ENVIRONMENTAL PRODUCT DECLARATION

as per /ISO 14025/ and /EN 15804/

Owner of the Declaration Egetaepper a

Programme holder Institut Bauen und Umwelt e.V. (IBU

Publisher Institut Bauen und Umwelt e.V. (IBU)

Declaration number EPD-EGE-20190135-CCC1-EN

Issue date 18/09/2019 Valid to 17/09/2024

Woven broadloom carpet

max. total pile material 700 gm², Polyamide 6.6, continous dyed, woven textile backing

ege®



www.ibu-epd.com / https://epd-online.com



General Information

ege®	Woven broadloom carpet					
	total pile material 700 gm², polyamide					
	6.6, continous dyed,					
	woven textile backing					
Programme holder	Owner of the declaration					
IBU - Institut Bauen und Umwelt e.V.	egetaepper a/s					
Panoramastr. 1	Industrivej Nord 25					
10178 Berlin	7400 Herning					
Germany	Denmark					
Declaration number	Declared product / declared unit					
EPD-EGE-20190135-CCC1-EN	1 m² woven broadloom carpet, with a pile material made of PA6.6					
This declaration is based on the product	Scope:					
category rules:	The manufacturer declaration applies to a group of					
Floor coverings, 02/2018	similar products with a maximum total pile weight of					
(PCR checked and approved by the SVR)	700 g/m2.					
Issue date	The carpet is woven at Bentzon Carpets, Roejle, Denmark and it is coloured and backcoated in the					
18/09/2019	ege® manufacturing site Gram, Denmark.					
10/09/2019	It is only valid in conjunction with a valid GUT-					
Valid to	/PRODIS/ license of the product.					
17/09/2024						
11/00/2024	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.					
4	Verification					
Nam Peter	The standard /EN 15804/ serves as the core PCR					
Man was	Independent verification of the declaration and data according to /ISO 14025:2010/					
Dipl. Ing. Hans Peters (President of Institut Bauen und Umwelt e.V.)	internally x externally					
Steamer Hails	Angela Schindle					
Dr. Alexander Röder (Managing Director IBU)	Angela Schindler (Independent verifier appointed by SVR)					

Product

Product description / Product definition

Woven broadloom carpet having a surface pile material of polyamide 6.6 and a woven textile backing out of polypropylene. The carpet is colored by continuous dyeing method. The calculations refer to a total pile weight of 700 g/m 2 .

The declaration applies to a group of products with a maximum total pile weight of 700 g/m². The LCA results are calculated for products with the maximum total pile weight.

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 /CPR/ applies. The products need a Declaration of Performance taking into consideration /EN 14041/ and the CE-marking. The DoP of the products can be found on the manufacturer's technical information section.

For the application and use of the products the respective national provisions apply.

Application

According to the use class as defined in /EN 1307/ the products can be used in all professional areas which require class 33 or less.





Technical Data

The performance data listed in the DoP apply.

Name	Value	Unit
Product Form	Broadloom	-
Type of manufacture	Woven loop pile carpet	-
Yarn type	Polyamide 6.6	-
Coloration	Continous dyed	
Secondary backing	Woven textile made of PP	-
Total pile weight	max.700	g/m²
Total carpet weight	max.2494	g/m²

Additional product properties in accordance with /EN 1307/ and performance data of the product in accordance with the Declaration of Performance with respect to its Essential Characteristics according to /EN 14041/ 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.egecarpets.com).

Base materials / Ancillary materials

Name	Value	Unit
Polyamide 6.6	28.1	%
Polyester	7.8	%
Polypropylene	8.7	%
Limestone	16.8	%
Aluminium hydroxide	20.6	%
Polymer dispersion (solid content)	18.0	%

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 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	0.4	-
Mass reference	2.49	ka/m²

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.

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.

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

Floor preparation 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 carpet 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.

C3-3: Collection of the carpet waste, waste processing (granulating).

C4 Disposal

C4-1: Impact from landfill disposal,

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

C4-3: The pre-processed carpet 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 carpet waste at the end-of-life,

D-2: Benefits for generated energy due to incineration of carpet 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 carpet 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 8.7/, service pack 37 and from the /ecoinvent 3.5/ (2018) 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 the product.

Transport to the construction site (A4)

Transport to the construction site (A4)							
Name	Value	Unit					
Litres of fuel (truck, EURO 0-6 mix)	0.006	l/100km					
Transport distance	700	km					
Capacity utilisation (including empty	85	%					

Installation in the building (A5)

Name	Value	Unit
Material loss	0.224	ka

Packaging waste and installation waste are considered to be incinerated in a municipal waste incineration plant.

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 EN 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 on the basis of this useful life in order to obtain the overall environmental impacts.

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Name	Value	Unit
Maintenance cycle (wet cleaning)	1.5	1/year
Maintenance cycle (vacuum cleaning)	208	1/year
Water consumption (wet cleaning)	0.004	m³
Cleaning agent (wet cleaning)	0.09	kg
Electricity consumption	0.314	kWh

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

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)

The following applies:

x + y + z = 100

Name	Value	Unit
Collected as mixed construction	2.49	ka
waste (scenario 1 and 2)	2.49	kg
Collected separately (scenario 3)	2.49	kg
Landfilling (scenario 1)	2.49	kg
Energy recovery (scenario 2)	2.49	kg
Energy recovery (scenario 3)	1.56	kg
Recycling (scenario 3)	0.93	kg

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

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

Recycling in the cement industry (scenario 3) /VDZ e.V./

The organic material of the carpet is used as secondary fuel in a cement kiln. It mainly substitutes for lignite (62.2%), hard coal (27.3%) and petrol coke

The inorganic material is substantially integrated into the cement clinker and substitutes for original material input.



LCA: Results

The results refer to all declared products with a maximum total pile weight of 700 g/m².

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 carpet and are therefore not declared. Modules C1, C3/1 and C4/2 cause no additional impact (see chapter "LCA: Calculation rules" in this document) and are therefore not declared. Module C2 represents the transport for scenarios 1, 2 and 3. Column D represents module D/A5. The calculations are based on the /CML/ characterization factors (version January 2016).

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A1	A2	A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C	3 C4		D
X	Χ	X	X	Х	Х	Χ	MNI	R MN	R MNR	MND	MND	MND	Χ	X	X		X
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GWP ODP		CO ₂ -Eq.] FC11-Eq.	1.27E+			-1 0.00 10 0.00)E+0	3.02E-1	5.87E-3 9.74E-19	4.23E+0				_	0.00E+0	-1.89E+0	-4.64E-1 -2.64E-15
AP		SO ₂ -Eq.]	1.85E-2				E+0	1.23E-3		2.23E-3					0.00E+0	-3.17E-3	-1.91E-3
EP		O ₄) ³ -Eq.])E+0	3.45E-4		5.64E-4					0.00E+0	-3.43E-4	
POCP ADPE		hene-Eq.] Sb-Eq.]	2.34E-3 4.69E-6				9E-5)E+0	1.56E-4 1.08E-6							0.00E+0 0.00E+0	-2.51E-4 -3.38E-7	-2.02E-4 -3.10E-7
ADPF		[MJ]	2.31E+					6.87E+0		1.56E+0						-2.65E+1	
ADPF [MJ] 2.31E+2 1.42E+0 6.95E+0 0.00E+0 6.87E+0 7.99E-2 1.56E+0 1.55E-1 2.61 Caption GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = , Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants fossil resources; ADPF = Abiotic depletion potential for fossil re						: AP = Ac	idificatio	n pote	ential of la	nd and wa	ater: FP =						
		портност	ion potent	ial; POCF		tion pote	ential	of tropos	pheric ozoi	ne photocl	hemical o	xidants;	ADPE =	Abiot	ic depletio	on potentia	
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PERI PERI PERI PENR PENR	eter E M T RE RM	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [kg]	A1-A3 4.51E+1 0.00E+0 4.51E+1 1.96E+2 5.04E+1 2.46E+2	A - RES 8.26E-2 0.00E+0 8.26E-2 1.42E+0 0.00E+0	A5 1.35E+0 0.00E+0 1.35E+0 7.40E+0 0.00E+0	E US B1 0.00E 0.00E 0.00E 0.00E 0.00E 0.00E 0.00E 0.00E	E: 1	m ² flo B2 1.16E+0 0.00E+0 1.16E+0 0.00E+0 0.00E+0	C2 4.65E-3 0.00E+0 4.65E-3 8.02E-2 0.00E+0 8.02E-2 0.00E+0	c3/2 2.35E-1 0.00E+0 2.35E-1 5.21E+1 -5.04E+1 1.74E+0 0.00E+0	C3/3 1.05E-1 0.00E+0 1.05E-1 5.06E+1 -5.04E+	C4/1 1.86E- 0.00E+ 1.86E- 2.70E+ 0.00E+ 0.00E+	ADPE = surces 1	5E-1 E+0 5E-1 DE+0 E+0 DE+0 E+0	D/1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0	D/2 -6.71E+0 0.00E+0 -6.71E+0 -3.33E+1 0.00E+0	D/3 -5.90E-1 0.00E+0 -5.90E-1 -4.72E+1 0.00E+0
PERM PERM PERM PENR PENR PENR SM RSF	E M T RE RM RT	OF T Unit	A1-A3 4.51E+1 0.00E+0 4.51E+1 1.96E+2 5.04E+1 2.46E+2 0.00E+0 0.00E+0	A - RES 8.26E-2 0.00E+0 8.26E-2 1.42E+0 0.00E+0 1.42E+0 0.00E+0 0.00E+0 0.00E+0	A5 1.35E+0 0.00E+0 1.35E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0	E US B1 0.00E	E: 1 E+0 1 E+0 0	of tropos ADPF = A m ² flo B2 1.16E+0 0.00E+0 3.11E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0	cheric ozol Abiotic dep C2 4.65E-3 0.00E+0 4.65E-3 8.02E-2 0.00E+0 0.00E+0 0.00E+0	c3/2 2.35E-1 0.00E+0 2.35E-1 5.21E+1 -5.04E+1 1.74E+0 0.00E+0 0.00E+0	C3/3 1.05E-1 0.00E+0 1.05E-1 5.06E+1 -5.04E+1 0.00E+0 0.00E+0 0.00E+0	C4/1 1.86E- 0.00E+ 1.86E- 2.70E+ 0.00E+ 0.00E+ 0.00E+ 0.00E+ 0.00E+	ADPE = surces 1	5E-1 E+0 5E-1 9E+0 E+0 9E+0 E+0 E+0 E+0 E+0	D/1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0	D/2 -6.71E+0 0.00E+0 -6.71E+0 -3.33E+1 0.00E+0 -3.33E+1 0.00E+0 0.00E+0	D/3 -5.90E-1 0.00E+0 -5.90E-1 4.72E+1 0.00E+0 4.72E+1 0.00E+0 5.04E+1
PERE PERE PENR PENR PENR SM RSF	eter E M T RE RM RT	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [kg] [MJ] [MJ] [MJ]	A1-A3 4.51E+1 0.00E+0 4.51E+1 1.96E+2 5.04E+1 2.46E+2 0.00E+0 0.00E+0 0.00E+0 5.50E-2	A - RES 8.26E-2 0.00E+0 8.26E-2 1.42E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.40E-4	7.40E+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	B1	ential rees; /rees; /res; /res	m² flo B2 .16E+0 .0.00E+0 .16E+0 .0.00E+0 .3.11E+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	c200Abiotic dep c2 4.65E-3 0.00E+0 4.65E-3 8.02E-2 0.00E+0 8.02E-2 0.00E+0 0.00E+0 0.00E+0 0.00E+0	ephotocletion potes cring C3/2 2.35E-1 0.00E+0 2.35E-1 5.21E+1 -5.04E+1 1.74E+0 0.00E+0 0.00E+0 0.00E+0 1.19E-2	C3/3 1.05E-1 0.00E+C 1.05E-1 5.06E+1 -5.04E+' 0.00E+C 0.00E+C 1.24E-4	C4/1 1.86E- 0.00E+ 1.86E- 2.70E+ 0.00E+ 0.00E+ 0.00E+ 4.58E-	ADPE = surces 1	5E-1 E+0 5E-1 DE+0 E+0 DE+0 E+0 E+0 E+0 F-4	D/1 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	D/2 -6.71E+0 0.00E+0 -6.71E+0 -3.33E+1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -7.92E-3	D/3 -5.90E-1 0.00E+0 -5.90E-1 4.72E+1 0.00E+0 4.72E+1 9.99E-1 0.00E+0 5.04E+1 4.33E-3
Parame PERI PERI PENR PENR PENR SM RSF NRSI FW	E M TT RE RIM RTT RTT RE RIM RTT	Unit [MJ] [PERE = ewable pon-renewable pecondares	A1-A3 4.51E+1 0.00E+0 4.51E+1 1.96E+2 5.04E+1 2.46E+2 0.00E+0	8.26E-2 0.00E+0 8.26E-2 1.42E+0 0.00E+0 1.42E+0 0.00E+0 0.00E+0 1.40E-4 energy res rimary en nergy res al; RSF =	1.35E+0 0.00E+0 1.35E+0 0.00E+0 7.40E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2.23E-3 primary ources usergy excl sources usergy excl	B1 0.00E	E: 1 E: 0	m² flo B2 1.16E+0 0.00E+0 1.16E+0 0.00E+0 0.00	c200Abiotic dep c2 4.65E-3 0.00E+0 4.65E-3 8.02E-2 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 ewable pr PERT = c primary e primar	2.35E-1 0.00E+0 2.35E-1 5.21E+1 -5.04E+1 1.74E+0 0.00E+0 0.00E+0 0.00E+0 1.19E-2 imary energy reserved use energy reserved use F = Total use	C3/3 1.05E-1 0.00E+C 1.05E-1 5.06E+1 -5.04E+' -5.04E-C 0.00E+C 0.00E+C 0.00E+C 0.00E+C orgy resc of renew sources see of non-release of non-releas	C4/1 1.86E- 0.00E+ 1.86E- 2.70E+ 0.00E+ 0.00E+ 0.00E+ 4.58E- 0urces us	ADPE = surces 1) E+0 5E-1 E+0 E+0 E+0 E+0 E+0 E+0 ergy i terials	D/1 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 aterials; fresources; PENRM, nergy res	D/2 -6.71E+0 0.00E+0 -6.71E+0 -3.33E+1 0.00E+0 -3.33E+1 0.00E+0 0.00E+0 -7.92E-3 PERME Use of ources; \$	D/3 -5.90E-1 0.00E+0 -5.90E-1 4.72E+1 0.00E+0 4.72E+1 9.96E-1 0.00E+0 5.04E+1 4.33E-3 Jse of in con-
Parame PERI PERI PERI PENR PENR PENR PENR SM RSF NRSI FW Caption	E MM T RE RAM RT renor renor so sull sull sull sull sull sull sull s	Unit [MJ] [PERE = ewable pon-renewable pecondares	A1-A3 A.51E+1 0.00E+0 4.51E+1 1.96E+2 5.04E+1 2.46E+2 0.00E+0 0.00E+0 0.00E+0 0.00E+0 b.50E-2 Use of reprint of the properties of the prop	8.26E-2 0.00E+0 8.26E-2 1.42E+0 0.00E+0 1.42E+0 0.00E+0 0.00E+0 1.40E-4 energy res rimary en nergy res al; RSF =	1.35E+0 0.00E+0 1.35E+0 0.00E+0 7.40E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2.23E-3 primary ources usergy excl sources usergy excl	B1 0.00E	E: 1 E: 0	m² flo B2 1.16E+0 0.00E+0 1.16E+0 0.00E+0 0.00	c200Abiotic dep c2 4.65E-3 0.00E+0 4.65E-3 8.02E-2 0.00E+0 0	2.35E-1 0.00E+0 2.35E-1 5.21E+1 -5.04E+1 1.74E+0 0.00E+0 0.00E+0 0.00E+0 1.19E-2 imary energy reserved use energy reserved use F = Total use	C3/3 1.05E-1 0.00E+C 1.05E-1 5.06E+1 -5.04E+' -5.04E-C 0.00E+C 0.00E+C 0.00E+C 0.00E+C orgy resc of renew sources see of non-release of non-releas	C4/1 1.86E- 0.00E+ 1.86E- 2.70E+ 0.00E+ 0.00E+ 0.00E+ 4.58E- 0urces us	ADPE = surces 1) E+0 5E-1 E+0 E+0 E+0 E+0 E+0 E+0 ergy i terials	D/1 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 aterials; fresources; PENRM, nergy res	D/2 -6.71E+0 0.00E+0 -6.71E+0 -3.33E+1 0.00E+0 -3.33E+1 0.00E+0 0.00E+0 -7.92E-3 PERME Use of ources; \$	D/3 -5.90E-1 0.00E+0 -5.90E-1 4.72E+1 0.00E+0 4.72E+1 9.96E-1 0.00E+0 5.04E+1 4.33E-3 Jse of in con-
Parame PERI PERI PENR PENR PENR PENR SM RSF NRSI FW Caption	ILTS E M T T RE RT rene ren of s	Unit Unit [MJ]	A1-A3 A.51E+1 0.00E+0 4.51E+1 1.96E+2 5.04E+1 2.46E+2 0.00E+0 0.00E+0 0.00E+0 0.00E+0 b.50E-2 Use of reprint of the properties of the prop	8.26E-2 0.00E+0 8.26E-2 1.42E+0 0.00E+0 1.42E+0 0.00E+0 0.00E+0 1.40E-4 energy res rimary en nergy res al; RSF =	1.35E+0 0.00E+0 1.35E+0 0.00E+0 7.40E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2.23E-3 primary ources usergy excl sources usergy excl	B1 0.00E	E: 1 +0 1 +0 2 +0 1 +0 6 +0 6 +0 6 +0 6 +0 6 +0 7 E: 10	m² flo B2 1.16E+0 0.00E+0 1.16E+0 0.00E+0 0.00	c200Abiotic dep c2 4.65E-3 0.00E+0 4.65E-3 8.02E-2 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 ewable pr PERT = c primary e primar	2.35E-1 0.00E+0 2.35E-1 5.21E+1 -5.04E+1 1.74E+0 0.00E+0 0.00E+0 0.00E+0 1.19E-2 imary energy reserved use energy reserved use F = Total use	C3/3 1.05E-1 0.00E+C 1.05E-1 5.06E+1 -5.04E+' -5.04E-C 0.00E+C 0.00E+C 0.00E+C 0.00E+C orgy resc of renew sources see of non-release of non-releas	C4/1 1.86E- 0.00E+ 1.86E- 2.70E+ 0.00E+ 0.00E+ 0.00E+ 4.58E- 0urces us	ADPE = surces 1	DE-1 E+0 SE-1 E+0 E+0 E+0 E+0 E+0 E+0 aw mary eterials	D/1 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 aterials; fresources; PENRM, nergy res	D/2 -6.71E+0 0.00E+0 -6.71E+0 -3.33E+1 0.00E+0 -3.33E+1 0.00E+0 0.00E+0 -7.92E-3 PERME Use of ources; \$	D/3 -5.90E-1 0.00E+0 -5.90E-1 4.72E+1 0.00E+0 4.72E+1 9.96E-1 0.00E+0 5.04E+1 4.33E-3 Jse of in con-
Permerence Permerence Permerence Penmerence	TERE rene rene of s	Unit [MJ] [Value of the content	HE LC/ A1-A3 4.51E+1 0.00E+0 4.51E+1 1.96E+2 5.04E+1 2.46E+2 0.00E+0 0.00E+0 0.00E+0 Use of reprimary energy materials by materials HE LC/ ing A1-A3 2.01E-5	A - RES A4 8.26E-2 0.00E+0 8.26E-2 1.42E+0 0.00E+0 1.42E+0 0.00E+0 0.00E+0 1.40E-4 enewable nergy respirately energy ene	1.35E+0 0.00E+0 1.35E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.223E-3 primary ources usergy exclasources u Use of re TPUT I A5 5.96E-7	B1 0.00E	E: 1 +0 1	m² flo B2 1.16E+0 0.00E+0 1.16E+0 0.00E+0 0.	c2 4.65E-3 4.65E-3 4.65E-3 8.02E-2 0.00E+0 8.02E-2 0.00E+0 0.00E+0 7.87E-6 ewable pr PERT = primary e 4.48E-9	2.35E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.19E-2 imary ene Total use energy res = Total use Energy res Energy	C3/3 1.05E-1 0.00E+0 1.05E-1 5.06E+1 5.06E+1 -5.04E+2 2.61E-1 0.00E+0 0.00E+0 1.24E-4 ergy rescord renew sources see of non-roof non-roof C3/3 1.25E-10	C4/1 1.86E- 0.00E+ 1.86E- 2.70E+ 0.00E+ 0.00E+ 4.58E- urces us vable prir used as in- renewale enewable C4/1 1.13E-	ADPE = surces 1)	D/1 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 c.00E+0 aterials; Fresources; PENRN nergy resules; FW	D/2 -6.71E+0 0.00E+0 -6.71E+0 -3.33E+1 0.00E+0 -3.33E+1 0.00E+0 0.00E+0 0.00E+0 -7.92E-3 PERM = Use of D/2 -1.37E-8	D/3 -5.90E-1 0.00E+0 -5.90E-1 0.00E+0 4.72E+1 0.00E+0 4.72E+1 0.00E+0 5.04E+1 4.33E-3 Jse of E = Use of f non- SM = Use net fresh D/3 -3.36E-9
Permerence Permerence Permerence Permerence Penmerence	Tenor renor silonor	Unit [MJ]	HE LC/ A1-A3 4.51E+1 0.00E+0 4.51E+1 1.96E+2 5.04E+1 2.46E+2 0.00E+0 0.00E+0 5.50E-2 Use of received by material of the control of	A - RES A4 8.26E-2 0.00E+0 8.26E-2 1.42E+0 0.00E+0 0.00E+0 1.40E-4 enewable energy res rimary en nergy res al; RSF = A - OU A4 7.95E-8 1.16E-4	foss SOURC A5 1.35E+0 0.00E+0 1.35E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2.23E-3 primary ources usergy exclasources usergy excla	B1 0.00E	E: 1 +0 1 +0 0 -1 +0 0 -1 +0 0 -1 +0 0 -1 +0 0 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	of tropos ADPF = A m² flo B2 1.16E+0 1.00E+0 1.16E+0 1.16E+0 1.16E+0 1.11E+0 1.00E+0 1	c2 A:65E-3 0.00E+0 4.65E-3 8.02E-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 C2 Evitable primary 6 primary 6 primary 6 C2 4.48E-9 6.52E-6	C3/2 2.35E-1 0.00E+0 2.35E-1 5.21E+1 1.74E+0 0.00E+0 0.00E+0 1.19E-2 imary ene Total use energy res Total use energy res C3/2 8.15E-9 4.39E-1	C3/3 1.05E-1 0.00E+C 1.05E-1 5.06E+1 5.06E+1 5.06E+1 6.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C 1.24E-4 Ergy resc of renew see of non of non-rec C3/3 1.25E-10 1.90E-4	C4/1 1.86E- 0.00E+ 1.86E- 2.70E+ 0.00E+ 2.70E+ 0.00E+ 4.58E- surces us yable prir used as s-renewalenewable C4/1 1.13E- 2.49E+	ADPE = surces 1)	D/1 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 ending a string is free source signers in the string is free source to be supported by the string is free source to be supported by the string is free source to be supported by the string is free source in the string is free sourc	D/2 -6.71E+0 -0.00E+0 -3.33E+1 -0.00E+0 -3.33E+1 -0.00E+0 -0.00E+0 -0.00E+0 -0.00E+0 -0.00E+0 -7.92E-3 -7.92E-3 -1.37E-8 -1.43E-2	D/3 -5.90E-1 0.00E+0 -5.90E-1 4.72E+1 0.00E+0 4.72E+1 0.00E+0 5.04E+1 4.33E-3 Jse of f non- SM = Use net fresh D/3 -3.36E-9 -2.61E-1
Permerence Permerence Permerence Penmerence	TENOMO TO THE TENOMO THE TENOMO TO THE TENOMO TO THE TENOMO T	Unit [MJ]	HE LC/ A1-A3 4.51E+1 0.00E+0 4.51E+1 1.96E+2 5.04E+1 2.46E+2 0.00E+0 0.00E+0 0.00E+0 Use of reprimary energy materials by materials HE LC/ ing A1-A3 2.01E-5	A - RES A4 8.26E-2 0.00E+0 8.26E-2 1.42E+0 0.00E+0 0.00E+0 0.00E+0 1.40E-4 enewable nergy res rimary en nergy res rimary en nergy res 1.40E-4 1.40E-	foss 60URC A5 1.35E+0 0.00E+0 1.35E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.223E-3 primary ources usuergy excluded by the second of the	B1 0.00E	E: 1 +0 1 +0 1 +0 1 +0 1 +0 1 +0 1 +0 1 +	m² flo B2 1.16E+0 0.00E+0 1.16E+0 0.00E+0 0.	c2 4.65E-3 0.00E+0 4.65E-3 8.02E-2 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 ewable pr PERT = eprimary e primary e primary e 4.48E-9 6.52E-6 1.09E-7	2.35E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.19E-2 imary ene Total use energy res = Total use Energy res Energy	C3/3 1.05E-1 0.00E+0 1.05E-1 5.06E+1 5.06E+1 -5.04E+2 2.61E-1 0.00E+0 0.00E+0 1.24E-4 ergy rescord renew sources see of non-roof non-roof C3/3 1.25E-10	C4/1 1.86E- 0.00E+ 1.86E- 2.70E+ 0.00E+ 2.70E+ 0.00E+ 4.58E- surces us able prir used as increased as increa	ADPE = surces 1)	D/1 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 c.00E+0 aterials; Fresources; PENRN nergy resules; FW	D/2 -6.71E+0 -0.00E+0 -6.71E+0 -3.33E+1 0.00E+0 -3.33E+1 0.00E+0 0.00E+0 0.00E+0 -7.92E-3 DERM = Use of D/2 -1.37E-8 -1.43E-2 -2.68E-3	D/3 -5.90E-1 0.00E+0 -5.90E-1 4.72E+1 0.00E+0 4.72E+1 0.00E+0 5.04E+1 4.33E-3 Jse of = Use of f non- SM = Use net fresh D/3 -3.36E-9 -2.61E-1 -1.75E-4
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References

/IBU 2016/

IBU (2016): General Programme Instructions for the Preparation of EPDs at the Institut Bauen und Umwelt e.V., Version 1.1 Institut Bauen und Umwelt e.V., Berlin.

www.ibu-epd.de

/ISO 14025/

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

/EN 15804/

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

/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, V1.7, Berlin: *Institut Bauen und Umwelt* (IBU), *March* 2018

/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,

V1.2, Berlin: Institut Bauen und Umwelt e.V.m February 2018

/EN 1307/

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

/EN 14041/

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

/ISO 10874/

DIN EN ISO 10874: 2012-04: Resilient, textile and laminate 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

/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: 2006-03: 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

/VDZ e.V./

Association of German Cement Works, Ed. Environmental Data of the German Cement Industry 2016 (DE: *Verein deutscher Zementwerke* e.V.).Düsseldorf, 2017

/CML/

Characterization factors Version January 2016, Center of Environmental Science (CML) of Leiden University in the Netherlands.

/CPR/

Construction Products Regulation (EU) No. 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC.

/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: 25.03.2014 (Status: 27.06.2018)

/GaBi 8.7/

GaBi Software-System and Database for Life Cycle Engeneering, thinkstep AG, Leinfelden-Echterdingen, service pack 36, 2018

/ecoinvent 3.5/

ecoinvent, Zurich, Switzerland, database version 3.5, published 23.August 2018

/ECHA candidate list/

List of Substances of Very High Concern (SVHC) for authorisation (ECHA Candidate List) of 27.06.20108, published in accordance with Article 59(10) of the REACH Regulation. Helsinki: European Chemicals

available at: https://echa.europa.eu/de/candidate-list-table

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