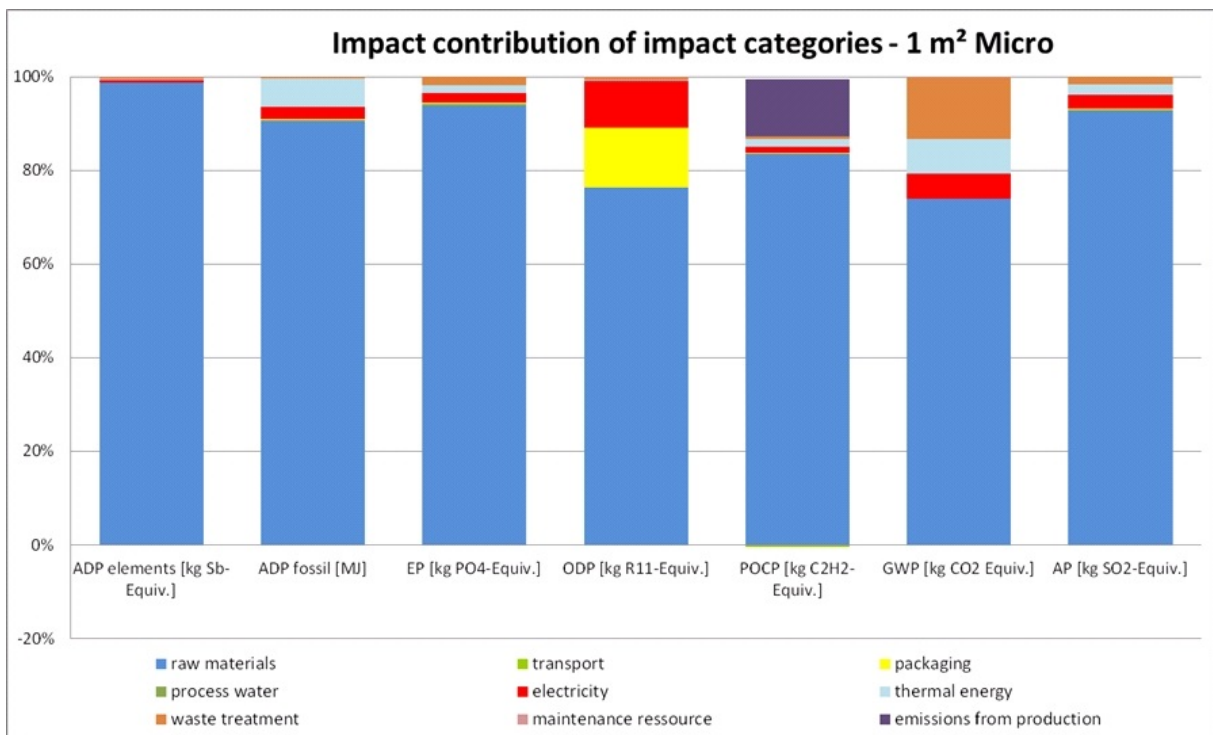
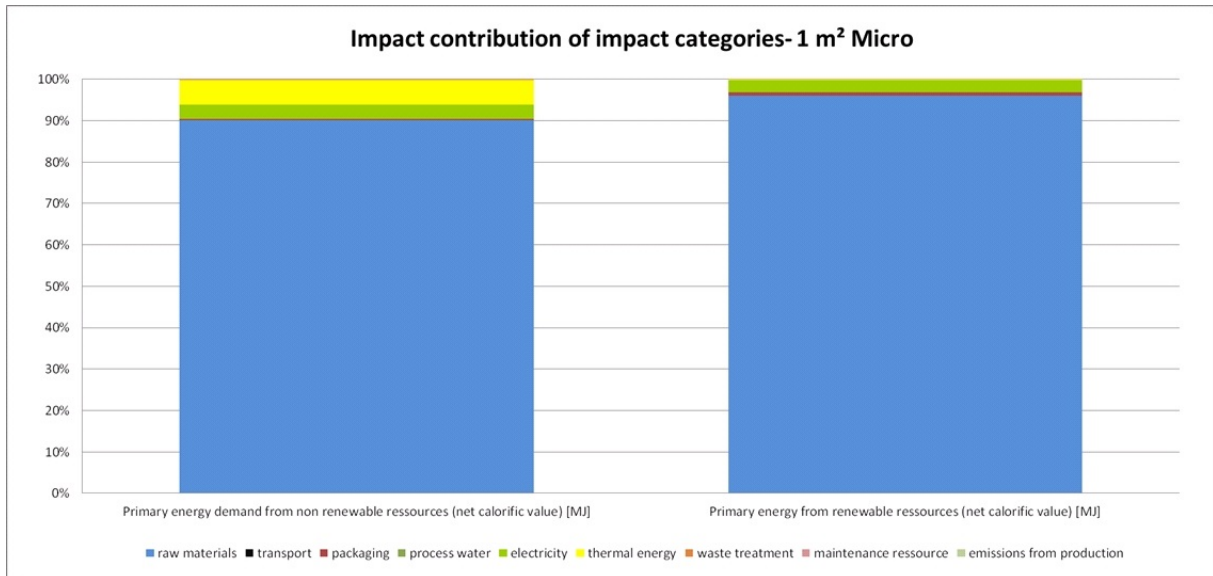
6. LCA: Interpretation

The effect estimation results are only relative statements that do not make any statements about „end points“ of the effect categories, overshooting of limit values, safety margins or about risks. The environmental performance assessment and estimated effects are based on the specifications of the European standard (CML, 2001-Nov 2010). The relevant influences on the various impact categories and the use of primary energy are determined within the scope of a dominance analysis of the environmental performance assessment results for laminates in reference to the declared unit of 1 m². The interpretation was carried out under consideration of the assumptions and restrictions of the EPD as well as the methodology and data. Very high data quality can generally be expected. All primary data from the

operational data acquisition by EGGER GmbH in the year 2007-2008 were taken into account. As a matter of principle, PE International conducts numerous different audits throughout the course of the entire project in order to ensure that the project is realised at a high level of quality. This encompasses an extensive review of the project-specific environmental performance assessment model as well as the underlying datasets that are used. Modelling the environmental impact of Egger laminates is based on certain assumptions and limitations. Waste and waste water occurring during production are reintroduced in the process. Grinding dust and stamping waste resulting during production are transformed in waste incineration systems into thermal energy and electricity. A recycling quota of 100% of the

product is assumed for the *End of Life* (EoL). The model assumes that the product reaches incineration. Thus, the total quantity produced ends up in biomass incineration, where electricity credits such as EU-27 electricity mix are modelled (market share: Germany 38%, Austria 28%, France 9%, the rest is sold within Europe, up to 2% outside Europe). The transport

distances used in the model are based on Egger records. Results for the laminate micro are interpreted below.



Water consumption

The net fresh water consumption for 1 m² of Egger laminate Micro is at 4.92 E-03 m³ water during the product stage (A1-A3). At stage D -3.57E-04 m³. Most of the water consumption results from the net fresh water consumption during decor and kraft paper production (about 70% and 82% of total consumption during production).

Primary energy renewable and non-renewable

The non-renewable demand for primary energy is influenced primarily by the supply of raw materials (90%). The decor paper production has the largest contribution, with a 87% of the non-renewable energy

requirements arising during laminate manufacturing. The thermal energy requirements are the second largest driver, with 5.8% of the primary energy requirements from non-renewable resources. Renewable primary energy reaches 96% in the supply for raw materials.

Waste

The largest proportion of the waste that is produced consists of disposed, non-hazardous waste. Discarded radioactive waste results mainly from decor paper production.

Global warming potential

The global warming potential is dominated by the production of carbon dioxide. Through the use of wood, CO₂ is bound in the renewable raw materials required for production.

74% of emissions relevant for the *global warming potential* (GWP) are due to the supply of raw materials (production of decor paper). Waste processing contributes 13% to the GWP. Due to the credit for bound carbon dioxide, part of the greenhouse gas emissions that are generated is substituted.

Ozone depletion potential

The ozone depletion potential is dominated primarily by the supply of raw materials (76%) and the packaging of laminates (13%). Through the substitution of energy that is used by EGGER laminates at the *end of the life* cycle, the overall ozone depletion potential is reduced. Here, organic emissions containing halogen are responsible for the ozone depletion potential.

Acidification potential

The acidification potential is primarily due to the supply of raw materials (93%), with decor paper production as the main driver. Here, sulphur dioxide, ammonia and nitrogen oxides have the largest share of the acidification potential.

Eutrophication potential

Similar to the acidification potential, the supply of raw materials is responsible for about 94% of the

eutrophication potential of the laminate production. The decor paper production is the main driver in this case as well.

Photochemical oxidant formation potential

The photochemical oxidant formation potential results mainly from emissions from the supply of raw materials (85%) and process emissions (12%). In the supply of raw materials, the production of decor paper is mainly responsible for the photochemical oxidant formation potential. Non-methane volatile organic compounds (NMVOCs) have the largest share of the photochemical oxidant creation potential.

A negative POCP value is presented for transportation. This is due to the NO emissions from transportation. NO is offset against POCP (see image).

Abiotic resource consumption (fossil)

The fossil abiotic resource consumption is above all created through the consumption of non-renewable fossil energy carriers such as for example natural gas, petroleum, and anthracite coal.

The consumption is mainly caused by the supply of raw materials (decor paper production) with a share of 91% and the thermal energy used with a share of 6%.

Abiotic resource consumption (elementary)

The elementary abiotic resource consumption is mainly caused by non-renewable material resources, such as rock salt and colemanite ore.

The consumption results mainly from the production of decor, soda kraft, and kraft paper.

7. Requisite evidence

7.1 Formaldehyde

Measurement authority: WESSLING GmbH, Altenberge

Test report, date: CAL13-091631-3/tec, 17.12.2013

Results: Emission chamber test of wood-based materials / products pursuant to /EN 717-1/. According to the /Chemical Prohibition Ordinance/ Art. 1, Appendix, Paragraph 3, there is a threshold of 0.1 ppm specified for formaldehyde. The investigated board complies with the abovementioned threshold for what regards formaldehyde emissions, as well as with the requirements of formaldehyde class E1.

Measurement authority: Fraunhofer-Institut für Verfahrenstechnik und Verpackung (Fraunhofer Institute for Process Technology and Packaging), Freising

Test report, date: PA/4176/14, 25.3.2014

Results: Determining specific migration according to /EN 1186-5/ and evaluation according to the European Plastics Regulation/ (EU) No. 10/2011/. Egger laminate Micro complies with the threshold for the specific migration of formaldehyde.

7.2 Melamine

Measurement authority: Fraunhofer-Institut für Verfahrenstechnik und Verpackung (Fraunhofer Institute for Process Technology and Packaging), Freising

Test report, date: PA/4232/14, 10.4.2014

Result: Determining specific migration according to /EN 1186-5/ and evaluation according to the European Plastics Regulation/ (EU) No. 10/2011/. Egger laminate Micro complies with the threshold for the specific migration of 2,4,6-triamino-1,3,2-triazine (melamine).

7.3 Total migration

Measurement authority: Fraunhofer-Institut für Verfahrenstechnik und Verpackung (Fraunhofer Institute for Process Technology and Packaging), Freising

Test report, date: PA/4263/14, 02.06.2014

Result: Determining total migration according to /EN 1186-5/ and evaluation according to the European Plastics Regulation/ (EU) No. 10/2011/. EGGER laminate Micro complies with the total migration value in contact with all aqueous and acidic foods.

7.4 Eluate Analysis

Measurement authority: Fraunhofer-Institut für Verfahrenstechnik und Verpackung (Fraunhofer Institute for Process Technology and Packaging), Freising

Test report, date: PA/4533/13, Part 2, 15.11.2013.

Results: The investigated laminate Micro complies with the maximum extraction thresholds for arsenic, barium, cadmium, chromium, mercury, lead, antimony and selenium listed in Toys Standard /EN 71-3/.

7.5 Phenol

Measurement authority: WESSLING GmbH, Altenberge

Test report, date:

CAL13-091631-3/tec, 17.12.2013.

Result: Analysis for phenols pursuant to the /VDI Guideline 3485/. The product fulfils the requirement of the testing criterion regarding emissions test chamber investigation of /RAL-UZ 76/ for phenol.

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DIN EN ISO 14044:2006-10, Environmental management - Life cycle assessment - Principles and framework (ISO 14040:2006); German and English version EN ISO 14044:2006

DIN EN 438-1:2016, High-pressure decorative laminates (HPL) - Sheets based on thermosetting resins (usually called laminates) - Part 1: Introduction and general information.

DIN EN 438-2:2016, High-Pressure Decorative Laminates (HPL) – Sheets based on thermosetting resins (usually called laminates) - Part 2: Determination of properties.

DIN EN 438-3:2016, High-Pressure Decorative Laminates (HPL) – Sheets based on thermosetting resins (usually called laminates) - Part 3: Classification and specifications for laminates less than 2 mm thick intended for bonding to supporting substrates.

DIN EN ISO 14001:2015, Environmental management

systems - Requirements with guidance for use.

DIN CEN/TS 13130-23:2005, Materials and articles in contact with foodstuffs – Plastics substances subject to limitation.

DIN CEN/TS 13130-27:2005-05, Materials and articles in contact with foodstuffs – Plastics substances subject to limitation.

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