

Grafrey Hirst

Feltex

 Mohawk Group



COMMERCIAL



SDN Carpet Tile with Enviro Bac[®] EPD

**ENVIRONMENTAL PRODUCT
DECLARATION IN ACCORDANCE
WITH ISO 14025 AND EN
15804+A2**

Program:

Institut Bauen und Umwelt e.V. (IBU)

EPD Registration number:

EPD-GHC-20240007-CBA1-EN

Publication date:

28 February 2025

Valid until:

27 February 2030

Version:

1.0 ([0425])

GH Commercial's Climate Action.

SUSTAINABILITY IS A CORE VALUE FOR GH COMMERCIAL.

In addition to being a house of market leading brands GH Commercial is privileged to draw on over 160 years manufacturing experience in Australia and New Zealand giving us a unique understanding of our products and their impacts.

As a key pillar of our Believe in Better® approach to sustainability, we are committed to a climate-positive future through our decarbonisation strategy.



GH Commercial is committed to contributing to its group SBTi 2030 greenhouse gas emissions reductions targets against a 2020 baseline.

CURRENT:



Since 2020, we have made significant progress in reducing our scope 1 and 2 greenhouse gas emissions. At the end of 2024, we had achieved a 34% reduction putting us well on track to meet our 2030 target. We are also committed to reducing our scope 3 emissions and the embodied carbon in our products, which is one of the reasons why we have undertaken life cycle assessments and are publishing this EPD.

OUR TARGETS:



We recognise that Life Cycle Assessments, and this LCA-based Environmental Product Declaration, are important tools for ensuring our clients and specifiers have the transparent product information they need to make informed and more sustainable decisions.

We are proud to be able to provide you with this level of transparent product information, in addition to our other certifications.

Benefits of this EPD.

This EPD can contribute to the achievement of credit points under leading green building rating schemes, including Green Star.

This EPD may help to contribute up to 5 points of Responsible Product Value.



Declared Unit.

This EPD provides data for one square meter (1 m²) of Solution-dyed nylon with a Maximum total pile weight of 746 g/m², 100% polyamide 6 with Enviro Bac®

LCA results for products with the lowest total pile weight of 542 g/m² can be taken from the corresponding tables of the annexe of the EPD. Results for specific products with any other total pile weight can be calculated by using equation 1 given in the annexe (see annexe chapter: 'General Information on the annexe').

In the following table, we have undertaken those calculations to show the A1-A3 GWP result for each of our SDN Carpet Tile with Enviro Bac® product offerings.

Embodied carbon in our SDN Carpet Tile with Enviro Bac® products.

Pile Weight		GWP (kg CO _{2eq})
Oz	Grams per m ²	
16	542	7.03
17	576	7.31
18	610	7.60
20	678	8.16
21	712	8.45
22	746	8.73

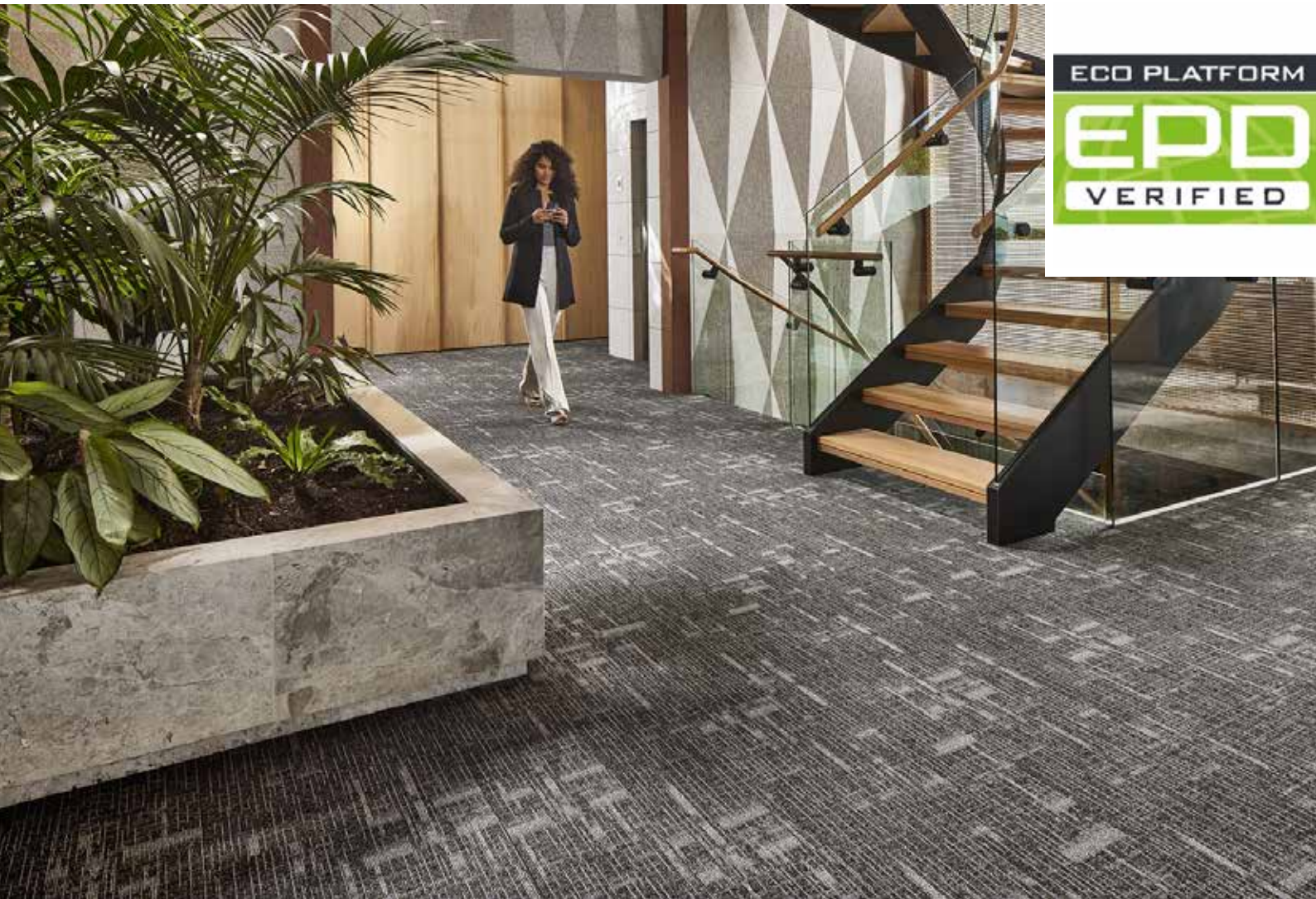
ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A2

Owner of the Declaration	GH Commercial
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-GHC-20240007-CBA1-EN
Issue date	28.02.2025
Valid to	27.02.2030

Tufted carpet tiles – Solution-dyed nylon with a Maximum total pile weight of 746 g/m², 100% polyamide 6 with Enviro Bac®
GH Commercial

www.ibu-epd.com | <https://epd-online.com>



General Information

GH Commercial

Programme holder

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

Declaration number

EPD-GHC-20240007-CBA1-EN

This declaration is based on the product category rules:

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

Issue date

28.02.2025

Valid to

27.02.2030



Dipl.-Ing. Hans Peters
(Chairman of Institut Bauen und Umwelt e.V.)



Florian Pronold
(Managing Director Institut Bauen und Umwelt e.V.)

Tufted carpet tiles – Solution-dyed nylon with a Maximum total pile weight of 746 g/m², 100% polyamide 6 with Enviro Bac®

Owner of the declaration

GH Commercial
Factories Road 7
3220 South Geelong Victoria
Australia

Declared product / declared unit

1 m² tufted carpet tiles having a pile material of polyamide 6 and a bitumen-based heavy backing.

Scope:

The manufacturer declaration applies to a group of similar products with a maximum total pile weight of 746 g/m².

The carpet is manufactured at the GH(Godfrey Hirst) Commercial production site in Victoria, Australia.

LCA results for products with the lightest total pile weight of 542 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 total pile 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 license from ACCS (Licence number: 1012 ; Label number: 21167).

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+A2. In the following, the standard will be simplified 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	
☐	internally
☒	externally



Angela Schindler,
(Independent verifier)

Product

Product description/Product definition

Tufted carpet tiles having a pile material of solution-dyed polyamide 6, a bitumen-based backing and a PET secondary scrim.

The declaration applies to a group of products with a maximum total pile weight of 746 g/m².

LCA results for products with the lowest total pile weight of 542 g/m² can be taken from the corresponding tables of the annexe. Results for specific products with any other total pile weight can be calculated by using equation 1 given in the annexe (see annexe chapter: 'General Information on the annexe').

There are no mandatory regional requirements to place a carpet on the market in Australia and New Zealand. For the application and use of the product the respective national provisions apply.

Application

According to the Australian Carpet Classification Scheme (ACCS) the products can be used in the contract market. Carpet qualities are classified under the ACCS labelling system according to their ability to perform to expected traffic loadings in standard site conditions. For the contract market, the highest rating is 4 stars. CIAL (Carpet Institute of Australia Limited).

Technical Data

Name	Value	Unit
Product Form	Tiles 304.8mm x 914.4mm	-
Type of manufacture	Tufted carpet	-
Yarn type	Polyamide 6	-
Colouration	Solution dyed	-
Primary backing	Polyester 50% recycled	-
Secondary backing	Polyester	-
Total pile weight	max. 746	g/m ²
Total carpet weight	max. 3356	g/m ²

The Australian Carpet Classification Scheme (ACCS), is a national carpet grading scheme covering all types of carpet and

all carpet fibres. ACCS carpets are independently tested according to established procedures and internationally recognised tests (see <http://carpetinstitute.com.au>). Additional product properties in accordance with the Australian Carpet Classification Scheme can be found in the manufacturer's technical information section (www.ghcommercial.com).

Base materials/Ancillary materials

Name	Value	Unit
Polyamide 6	22,2	%
Polyester	6,3	%
Bitumen	15,8	%
Limestone	50,7	%
SBS Copolymer	1,2	%
SBR Latex	3,7	%
Additives	0,1	%

The recycled content based on the total weight of the product amounts to a minimum of 1,9%.

This product contains substances listed in the *ECHA candidate list* (21.01.2025) or other carcinogenic, mutagenic or reprotoxic (CMR) substances in categories 1A or 1B which are not on the candidate list exceeding 0.1 percentage by mass: no
The products are registered in the ACCS System. The ACCS system ensures 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*.

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 15 years can be assumed based on the guarantee of the producer.

LCA: Calculation rules

Declared Unit

Name	Value	Unit
Declared unit	1	m ²
Grammage	3.356	kg/m ²
Layer thickness	0.0075	m

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-gate with options, modules C1-C4, module D, and additional modules A4, A5, B1, B2.

System boundaries of modules A, B, C, D: Modules C3, C4 and D are indicated separately for three end-of-life scenarios:

- 0 - landfill disposal (columns C3, C4, D)
- 1 - municipal waste incineration (columns C3/1, C4/1, D/1)
- 2 - recovery in a cement plant (columns C3/2, C4/2, D/2)

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 landfill disposal of residual waste (except radioactive waste).

Electricity mix: GWP_{total} (AU: Grid Mix): 0,796 kg CO₂ eq. / kWh, GWP_{total} (AU: Electricity from photovoltaik): 0,0224 kg CO₂ eq. / kWh

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 carpet that occurs as installation waste including its transport to the place of installation. 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 the 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 - B5:

The modules are not relevant within the assumed reference service life of 15 years.

B6 - B7:

No energy and water input are required for the operation of the carpet in the use stage. The modules are not relevant and not declared.

C1 De-construction:

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

C2 Transport:

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

C3 Waste processing:

C3-0: Landfill disposal needs no waste processing.

C3-1: Impact from waste incineration (plant with $R1 > 0.6$), generated electricity and steam are listed in the result table as exported energy.

C3-2: Collection of the carpet waste for recovery in the cement industry, waste processing (granulating), transport to the cement plant and emissions from the incineration.

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:

C4-0: Impact from landfill disposal,

C4-1: The carpet waste leaves the system in module C3-1,

C4-2: The pre-processed carpet waste leaves the system in module C3-2.

D Recycling potential: Calculated benefits result from materials exclusive secondary materials (net materials).

D-0: Benefits for generated energy due to landfill disposal of carpet waste at the end of life,

D-1: Benefits for generated energy due to incineration of carpet waste at the end-of-life (incineration plant with $R1 > 0.6$),

D-2: Benefits for saved fossil energy and saved inorganic material due to recovery of the carpet in a cement plant.

D-A5 (declared as D/3 in the results table): Benefits for generated energy due to landfill disposal of carpet waste at the installation phase.

Geographic Representativeness

Land or region, in which the declared product system is manufactured, used or handled at the end of the product's lifespan: Australia

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 *Sphera MLC (fka GaBi) CUP 2024-1*. Remaining data gaps are covered by the *ecoinvent 3.9* database 2022.

LCA: Scenarios and additional technical information

Characteristic product properties of biogenic carbon

Information on describing the biogenic Carbon Content at factory gate

Name	Value	Unit
Biogenic carbon content in product	-	kg C
Biogenic carbon content in accompanying packaging	0.056	kg C

Note: 1 kg of biogenic carbon is equivalent to 44/12 kg of CO₂.

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 max. total pile weight of 746 g/m².

Transport to the construction site (A4)

Name	Value	Unit
Litres of fuel (truck, EURO 0-6 mix)	0.0093	l/100km
Transport distance for truck	909	km
Transport distance for ship	365	km
Capacity utilisation (including empty runs)	55	%
Gross density of products transported	447	kg/m ³

Installation in the building (A5)

Name	Value	Unit
Material loss	0.101	kg

Polyethylene packaging waste and installation waste are considered to be destined for landfill. Cardboard packaging waste 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.

Based on this useful life the effects of Module B2 need to be calculated in order to obtain the overall environmental impacts.

Name	Value	Unit
Maintenance cycle (wet cleaning)	1.5	1/year
Maintenance cycle (vacuum cleaning)	208	1/year
Water consumption (wet cleaning)	0.0044	m ³
Cleaning agent (wet cleaning)	0.09	kg
Electricity consumption	0.314	kWh

Further information on cleaning and maintenance see www.ghcommercial.com

Reference service life

Name	Value	Unit
Life Span (according to BBSR)	15	a
Declared product properties (at the gate) and finishes	Corresponds to the specifications of EN 1307	-
An assumed quality of work, when installed in accordance with the manufacturer's instructions	Conforms to the manufacturer's instructions	-
Usage conditions, e.g. frequency of use, mechanical exposure	Use in areas defined by use class according to EN 1307	-
Maintenance e.g. required frequency, type and quality and replacement of components	According to manufacturer's instructions	-

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 0: 100 % landfill disposal

Scenario 1: 100 % municipal waste incineration (MWI) with R1>0.6

Scenario 2: 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 0)

+ y % impact (Scenario 1)

+ z % impact (Scenario 2)

with x % + y % + z % = 100 %

Name	Value	Unit
Collected as mixed construction waste (scenario 0 and 1)	3.356	kg
Collected separately waste type (scenario 2)	3.356	kg
Landfilling (scenario 0)	3.356	kg
Energy recovery (scenario 1)	3.356	kg
Energy recovery (scenario 2)	1.653	kg
Recycling (scenario 2)	1.703	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 2) VDZ e.V.

The organic material of the floor covering is used as an alternative fuel in a cement kiln. It mainly substitutes for lignite (68.8 %), hard coal (23.6 %) and petrol coke (7.6 %). The inorganic material is substantially integrated into the cement clinker and substitutes for original material input.

Column D/3 represents module D/A5.

LCA: Results

The LCA results refer to all declared products with a maximum total pile weight of 746 g/m². LCA results for products with the lowest total pile weight of 542 g/m² can be taken from the corresponding tables of the annexe. Results for specific products with any other total pile weight can be calculated by using equation 1 given in the annexe (see annexe chapter: 'General Information on the annexe').

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 (see annexe, chapter 'General Information on use stage'). Information on un-declared modules: Modules B3 - B7 are not relevant during the service life of the carpet and are therefore not declared. Modules C1, C3, C4/1 and C4/2 cause no additional impact (see "LCA: Calculation rules") and are therefore not declared. Module C2 represents the transport for scenarios 0, 1 and 2. Column D/3 represents module D/A5.

Version number of the characterisation factors used: *EN 15804+A2 (EF 3.1)*

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	X	X	X	X	MNR	MNR	MNR	MND	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 m² floorcovering

Parameter	Unit	A1-A3	A4	A5	B1	B2	C1	C2	C3	C3/1	C3/2	C4	C4/1	C4/2	D	D/1	D/2	D/3
GWP-total	kg CO ₂ eq	8.73E+00	3.4E-01	4.13E-01	0	5.09E-01	0	1.38E-02	0	3.89E+00	3.94E+00	9.87E-02	0	0	0	-9.05E-01	-4.34E-01	0
GWP-fossil	kg CO ₂ eq	8.92E+00	3.33E-01	2.94E-01	0	3.09E-01	0	1.35E-02	0	3.89E+00	3.94E+00	9.61E-02	0	0	0	-9.01E-01	-4.34E-01	0
GWP-biogenic	kg CO ₂ eq	-1.92E-01	8.24E-04	1.18E-01	0	3.6E-03	0	3.44E-05	0	1.58E-04	3.69E-04	0	0	0	0	-3.86E-03	6.05E-04	0
GWP-luluc	kg CO ₂ eq	3.44E-03	5.46E-03	2.99E-04	0	1.96E-01	0	2.31E-04	0	4.43E-04	1.02E-03	3.63E-04	0	0	0	-8.14E-05	-4.82E-04	0
ODP	kg CFC11 eq	4.18E-11	3.39E-14	1.28E-12	0	3.42E-08	0	1.39E-15	0	8.55E-13	1.17E-12	3.25E-13	0	0	0	-7.92E-12	-1.12E-12	0
AP	mol H ⁺ eq	2.33E-02	2.46E-03	8.31E-04	0	7.45E-04	0	8.49E-05	0	3.87E-03	4.11E-03	5.91E-04	0	0	0	-9.39E-04	-1.23E-03	0
EP-freshwater	kg P eq	1.93E-05	1.39E-06	3.69E-06	0	5.26E-06	0	5.88E-08	0	6.94E-07	8.99E-07	5.66E-05	0	0	0	-1.48E-06	-5.77E-07	0
EP-marine	kg N eq	5.99E-03	1.1E-03	2.89E-04	0	1.81E-04	0	4.16E-05	0	1.89E-03	2E-03	1.27E-04	0	0	0	-2.87E-04	-4.36E-04	0
EP-terrestrial	mol N eq	5.84E-02	1.21E-02	2.31E-03	0	2.66E-03	0	4.62E-04	0	2.1E-02	2.22E-02	1.4E-03	0	0	0	-3.09E-03	-4.77E-03	0
POCP	kg NMVOC eq	1.99E-02	2.2E-03	7.56E-04	4.18E-04	9.44E-04	0	7.98E-05	0	4.85E-03	5.06E-03	4.07E-04	0	0	0	-8.15E-04	-1.4E-03	0
ADPE	kg Sb eq	7.12E-07	2.8E-08	2.27E-08	0	2.15E-07	0	1.17E-09	0	1.21E-08	1.76E-08	6.56E-09	0	0	0	-7.75E-08	-2.28E-08	0
ADPF	MJ	2E+02	4.41E+00	6.28E+00	0	5.62E+00	0	1.8E-01	0	2.4E+00	3.14E+00	1.67E+00	0	0	0	-1.61E+01	-7.25E+01	0
WDP	m ³ world eq deprived	7.76E-01	4.87E-03	2.44E-02	0	9.97E-02	0	2.05E-04	0	5.26E-01	5.3E-01	1.28E-02	0	0	0	-9.71E-02	-5.81E-02	0

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; WDP = Water (user) deprivation potential

RESULTS OF THE LCA - INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1 m² floorcovering

Parameter	Unit	A1-A3	A4	A5	B1	B2	C1	C2	C3	C3/1	C3/2	C4	C4/1	C4/2	D	D/1	D/2	D/3
PERE	MJ	2.45E+01	3.6E-01	1.02E+00	0	4.03E+00	0	1.52E-02	0	5.31E-01	7.8E-01	2.52E-01	0	0	0	-5.31E+00	-6.59E-01	0
PERM	MJ	2.49E-01	0	-2.49E-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERT	MJ	2.48E+01	3.6E-01	7.73E-01	0	4.03E+00	0	1.52E-02	0	5.31E-01	7.8E-01	2.52E-01	0	0	0	-5.31E+00	-6.59E-01	0

PENRE	MJ	1.49E+02	4.41E+00	6.42E+00	0	5.62E+00	0	1.8E-01	0	5.35E+01	5.42E+01	1.67E+00	0	0	0	-1.61E+01	-7.25E+01	0
PENRM	MJ	5.12E+01	0	-1.37E-01	0	0	0	0	0	-5.11E+01	-5.11E+01	0	0	0	0	0	0	0
PENRT	MJ	2E+02	4.41E+00	6.28E+00	0	5.62E+00	0	1.8E-01	0	2.4E+00	3.14E+00	1.67E+00	0	0	0	-1.61E+01	-7.25E+01	0
SM	kg	1.8E-01	0	5.39E-03	0	0	0	0	0	0	0	0	0	0	0	0	9.5E-01	0
RSF	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FW	m ³	3.09E-02	4.04E-04	9.69E-04	0	3.31E-03	0	1.71E-05	0	1.25E-02	1.27E-02	3.81E-04	0	0	0	-4.07E-03	-6.26E-03	0

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 – WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2:

1 m² floorcovering

Parameter	Unit	A1-A3	A4	A5	B1	B2	C1	C2	C3	C3/1	C3/2	C4	C4/1	C4/2	D	D/1	D/2	D/3
HWD	kg	7.67E-08	1.43E-10	2.34E-09	0	4.19E-05	0	5.82E-12	0	1.08E-09	1.51E-09	4.12E-10	0	0	0	-1.07E-08	-1.43E-09	0
NHWD	kg	2.87E-01	6.76E-04	1.82E-01	0	7.35E-03	0	2.8E-05	0	8.98E-01	8.98E-01	3.34E+00	0	0	0	-8.31E-03	-1.47E-03	0
RWD	kg	3.1E-03	5.68E-06	9.52E-05	0	3.54E-04	0	2.32E-07	0	8.32E-05	1.3E-04	2.35E-05	0	0	0	-1.17E-03	-1.24E-04	0
CRU	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0	0	0	9.5E-01	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EEE	MJ	0	0	0	0	0	0	0	0	4.42E+00	0	0	0	0	0	0	0	0
EET	MJ	0	0	0	0	0	0	0	0	8.29E+00	5.25E+01	0	0	0	0	0	0	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; EET = Exported thermal energy

RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional:

1 m² floorcovering

Parameter	Unit	A1-A3	A4	A5	B1	B2	C1	C2	C3	C3/1	C3/2	C4	C4/1	C4/2	D	D/1	D/2	D/3
PM	Disease incidence	2.6E-07	2.11E-08	8.98E-09	0	6.78E-08	0	5.44E-10	0	1.83E-08	1.98E-08	6.11E-09	0	0	0	-7.7E-09	-3E-08	0
IR	kBq U235 eq	4.88E-01	7.93E-04	1.5E-02	0	6.31E-02	0	3.24E-05	0	1.26E-02	2.04E-02	3.22E-03	0	0	0	-1.93E-01	-1.03E-02	0
ETP-fw	CTUe	7.92E+01	3.25E+00	2.83E+00	3.6E-03	2.01E+00	0	1.32E-01	0	1.12E+00	1.54E+00	3.61E+00	0	0	0	-2.25E+00	-2.77E+01	0
HTP-c	CTUh	2.45E-09	6.51E-11	7.95E-11	0	6.23E-10	0	2.66E-12	0	5.02E-11	6.16E-11	5.35E-11	0	0	0	-1.83E-10	-1.15E-10	0
HTP-nc	CTUh	7.32E-08	2.86E-09	2.52E-09	2.6E-11	5.85E-09	0	1.18E-10	0	2.23E-09	2.6E-09	1.12E-09	0	0	0	-4.32E-09	-3.84E-09	0
SQP	SQP	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

PM = Potential incidence of disease due to PM emissions; IR = Potential Human exposure efficiency relative to U235; ETP-fw = Potential comparative Toxic Unit for ecosystems; HTP-c = Potential comparative Toxic Unit for humans (cancerogenic); HTP-nc = Potential comparative Toxic Unit for humans (not cancerogenic); SQP = Potential soil quality index

No substantiated values can be given for the SQP indicator with the existing database.

The result figures given in module B2 refer to a period of 1 year because a reference service life is not declared. They have to be multiplied by the assumed service life (in years) of the floor covering in the building under consideration.

Disclaimer 1 – for the indicator 'Potential Human exposure efficiency relative to U235'. This impact category deals mainly with the eventual impact of low-dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators 'abiotic depletion potential for non-fossil resources', 'abiotic depletion potential for fossil resources', 'water (user) deprivation potential, deprivation-weighted water consumption', 'potential comparative toxic unit for ecosystems', 'potential comparative toxic unit for humans – cancerogenic', 'Potential comparative toxic unit for humans - not cancerogenic', 'potential soil quality index'. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

References

EN 1307

DIN EN 1307: 2014+A1:2016+A2:2018-05: Textile floor

coverings - Classification

EN 13501-1

DIN EN 13501-1:2019-05: Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests

EN 14041

DIN EN 14041: 2018-05 and DIN EN 14041: 2008-05: Resilient, textile and laminate floor coverings - Essential characteristics

EN 15804

DIN EN 15804:2012+A2:2019 + AC:2021, Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

EN 16810

DIN EN 16810: 2017-08: Resilient, textile and laminate floor coverings — Environmental product declarations — Product category rules

ISO 10874

DIN EN ISO 10874: 2012+A1:2021-04: Resilient, textile and laminate floor coverings - Classification

ISO 14025

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

ISO 14040

DIN EN ISO 14040:2006+A1:2020 Environmental management - Life cycle assessment - Principles and framework

ISO 14044

DIN EN ISO 14044:2006+A1:2018+A2:2020 Environmental management - Life cycle assessment - Requirements and guidelines

ISO 15686

ISO 15686: Buildings and constructed assets - Service life planning

ISO 15686-1: 2011-05: Part 1: General principles and framework

ISO 15686-2: 2012-05: Part 2: Service life prediction procedures

ISO 15686-7: 2017-04: Part 7: Performance evaluation for feedback of service life data from practice

ISO 15686-8: 2008-06: Part 8: Reference service life and service- life estimation

Regulation (EU) No. 305/2011

Regulation No. 305/2011 Construction Products Regulation (CPR) of the European Council and of the European Parliament, April 2011

General Instructions for the IBU-EPD Program

General Instructions for the EPD-Program of the Institut Bauen und Umwelt e.V., The Preparation of Environmental Product

Declarations - EPDs, version 2.0, Institut Bauen und Umwelt e.V., Berlin, January 2021, www.ibu-epd.de

ACCS

Australian Carpet Classification Scheme by Carpet Institute of Australia Limited (CIAL)

BBSR

Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR) im Bundesamt für Bauwesen und Raumordnung (BBR), Bonn

BNB, Nutzungsdauer von Bauteilen

Bewertungssystem Nachhaltiges Bauen (BNB), Nutzungsdauer von Bauteilen, Bundesministerium des Inneren, für Bau und Heimat, 24.02.2017

ECHA candidate list

Candidate List of substances of very high concern (SVHCs) for authorisation, last update 21.01.2025, European Chemicals Agency (ECHA), Helsinki, Finland

ecoinvent 3.9

ecoinvent, Zurich, Switzerland, database version 3.9, published September 2022

Sphera MLC database 2024-1

LCA for experts Software-System and database for Life Cycle Engineering, thinkstep AG, Sphera Solutions Inc, Stuttgart, 2024-1

PCR Part A

Product Category Rules for Construction Products from the range of Environmental Product Declarations. Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Background Report, V1.4, Berlin: Institut Bauen und Umwelt e.V. (IBU), April 2024

PCR Part B

Product Category Rules for Construction Products from the range of Environmental Product Declarations of Institut Bauen und Umwelt (IBU), Part B: Requirements on the EPD for floor coverings, V1.3, Berlin: Institut Bauen und Umwelt e.V. (IBU), September 2022

PRODIS

Product Information System (PRODIS) of the European Carpet Industry, Gemeinschaft umweltfreundlicher Teppichboden e.V (GUT) and European Carpet and Rug Association (ECRA), <http://www.pro-dis.info>

REACH

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). Last update: 21.01.2025

VDZ e.V.

Association of German Cement Works, Ed. Environmental Data of the German Cement Industry 2020

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Annex

For products with a max. total pile weight of 542 g/m²

to the

ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804

Owner of the Declaration	GH Commercial
Declaration number	EPD-GHC-20240007-CBA1-EN
Issue date	28.02.2025
Valid to	27.02.2030

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



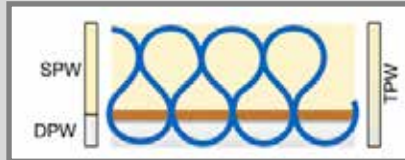
General Information on the annex

The EPD document is valid for all products with a total pile weight lower or equal to the declared maximum pile weight of 746 g/m².

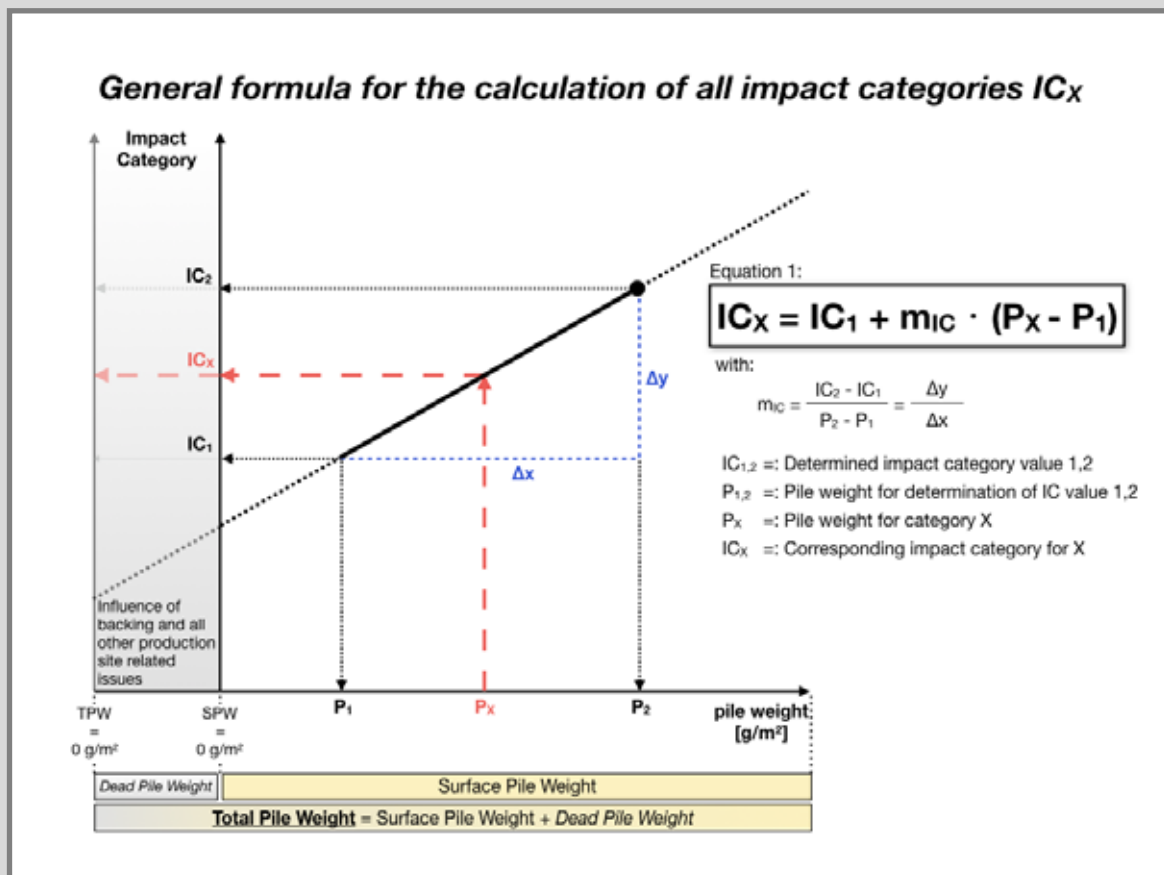
LCA results show a linear correlation with the total pile weight for all impact categories (IC) and all modules (A-D). It is possible to calculate specific LCA results (IC_x) for every carpet (x) within the declared group of products in relation to its total pile weight (P_x).

The total pile weight (TPW) is the sum of surface pile weight (SPW) and dead pile weight (DPW):

$$TPW = SPW + DPW$$



The surface pile weight is the technical relevant value according to EN 1307 and has to be mentioned in technical specification. As shown in the figure below alternatively to the total pile weight the surface pile weight can be used to calculate LCA results (IC_x).



Graph 1: General formula for the calculation of all impact categories IC_x.

1. Information on products with a max total pile weight of 542 g/m²

Complementary technical data

Base materials / Ancillary materials

Name	Value for category	Unit
Polyamide 6	17,2	%
Polyester	6,7	%
Limestone	54,0	%
SBR-Latex	3,9	%
SBS-Copolymer	1,3	%
Bitumen	16,8	%
Additives	0,1	%
	0,0	%
	0,0	%
	0,0	%

LCA: Declared Unit

Name	Value for category	Unit
Declared unit	1,0	m ²
Grammage	3,15	kg/m ²

LCA: Scenarios and additional technical information

All indicated values refer to the declared functional unit

Transport to the construction site (A4)

Name	Value for category	Unit
Litres of fuel (truck, EURO 0-6 mix)	0,0087	l/100km
Transport distance	700	km
Capacity utilisation (including empty runs)	55	%

Installation in the building (A5)

Name	Value for category	Unit
Material lost	0,09	kg

Maintenance (B2)

Indication per m² and year

Name	Value for category	Unit
Maintenance cycle (wet cleaning)	1,5	1/year
Maintenance cycle (vacuum cleaning)	208	1/year
Water consumption (wet cleaning)	0,004	m ³
Cleaning agent (wet cleaning)	0,09	kg
Electricity consumption	0,314	kWh

End of Life (C1-C4)

Name	Value for category	Unit
Collected as mixed construction waste (scenario 0 and 1)	3,152	kg/m ²
Collected separately (scenario 2)	3,152	kg/m ²
Landfilling (scenario 0)	3,152	kg/m ²
Energy recovery (scenario 1)	3,152	kg/m ²
Energy recovery (scenario 2)	1,447	kg/m ²
Recycling (scenario 2)	1,705	kg/m ²

LCA: Results for products with a max. total pile weight of 542 g/m²

The declared result figures in module B2 have to be multiplied by the assumed service time (in years) of the floor covering in the building considered.

Information on non-relevant modules:

Modules B3 - B7 are not relevant during the service life of the carpet.
Module C2 represents the transport for scenarios 0, 1 and 2.

Description of the system boundary

(X = Included in LCA; MNR = Module not relevant; 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 A1 X	transport from the gate to the site A4 X assembly A5 X	use B1 X maintenance B2 X repair B3 MNR R replacement B4 MNR R refurbishment B5 MNR R operational energy use B6 MNR D operational water use B7 MNR D	de-creation C1 X transport C2 X waste processing C3 X disposal C4 X	reuse, recovery and recycling potential D X

Results of the LCA - Environmental impact: 1 m² floor covering

Parameter	Unit	A1-A3	A4	A5	B1	B2	C1	C2	C3	C3/1	C3/2	C4	C4/1	C4/2	D	D/1	D/2	D/3
GWP-total	[kg CO ₂ -eq]	7,03E+00	3,20E-01	3,53E-01	0,00E+00	5,09E-01	0,00E+00	1,29E-02	0,00E+00	3,43E+00	3,47E+00	9,27E-02	0,00E+00	0,00E+00	0,00E+00	-7,17E-01	-3,32E-01	0,00E+00
GWP-fossil	[kg CO ₂ -eq]	7,22E+00	3,14E-01	2,42E-01	0,00E+00	3,09E-01	0,00E+00	1,27E-02	0,00E+00	3,43E+00	3,47E+00	9,03E-02	0,00E+00	0,00E+00	0,00E+00	-7,14E-01	-3,32E-01	0,00E+00
GWP-biogenic	[kg CO ₂ -eq]	-1,98E-01	7,76E-04	1,11E-01	0,00E+00	3,60E-03	0,00E+00	3,23E-05	0,00E+00	1,09E-04	3,07E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-3,04E-03	5,48E-04	0,00E+00
GWP-lucluc	[kg CO ₂ -eq]	3,02E-03	5,15E-03	2,75E-04	0,00E+00	1,96E-01	0,00E+00	2,17E-04	0,00E+00	4,41E-04	9,86E-04	3,41E-04	0,00E+00	0,00E+00	0,00E+00	-6,42E-05	-3,86E-04	0,00E+00
ODP	[kg CFC11-eq]	3,47E-11	3,00E-14	1,06E-12	0,00E+00	3,42E-08	0,00E+00	1,26E-15	0,00E+00	7,97E-13	1,10E-12	3,06E-13	0,00E+00	0,00E+00	0,00E+00	-6,22E-12	-8,76E-13	0,00E+00
AP	[kg mol H ⁺ -eq]	1,92E-02	2,32E-03	6,98E-04	0,00E+00	7,45E-04	0,00E+00	7,97E-05	0,00E+00	3,04E-03	3,27E-03	5,55E-04	0,00E+00	0,00E+00	0,00E+00	-7,40E-04	-9,44E-04	0,00E+00
EP-fw	[kg P-eq]	1,62E-05	1,31E-06	3,40E-06	0,00E+00	5,26E-06	0,00E+00	5,52E-08	0,00E+00	6,77E-07	8,69E-07	5,32E-05	0,00E+00	0,00E+00	0,00E+00	-1,16E-06	-4,48E-07	0,00E+00
EP-mar.	[kg N-eq]	4,99E-03	1,03E-03	2,53E-04	0,00E+00	1,81E-04	0,00E+00	3,91E-05	0,00E+00	1,46E-03	1,57E-03	1,19E-04	0,00E+00	0,00E+00	0,00E+00	-2,27E-04	-3,35E-04	0,00E+00
EP-ter.	[Mol N-eq]	4,93E-02	1,14E-02	2,00E-03	0,00E+00	2,66E-03	0,00E+00	4,34E-04	0,00E+00	1,63E-02	6,16E-03	1,09E-03	0,00E+00	0,00E+00	0,00E+00	-2,44E-03	-3,67E-03	0,00E+00
POCP	[kg NMVOC-eq]	1,65E-02	2,08E-03	6,43E-04	4,18E-04	9,44E-04	0,00E+00	7,49E-05	0,00E+00	3,77E-03	3,97E-03	3,82E-04	0,00E+00	0,00E+00	0,00E+00	-6,44E-04	-1,08E-03	0,00E+00
ADPE	[kg Sb-eq]	5,90E-07	2,64E-08	1,90E-08	0,00E+00	2,15E-07	0,00E+00	1,10E-09	0,00E+00	1,13E-08	1,65E-08	6,16E-09	0,00E+00	0,00E+00	0,00E+00	-6,09E-08	-1,77E-08	0,00E+00
ADPF	[MJ]	1,65E+02	4,15E+00	5,22E+00	0,00E+00	5,62E+00	0,00E+00	1,69E-01	0,00E+00	2,17E+00	2,87E+00	1,57E+00	0,00E+00	0,00E+00	0,00E+00	-1,27E+01	-5,51E+01	0,00E+00
WDP	[m ³ world eq deprived]	7,06E-01	4,58E-03	2,22E-02	0,00E+00	9,97E-02	0,00E+00	1,93E-04	0,00E+00	4,78E-01	4,82E-01	1,20E-02	0,00E+00	0,00E+00	0,00E+00	-7,62E-02	-4,42E-02	0,00E+00

GWP = Global warming potential; **ODP** = Depletion potential of the stratospheric ozone layer; **AP** = Acidification potential of land and water; **EP** = Eutrophication potential (fw = freshwater, mar = marine, ter. = terrestrial); **POCP** = Formation potential of tropospheric ozone photochemical oxidants; **ADPE** = Abiotic depletion potential for non-fossil resources; **ADPF** = Abiotic depletion potential for fossil resources; **WDP** = Water depletion potential

Results of the LCA - Resource use: 1 m² floor covering

Parameter	Unit	A1-A3	A4	A5	B1	B2	C1	C2	C3	C3/1	C3/2	C4	C4/1	C4/2	D	D/1	D/2	D/3
PERE	[MJ]	2,06E+01	3,39E-01	9,01E-01	0,00E+00	4,03E+00	0,00E+00	1,43E-02	0,00E+00	4,98E-01	7,32E-01	2,37E-01	0,00E+00	0,00E+00	0,00E+00	-4,17E+00	-5,12E-01	0,00E+00
PERM	[MJ]	2,49E-01	0,00E+00	-2,49E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	2,08E+01	3,39E-01	6,52E-01	0,00E+00	4,03E+00	0,00E+00	1,43E-02	0,00E+00	4,98E-01	7,32E-01	2,37E-01	0,00E+00	0,00E+00	0,00E+00	-4,17E+00	-5,12E-01	0,00E+00
PENRE	[MJ]	1,20E+02	4,15E+00	5,35E+00	0,00E+00	5,62E+00	0,00E+00	1,69E-01	0,00E+00	4,67E+01	4,74E+01	1,57E+00	0,00E+00	0,00E+00	0,00E+00	-1,27E+01	-5,51E+01	0,00E+00
PENRM	[MJ]	4,47E+01	0,00E+00	-1,37E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-4,45E+01	-4,45E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,68E+02	4,15E+00	5,22E+00	0,00E+00	5,62E+00	0,00E+00	1,69E-01	0,00E+00	2,17E+00	2,87E+00	1,57E+00	0,00E+00	0,00E+00	0,00E+00	-1,27E+01	-5,51E+01	0,00E+00
SM	[kg]	1,80E-01	0,00E+00	5,39E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,50E-01	0,00E+00
RSF	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m ³]	2,59E-02	3,80E-04	8,16E-04	0,00E+00	3,31E-03	0,00E+00	1,60E-05	0,00E+00	3,54E-01	1,15E-02	3,58E-04	0,00E+00	0,00E+00	0,00E+00	-3,20E-03	-4,76E-03	0,00E+00

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: 1 m² floor covering

Parameter	Unit	A1-A3	A4	A5	B1	B2	C1	C2	C3	C3/1	C3/2	C4	C4/1	C4/2	D	D/1	D/2	D/3
HWD	[kg]	6,81E-08	1,34E-10	2,08E-09	0,00E+00	4,19E-05	0,00E+00	5,46E-12	0,00E+00	1,01E-09	1,42E-09	3,87E-10	0,00E+00	0,00E+00	0,00E+00	-8,43E-09	-1,11E-09	0,00E+00
NHWD	[kg]	2,54E-01	6,37E-04	1,71E-01	0,00E+00	7,35E-03	0,00E+00	2,63E-05	0,00E+00	8,96E-01	8,96E-01	3,14E+00	0,00E+00	0,00E+00	0,00E+00	-6,55E-03	-1,13E-03	0,00E+00
RWD	[kg]	2,50E-03	5,35E-06	7,70E-05	0,00E+00	3,54E-04	0,00E+00	2,18E-07	0,00E+00	7,79E-05	1,22E-04	2,21E-05	0,00E+00	0,00E+00	0,00E+00	-9,20E-04	-9,50E-05	0,00E+00
CRU	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,50E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,51E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,68E+00	4,60E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

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

Results of the LCA - Additional Impact categories: 1 m² floor covering

Parameter	Unit	A1-A3	A4	A5	B1	B2	C1	C2	C3	C3/1	C3/2	C4	C4/1	C4/2	D	D/1	D/2	D/3
PM	[D]	2,15E-07	1,99E-08	7,56E-09	0,00E+00	6,78E-08	0,00E+00	5,11E-10	0,00E+00	1,78E-08	1,78E-08	5,74E-09	0,00E+00	0,00E+00	0,00E+00	-6,07E-09	-2,60E-08	0,00E+00
IR	[kBq U235 eq.]	3,94E-01	7,46E-04	1,21E-02	0,00E+00	6,31E-02	0,00E+00	3,05E-05	0,00E+00	1,92E-02	1,92E-02	3,03E-03	0,00E+00	0,00E+00	0,00E+00	-1,52E-01	-7,95E-03	0,00E+00
ETP-fw	[CTUe]	6,74E+01	3,06E+00	2,45E+00	3,60E-03	2,01E+00	0,00E+00	1,24E-01	0,00E+00	1,46E+00	1,46E+00	1,83E+00	0,00E+00	0,00E+00	0,00E+00	-1,76E+00	3,85E+01	0,00E+00
HTP-c	[CTUh]	2,01E-09	6,12E-11	6,59E-11	0,00E+00	6,23E-10	0,00E+00	2,50E-12	0,00E+00	5,69E-11	5,69E-11	5,03E-11	0,00E+00	0,00E+00	0,00E+00	-1,45E-10	-8,79E-11	0,00E+00
HTP-nc	[CTUh]	6,06E-08	2,70E-09	2,13E-09	2,60E-11	5,85E-09	0,00E+00	1,11E-10	0,00E+00	2,48E-09	2,48E-09	1,05E-09	0,00E+00	0,00E+00	0,00E+00	-3,42E-09	-2,94E-09	0,00E+00
SQP	[Pt]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Caption	PM = Incidence of diseases due to PM emissions; IR = Human exposure efficiency relative to U235; ETP-fw = Comparative toxic unit for ecosystems; HTP-c = Comparative toxic unit for humans (carcinogenic); HTP-nc = Comparative toxic unit for humans (non-carcinogenic); SQP = Soil quality index																	



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