

ENVIRONMENTAL PRODUCT DECLARATION

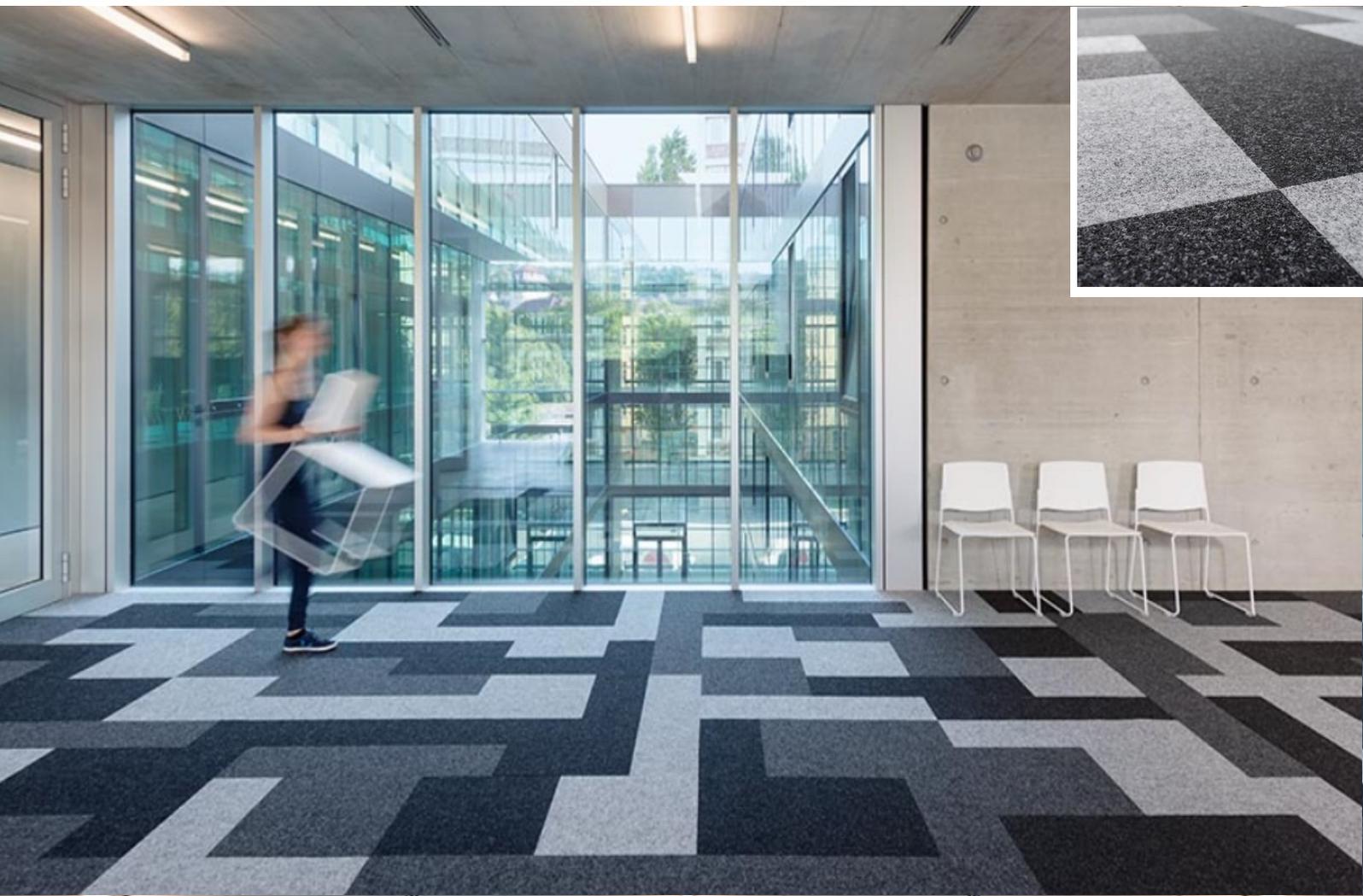
as per ISO 14025 and EN 15804+A1

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|--------------------------|--------------------------------------|
| Owner of the Declaration | Findeisen GmbH |
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Needle felt floor covering
use layer made of polyamide 6.10
with a maximum use layer weight of 700 g/m²

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General Information

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| <p>FINDEISEN</p> <hr/> <p>Programme holder IBU – Institut Bauen und Umwelt e.V. Panoramastr. 1 10178 Berlin Germany</p> <hr/> <p>Declaration number EPD-FND-20200146-CCC1-EN</p> <hr/> <p>This declaration is based on the product category rules: Floor coverings, 02/2018 (PCR checked and approved by the SVR)</p> <hr/> <p>Issue date 14.09.2020</p> <hr/> <p>Valid to 13.09.2025</p> | <p>Needle felt floor covering use layer made of polyamide 6.10 with a maximum use layer weight of 700 g/m²</p> <hr/> <p>Owner of the declaration Findeisen GmbH Bulacher Straße 53 76275 Ettlingen Germany</p> <hr/> <p>Declared product / declared unit 1 m² needle felt floorcovering with a use layer made of polyamide 6.10</p> <hr/> <p>Scope: The manufacturer declaration applies to a group of similar products with a maximum use layer weight of 700 g/m². The products are produced in the Findeisen manufacturing site in Ettlingen, Germany. LCA results for products with a maximum use layer weight of 520 g/m² can be taken from the corresponding tables of the annexe. Specific data for every product within the declared group of products in relation to its use layer weight can be calculated by using equation 1 given in the annexe (see annexe chapter: 'General Information on the annexe'). The declaration is only valid in conjunction with a valid GUT-PRODIS license of the product.</p> <p>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. The EPD was created according to the specifications of EN 15804+A1. In the following, the standard will be simplified as EN 15804.</p> <hr/> <p>Verification</p> <table border="1"> <tr> <td colspan="2">The standard EN 15804 serves as the core PCR</td> </tr> <tr> <td colspan="2">Independent verification of the declaration and data according to ISO 14025:2010</td> </tr> <tr> <td><input type="checkbox"/> internally</td> <td><input checked="" type="checkbox"/> externally</td> </tr> </table> | The standard EN 15804 serves as the core PCR | | Independent verification of the declaration and data according to ISO 14025:2010 | | <input type="checkbox"/> internally | <input checked="" type="checkbox"/> externally |
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| <p></p> <hr/> <p>Dipl. Ing. Hans Peters (chairman of Institut Bauen und Umwelt e.V.)</p> | <p></p> <hr/> <p>Angela Schindler (Independent verifier appointed by SVR)</p> | | | | | | |
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Product

Product description/Product definition

Needle felt floor covering with a use layer made of solution-dyed polyamide 6.10 and a base layer made of recycled torn fibres. The polyamide 6.10 fibres contain renewable raw materials. The recycled content out of total weight amounts to 37 %.

The declaration applies to a group of products with a maximum use layer weight of 700 g/m². The calculations refer to a textile floor covering with this maximum use layer weight.

LCA results for products with a maximum use layer weight of 520 g/m² can be taken from the corresponding tables of the annexe.

Results for specific products with any other use layer weight can be calculated by using equation 1 given in the annexe (see annexe chapter: 'General Information on the annexe').

For the placing on the market of the product in the European Union/European Free Trade Association (EU/EFTA) (with the exception of Switzerland) Regulation (EU) No. 305/2011 Construction Product Regulation (CPR) applies. The product needs a Declaration of Performance (DoP) taking into consideration EN 14041 and the CE-marking. The DoP of the product can be found on the manufacturer's technical information section. For the application and

use of the product the respective national provisions apply.

Application

According to the use class as defined in *EN 1307* the products can be used in professional or private areas. The use class of the product can be taken from the manufacturer's technical information section.

Technical Data

The performance data listed in the DoP apply.

| Name | Value | Unit |
|--|---|------------------|
| Type of manufacture | Needle felt textile floor covering, type A3 | - |
| Product Form | Rolls of 2 m width or modules 50cm x 50cm or 100cm x 25cm | - |
| Material of the use layer | Solution dyed polyamide 6.10 | |
| Use layer weight | 700 | g/m ² |
| Secondary backing | Finish | - |
| Total weight of the textile floor covering | 1650 | g/m ² |

Performance data of the product in accordance with the declaration of performance with respect to its essential characteristics according to *EN 14041*. Additional product properties in accordance with *EN 1307* can be found on the Product Information System *PRODIS* using the *PRODIS* registration number of the product (www.pro-dis.info) or on the manufacturer's technical information section (www.nadelvlies.de).

Base materials/Ancillary materials

| Name | Value | Unit |
|------------------------------|-------|------|
| Polyamide 6.10 | 42.4 | % |
| Polypropylene | 2.9 | % |
| Recycled mixed fibres | 36.5 | % |
| Ethylene vinyl acetate (EVA) | 18.2 | % |

The products are registered in the GUT-*PRODIS* Information System. The *PRODIS* system ensures the compliance with limitations of various chemicals and Volatile Organic Compound (VOC)-emissions and a ban on the use of all substances that are listed as 'Substances of Very High Concern' (SVHC) under *REACH*.

This product contains substances listed in the *REACH* candidate list (27.06.2018) exceeding 0.1 percentage by mass: no

Reference service life

A calculation of the reference service life according to *ISO 15686* is not possible.

The service life of textile floor coverings strongly depends on the correct installation taking into account the declared use classification and the adherence to cleaning and maintenance instructions.

A minimum service life of 10 years can be assumed, technical service life can be considerably longer.

LCA: Calculation rules

Declared Unit

| Name | Value | Unit |
|---------------------------|-------|-------------------|
| Declared unit | 1 | m ² |
| Conversion factor to 1 kg | 0.61 | - |
| Mass reference | 1.65 | kg/m ² |

The declared unit refers to 1 m² produced textile floor covering. The output of module A5 'Assembly' is 1 m² installed textile floor covering.

System boundary

Type of EPD: Cradle-to-grave

System boundaries of modules A, B, C, D:

Modules C3, C4 and D are indicated separately for three end-of-life scenarios:

- 1 - landfill disposal
- 2 - municipal waste incineration
- 3 - recovery in a cement plant

A1-A3 Production:

Energy supply and production of the basic material, processing of secondary material, auxiliary material, transport of the material to the manufacturing site, emissions, waste water treatment, packaging material and waste processing up to the landfill disposal of residual waste (except radioactive waste). Benefits for generated electricity and steam due to the incineration of production waste are aggregated. Biogenic carbon

that is stored in renewable material (PA 6.10, paper) is taken into account as well as the associated carbon dioxide uptake from the air from which this biogenic carbon comes. The same principle was used for recycled renewable material (waste paper).

A4 Transport:

Transport of the packed textile floor covering from factory gate to the place of installation.

A5 Installation:

Installation of the textile floor covering, processing of installation waste and packaging waste up to the landfill disposal of residual waste (except radioactive waste), the production of the amount of floor covering that occurs as installation waste including its transport to the place of installation.

Generated electricity and steam due to the incineration of waste are listed in the result table as exported energy.

Biogenic carbon that is stored in renewable materials in the installation waste and in the packaging material is released as carbon dioxide emissions into the air at the end of life in module A5.

Preparation of the floor and auxiliary materials (adhesives, fixing agents, PET connectors) are beyond the system boundaries and not taken into account.

B1 Use:

Indoor emissions during the use stage. After the first year, no product-related Volatile Organic Compound

(VOC) emissions are relevant due to known VOC decay curves of the product.

B2 Maintenance:

Cleaning of the textile floor covering for a period of 1 year:

Vacuum cleaning – electricity supply
Wet cleaning – electricity, water consumption, production of the cleaning agent, waste water treatment.

The declared values in this module have to be multiplied by the assumed service life of the floor covering in the building in question.

B3 - B7:

The modules are not relevant and therefore not declared.

C1 De-construction:

The floor covering is de-constructed manually and no additional environmental impact is caused.

C2 Transport:

Transport of the floor covering waste to a landfill, to the municipal waste incineration plant (MWI) or to the waste collection facility for recycling.

C3 Waste processing:

C3-1: Landfill disposal needs no waste processing.
C3-2: Impact from waste incineration (plant with $R1 > 0.6$), generated electricity and steam are listed in the result table as exported energy. The biogenic carbon that is stored in the renewable materials of the floor covering is released into the air as carbon dioxide emissions.
C3-3: Collection of the used floor covering, waste processing (granulating). The biogenic carbon that is stored in the renewable materials of the floor covering is released into the air as carbon dioxide emissions.

C4 Disposal

C4-1: Impact from landfill disposal. The biogenic carbon that is stored in the renewable materials of the floor covering is released into the air as carbon dioxide emissions.

C4-2: The floor covering waste leaves the system in module C3-2,

C4-3: The pre-processed floor covering waste leaves the system in module C3-3.

D Recycling potential:

Calculated benefits result from materials exclusive secondary materials (net materials).

D-A5: Benefits for generated energy due to incineration of packaging and installation waste (incineration plant with $R1 > 0.6$),

D-1: Benefits for generated energy due to landfill disposal of floor covering waste at the end-of-life,

D-2: Benefits for generated energy due to incineration of floor covering waste at the end-of-life (incineration plant with $R1 > 0.6$),

D-3: Benefits for saved fossil energy and saved inorganic material due to recovery of the textile floor covering in a cement plant at the end-of-life, transport from the reprocessing plant to the cement kiln.

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.

Background data are taken from the *GaBi database 2020*, service pack 40. Remaining data gaps are covered by the *ecoinvent 3.6* database.

LCA: Scenarios and additional technical information

The following information refer to the declared modules and are the basis for calculations or can be used for further calculations.

The indicated values refer to the declared functional unit of all products with a use layer weight up to 700 g/m².

Transport to the construction site (A4)

| Name | Value | Unit |
|---|--------|---------|
| Litres of fuel (truck, EURO 0-6 mix) | 0.0039 | l/100km |
| Transport distance | 700 | km |
| Capacity utilisation (including empty runs) | 55 | % |

Installation in the building (A5)

| Name | Value | Unit |
|---------------|-------|------|
| Material loss | 0.15 | kg |

Polyethylene packaging waste and installation waste are considered to be incinerated in a municipal waste incineration plant. Cardboard is going to be recycled. Preparation of the floor and auxiliaries (adhesives, fixing agents, PET connectors etc.) are not taken into account.

Maintenance (B2)

The values for cleaning refer to 1 m² floor covering used in commercial areas per year. Depending on the application based on *ISO 10874*, the

technical service life recommended by the manufacturer and the anticipated strain on the floor by customers, the case-specific useful life can be established. The effects of Module B2 need to be calculated based on the useful life to obtain the overall environmental impacts.

| Name | Value | Unit |
|-------------------------------------|-------|----------------|
| Maintenance cycle (wet cleaning) | 0.9 | 1/year |
| Maintenance cycle (vacuum cleaning) | 156 | 1/year |
| Water consumption (wet cleaning) | 0.003 | m ³ |
| Cleaning agent (wet cleaning) | 0.06 | kg |
| Electricity consumption | 0.326 | kWh |

Further information on cleaning and maintenance see www.nadelvlies.de

End of Life (C1-C4)

Three different end-of-life scenarios are declared and the results are indicated separately in module C. Each scenario is calculated as a 100% scenario.

Scenario 1: 100% landfill disposal

Scenario 2: 100% municipal waste incineration (MWI) with $R1 > 0.6$

Scenario 3: 100% recycling in the cement industry

If combinations of these scenarios have to be calculated this should be done according to the following scheme:

EOL-impact = x% impact (Scenario 1)
 + y% impact (Scenario 2)
 + z% impact (Scenario 3)
 with x% + y% + z% = 100%

| Name | Value | Unit |
|--|-------|------|
| Collected as mixed construction waste (scenario 1 and 2) | 1.65 | kg |
| Collected separately (scenario 3) | 1.65 | kg |
| Landfilling (scenario 1) | 1.65 | kg |
| Energy recovery (scenario 2) | 1.65 | kg |
| Energy recovery (scenario 3) | 1.65 | kg |
| Recycling (scenario 3) | 0 | kg |

Reuse, recovery and/or recycling potentials (D), relevant scenario information

Recovery or recycling potentials due to the three end-of-life scenarios (module C) are indicated separately.

Recycling in the cement industry (scenario 3)

The organic material of the textile floor covering is used as secondary fuel in a cement kiln. It mainly substitutes for lignite (64.5%), hard coal (26.5%) and petrol coke (9.0%) VDZ e.V.

LCA: Results

The results refer to all declared products with a maximum use layer weight of 700 g/m². LCA results for products with a maximum use layer weight of 520 g/m² can be taken from the corresponding tables of the annex. Results for specific products with any other use layer weight can be calculated by using equation 1 given in the annex (see annex chapter: 'General Information on the annex'). The declared result figures in module B2 have to be multiplied by the assumed service life (in years) of the floor covering in the building under consideration.

Information on un-declared modules:

Modules B3 - B7 are not relevant during the service life of the textile floor covering and are therefore not declared. Modules C1, C3/1, C4/2 and C4/3 cause no additional impact (see "LCA: Calculation rules") and are therefore not declared. Module C2 represents the transport for scenarios 1, 2 and 3. Column D represents module D/A5. The CML characterisation factors version January 2016 are applied.

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE 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 | X | X | X | X | MNR | MNR | MNR | MND | MND | MND | X | X | X | X | |

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A1: 1 m² textile floor covering

| Parameter | Unit | A1-A3 | A4 | A5 | B1 | B2 | C2 | C3/2 | C3/3 | C4/1 | D | D/1 | D/2 | D/3 |
|-----------|---|----------|----------|----------|---------|---------|----------|----------|----------|----------|-----------|---------|-----------|-----------|
| GWP | [kg CO ₂ -Eq.] | 7.09E+0 | 1.00E-1 | 1.18E+0 | 0.00E+0 | 2.32E-1 | 5.46E-3 | 4.63E+0 | 1.13E+0 | 1.23E+0 | -8.92E-2 | 0.00E+0 | -9.32E-1 | -2.10E-1 |
| ODP | [kg CFC11-Eq.] | 1.55E-12 | 1.65E-17 | 1.39E-13 | 0.00E+0 | 7.40E-9 | 8.97E-19 | 6.86E-16 | 2.71E-16 | 3.61E-16 | -1.27E-15 | 0.00E+0 | -1.32E-14 | -7.96E-16 |
| AP | [kg SO ₂ -Eq.] | 3.78E-2 | 4.22E-4 | 3.65E-3 | 0.00E+0 | 8.20E-4 | 2.30E-5 | 2.31E-3 | 1.90E-5 | 3.02E-4 | -1.13E-4 | 0.00E+0 | -1.18E-3 | -6.70E-4 |
| EP | [kg (PO ₄) ³ -Eq.] | 2.31E-2 | 1.06E-4 | 2.14E-3 | 0.00E+0 | 2.06E-4 | 5.78E-6 | 5.90E-4 | 2.10E-6 | 3.15E-4 | -1.40E-5 | 0.00E+0 | -1.47E-4 | -7.91E-5 |
| POCP | [kg ethene-Eq.] | 1.26E-3 | -1.78E-4 | 1.10E-4 | 6.29E-5 | 9.84E-5 | -9.70E-6 | 1.40E-4 | 1.35E-6 | 3.41E-5 | -1.03E-5 | 0.00E+0 | -1.07E-4 | -1.10E-4 |
| ADPE | [kg Sb-Eq.] | 4.68E-6 | 8.46E-9 | 4.26E-7 | 0.00E+0 | 2.72E-6 | 4.61E-10 | 4.03E-8 | 3.03E-9 | 2.15E-8 | -1.67E-8 | 0.00E+0 | -1.75E-7 | -2.02E-8 |
| ADPF | [MJ] | 1.30E+2 | 1.36E+0 | 1.19E+1 | 0.00E+0 | 4.71E+0 | 7.44E-2 | 1.15E+0 | 1.00E-1 | 1.66E+0 | -1.25E+0 | 0.00E+0 | -1.31E+1 | -3.40E+1 |

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 according to EN 15804+A1: 1 m² textile floor covering

| Parameter | Unit | A1-A3 | A4 | A5 | B1 | B2 | C2 | C3/2 | C3/3 | C4/1 | D | D/1 | D/2 | D/3 |
|-----------|-------------------|---------|---------|----------|---------|---------|---------|----------|----------|---------|----------|---------|----------|----------|
| PERE | [MJ] | 6.61E+1 | 7.69E-2 | 7.56E+0 | 0.00E+0 | 1.16E+0 | 4.19E-3 | 1.52E+1 | 1.51E+1 | 1.20E-1 | -3.37E-1 | 0.00E+0 | -3.52E+0 | -1.88E-1 |
| PERM | [MJ] | 1.52E+1 | 0.00E+0 | -2.13E-1 | 0.00E+0 | 0.00E+0 | 0.00E+0 | -1.50E+1 | -1.50E+1 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 |
| PERT | [MJ] | 8.14E+1 | 7.69E-2 | 7.34E+0 | 0.00E+0 | 1.16E+0 | 4.19E-3 | 1.56E-1 | 7.19E-2 | 1.20E-1 | -3.37E-1 | 0.00E+0 | -3.52E+0 | -1.88E-1 |
| PENRE | [MJ] | 1.16E+2 | 1.37E+0 | 1.29E+1 | 0.00E+0 | 5.75E+0 | 7.46E-2 | 2.45E+1 | 2.34E+1 | 1.71E+0 | -1.54E+0 | 0.00E+0 | -1.61E+1 | -3.41E+1 |
| PENRM | [MJ] | 2.34E+1 | 0.00E+0 | -1.47E-1 | 0.00E+0 | 0.00E+0 | 0.00E+0 | -2.33E+1 | -2.33E+1 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 |
| PENRT | [MJ] | 1.39E+2 | 1.37E+0 | 1.28E+1 | 0.00E+0 | 5.75E+0 | 7.46E-2 | 1.25E+0 | 1.62E-1 | 1.71E+0 | -1.54E+0 | 0.00E+0 | -1.61E+1 | -3.41E+1 |
| SM | [kg] | 6.99E-1 | 0.00E+0 | 6.29E-2 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 |
| RSF | [MJ] | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 1.50E+1 |
| NRSF | [MJ] | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 2.33E+1 |
| FW | [m ³] | 2.94E+0 | 8.90E-5 | 2.66E-1 | 0.00E+0 | 3.09E-3 | 4.85E-6 | 8.34E-3 | 8.31E-5 | 2.10E-5 | -3.91E-4 | 0.00E+0 | -4.08E-3 | -2.77E-3 |

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 AND WASTE CATEGORIES according to EN 15804+A1:

1 m² textile floor covering

| Parameter | Unit | A1-A3 | A4 | A5 | B1 | B2 | C2 | C3/2 | C3/3 | C4/1 | D | D/1 | D/2 | D/3 |
|-----------|------|---------|---------|---------|---------|----------|---------|---------|----------|---------|-----------|---------|----------|----------|
| HWD | [kg] | 1.56E-7 | 6.37E-8 | 2.01E-8 | 0.00E+0 | 9.83E-10 | 3.47E-9 | 1.24E-9 | 6.71E-11 | 6.25E-9 | -6.14E-10 | 0.00E+0 | -6.41E-9 | 2.00E-9 |
| NHWD | [kg] | 1.18E-1 | 2.10E-4 | 1.67E-2 | 0.00E+0 | 4.11E-3 | 1.14E-5 | 6.69E-2 | 1.15E-4 | 1.64E+0 | -7.13E-4 | 0.00E+0 | -7.44E-3 | -7.48E-4 |
| RWD | [kg] | 3.79E-3 | 1.69E-6 | 3.45E-4 | 0.00E+0 | 3.51E-4 | 9.24E-8 | 4.20E-5 | 2.46E-5 | 2.07E-5 | -1.15E-4 | 0.00E+0 | -1.20E-3 | -4.99E-5 |
| CRU | [kg] | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 |
| MFR | [kg] | 2.93E-3 | 0.00E+0 | 7.60E-2 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 |
| MER | [kg] | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 1.65E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 |
| EEE | [MJ] | 0.00E+0 | 0.00E+0 | 5.72E-1 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 6.09E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 |
| EET | [MJ] | 0.00E+0 | 0.00E+0 | 1.03E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 1.09E+1 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 | 0.00E+0 |

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 electrical energy; EEE = Exported thermal energy

Information on the biogenic carbon content:

The textile floor covering contains renewable material with stored biogenic carbon in the PA 6.10 fibres. The share of renewable material is calculated as 67% of the PA 6.10. During the growth phase of plants carbon dioxide (CO₂) is absorbed and transformed into stored biogenic carbon.

This amount of CO₂ uptake is taken into account in module A1-A3 as a negative value that reduces the total amount of the GWP. At the end-of-life the same amount of CO₂ is released into the air as emissions. These CO₂ emissions increase the amount of the GWP in the three scenarios landfill disposal, municipal incineration and recovery in the cement industry. Regarding the CO₂ balance recycled renewable materials are treated in the same way as non-recycled renewable materials.

Biogenic carbon content per m² textile floor covering: 0.31 kg C

Corresponding carbon dioxide uptake/emissions: 1.12 kg CO₂

References

EN 1307

DIN EN 1307: 2014+A1:2016: Textile floor coverings - Classification

EN 13501-1

DIN EN 13501-1:2010-01: Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests

EN 14041

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EN 15804

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