# **ENVIRONMENTAL PRODUCT DECLARATION**

as per ISO 14025 and EN 15804

Owner of the Declaration Desso BV

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

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

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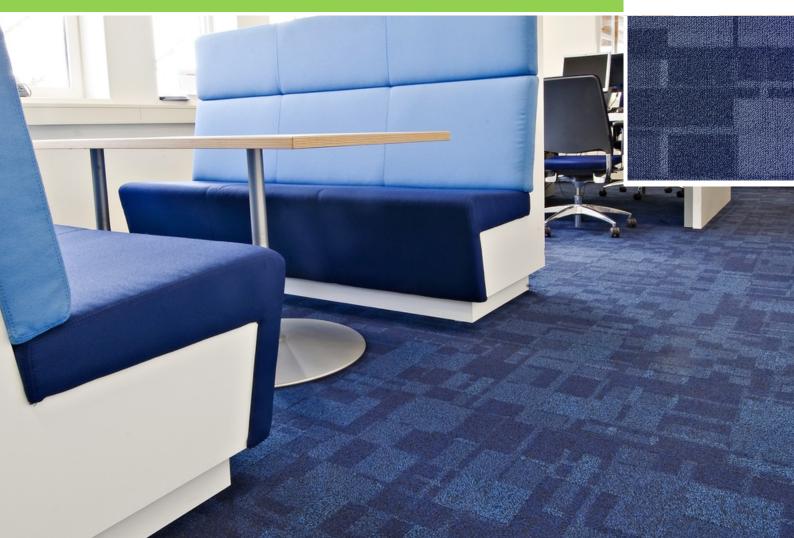
# **Tufted carpet tiles**

Pile material 800-900 g/m² polyamide 6 with 0 % recycled content and a modified bitumen backing

Desso®



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





# **General Information**

#### Desso<sup>®</sup> **Tufted carpet tiles** Pile material 800-900 g/m<sup>2</sup> polyamide 6 with 0 % recycled content and a modified bitumen backing Programme holder **Owner of the Declaration** IBU - Institut Bauen und Umwelt e.V. Desso BV Rheinufer 108 Taxandriaweg 15 D-53639 Königswinter 5142 PA Waalwijk, The Netherlands **Declaration number** Declared product / Declared unit EPD-DES-20130053-CBD1-EN 1m2 tufted carpet tiles with a surface pile of 800-900g/m<sup>2</sup> polyamide 6 and a modified bitumen backing. This Declaration is based on the Product **Category Rules:** The declaration applies for a group of tufted modular carpet tiles. Floor coverings, 07-2012 (PCR tested and approved by the independent expert It is only valid in conjunction with a valid PRODIS committee) The products are produced in the manufacturing site Issue date Dendermonde, Belgium (tufting) and in Waalwijk, The Netherlands (precoating and heavy coating). 08/05/2013 The owner of the declaration shall be liable for the underlying information and evidence. Valid to 07/05/2018 Verification menmanes The CEN Norm EN 15804 serves as the core PCR Independent verification of the declaration and data according to ISO 14025 Prof. Dr.-Ing. Horst J. Bossenmayer (President of Institut Bauen und Umwelt e.V.) internally externally Prof. Dr.-Ing. Hans-Wolf Reinhardt Dr. Eva Schmincke

# **Product**

# **Product description**

Tufted carpet tiles with a surface pile of solution-dyed polyamide 6 with 0% recycled content, and a modified bitumen backing.

The declaration applies for a group of products with a total pile-material input of 800-900 g/m².

The calculations refer to the average pile-material input of 850 g.

# **Application**

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

#### **Technical Data**

#### Constructional data

(Independent tester appointed by SVA)

Name	Value	Unit						
Product Form	Tiles	-						
Type of manufacture	Tufted	-						
Yarn type	PA 6	-						
Secondary backing	Heavy backing bitumen based with textile bottom and reinforcement	-						
Total pile weight	800-900	g/m²						
Total carpet weight	4400	g/m <sup>2</sup>						

Additional product properties according to EN 1307 can be found on the "Product Information System (PRODIS)" using the PRODIS registration number of the product.

www.pro-dis.info



# Base materials / Ancillary materials

Name	Value	Unit
Polyamide 6	20,6	%
Polyester	1,2	%
Polypropylene	1,0	%
Limestone	56,3	%
Bitumen	13,0	%
Aluminium hydroxide	1,2	%
Latex	5,4	%
Glass fibre	0,7	%
Additives	0,6	%

#### Reference service life

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

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

# LCA: Calculation rules

#### **Declared Unit**

#### Declared unit

Decialed utilit		
Name	Value	Unit
Declared unit	1	m <sup>2</sup>
Conversion factor to 1 kg (average product)	0.23	-
Mass reference (average product)	4,4	kg/m²

#### System boundary

Type of the EPD: Cradle to grave.

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

#### 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 of residual waste (except radioactive waste). Credits for electricity and steam from the incineration of production waste are aggregated.

# A4 Transport:

Transport of the packed textile floorcovering from manufacturing gate to the place of installation.

#### A5 Installation:

Installation of the textile floorcovering, production and transport of auxiliary material, waste processing up to the landfill of residual waste (except radioactive waste), the production of the amount of carpet that occurs as installation waste incl. its transport to the place of installation.

Credits for electricity and steam from the incineration of installation waste leave the product system.

#### B1 Use:

Indoor emissions during the use stage. Due to known VOC-decay curves of the product after the first year no product related VOC-emissions are relevant.

# **B2** Maintenance:

Cleaning of the textile floorcovering 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 with the assumed service time of the floor covering in the building considered.

# B3 - B7:

The modules are not relevant and therefore not declared.

# C1 De-construction:

De-construction of the floorcovering is made by handcraft and causes no additional impacts.

# C2 Transport:

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

# C3 Waste processing:

C3-0, C3-1: Landfill and waste incineration need no waste processing.

C3-2: Collection of the carpet waste, waste processing (granulating).

# C4 Disposal

C4-0, C4-1: Impacts from landfill or from waste incineration (credits leave the system boundaries), C4-2: The processed carpet waste leaves the system and need no disposal.

#### D Recycling potential:

D-0, D-1: Energy credits from landfill and from waste incineration (processing with < 60% efficiency), D-2: Transport from the reprocessing plant to the cement plant, substitution of material and fuel input in the cement kiln (substantial and energetic credits).

### 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.



# 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. All indicated values refer to the declared functional unit.

Transport to the construction site (A4)

Name	Value	Unit
Litres of fuel (truck, EURO 0-5 mix)	29.4	l/100km
Transport distance	700	km
Capacity utilisation (including empty runs)	85	%
Gross density of products transported	630	kg/m³

Installation in the building (A5)

Name	Value	Unit
Auxiliary (Fixing agent)	0.2	kg
Material loss	0.13	kg

Cardboard waste (packaging material) leaves the system for recycling. Installation waste is considered to be incinerated in a municipal waste incineration plant.

# Maintenance (B2)

Indication per m<sup>2</sup> and year

Name	Value	Unit
Maintenance cycle (wet cleaning)	1,5	1/year
Maintenance cycle (vacuum cleaning)	208	1/year
Water consumption (wet cleaning)	0.003	m³
Cleaning agent (wet cleaning)	0,06	kg
Electricity consumption	0.314	kWh

Further information on cleaning and maintenance see www.desso.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 0: 100% landfill

Scenario 1: 100% municipal waste incineration (MWI) 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)

Name	Value	Unit
Collected as mixed construction waste (scenario 0 and 1)	4.4	kg
Collected separately (scenario 2)	4.4	kg
Landfilling (scenario 0)	4.4	kg
Energy recovery (scenario 1)	4.4	kg
Energy recovery (scenario 2)	1,8	kg
Recycling (scenario 2)	2.6	kg

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

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

Recycling in the cement industry (scenario 2) The organic material of the carpet is used as secondary fuel in a cement kiln. It substitutes mainly lignite (62,7%), hard coal (27,3%) and petrol coke (10,0%).

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



# LCA: Results

# Information on not declared modules:

The modules B3 - B7 are not relevant during the service time of the carpet and are therefore not declared. Module C1 causes no additional impact (see "LCA: Calculation rules", "C1 De-construction") and is therefore not declared.

Module C2 represents the transport for scenario 0, 1 and 2.

DESC	RIP	TION (	OF THE	SYS	TEM E	BOUND	ARY	(X = IN	CLUD	ED IN	LCA:	MND =	MOD	ULE N	OT DE	CLAR	(ED)
		STAGE	CONST ON PR	TRUCTI OCESS AGE	I S		USE STAGE  END OF LIFE STAGE  BENEFITS AN LOADS BEYOND TH SYSTEM BOUNDARY			TS AND ADS ND THE TEM							
Raw material supply	Transport	Manufacturing	Transport	Construction- installation process	Use	Maintenance	Repair	Replacement <sup>1)</sup>	Refurbishment <sup>1)</sup>	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse- Recovery-	Recycling- potential
A1	A2	А3	A4	A5	B1	B2	В3	B4	B5	В6	B7	C1	C2	СЗ	C4	ı	ס
Х	Χ	Х	Х	Х	Х	Х	MND	MND	MND	MND	MND	MND	Х	Х	Х	)	X
RESU	JLTS	OF T	HE LC	4 - EN	IVIRO	NMENT	AL II	IPACT	: 1 m²	floorc	overir	ng					
Param eter	ι	Jnit	A1-A3	A4	A5	B1	B2	C2	СЗ	C3/1	C3/2	C4	C4/1	C4/2	D	D/1	D/2
GWP ODP	[kg CF	CO <sub>2</sub> -Eq.]	11.90 ] 1.12E-7 3.87E-2	12	2.09E-	0.00 8 0.00E+0 3 0.00E+0		13		0.00 0.00E+0	11	9.83 1.20E- 10 1.21E-3	8.30 7.20E- 10	0.00 0.00E+0	10	-2.56 -5.30E- 10	-0.41 -1.03E-7
EP POCP	[kg (Pi	6O <sub>2</sub> -Eq.] O <sub>4</sub> ) <sup>3</sup> - Eq.] then Eq.]	1.16E-2 4.16E-3	1.94E-4 -3.04E-	4 8.08E-4 4 3.09E-	4 0.00E+0 4 1.11E-4	1.99E- 1.79E-	1.08E-4 1-1.69E-	0.00E+0	0.00E+0	7.34E-6 8.21E-6	5.65E-3 1.45E-3	1.44E-3 3.91E-4	0.00E+0	-6.19E-5 -6.92E-5	-3.45E-4 -4.40E-4	-5.82E-4 -3.75E-4
ADPE		Sb Eq.] MJ]	4.58E-4 246.00		16.30	5 0.00E+0	6.55	0.14	0.00	0.00	4.05E-9 0.52	3.37	7.13	0.00E+0	-3.42E-0	-42.50	-6.92E-8 -68.10
	n Eu	trophicat	Caption  GWP = Global warming potential; ODP = Depletion 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: 1 m² floorcovering														
			HE I C./	4 - RE	SOUR	CF US	F · 1 r	n² floc	rcover	rina							
				A - RE		RCE US	E: 1 r	n² floc c2	rcover		C3/2	C4	C4/1	C4/2	D	D/1	D/2
<b>Parame</b> PERI	eter	Unit [MJ]	A1-A3		<b>A5</b> 1.99					<b>C3/1</b>				<b>C4/2</b> 0.00	<b>D</b> -0.73	<b>D/1</b> -1.71	<b>D/2</b> -0.18
PERI PERI	eter E M	Unit [MJ] [MJ]	<b>A1-A3</b> 10.20 0.00	<b>A4</b> 0.10 0.00	<b>A5</b> 1.99 0.00	<b>B1</b> 0.00 0.00	<b>B2</b> 0.50 0.00	0.01 0.00	0.00 0.00	<b>C3/1</b> 0.00 0.00	<b>C3/2</b> 0.09 0.00	<b>C4</b> 0.16 0.00	<b>C4/1</b> 0.32 0.00	0.00	-0.73 0.00	-1.71 0.00	-0.18 0.00
<b>Parame</b> PERI	eter E M	Unit [MJ]	<b>A1-A3</b> 10.20	<b>A4</b> 0.10	<b>A5</b> 1.99	<b>B1</b> 0.00	<b>B2</b> 0.50	<b>C2</b>	<b>C3</b>	<b>C3/1</b> 0.00	<b>C3/2</b> 0.09	<b>C4</b> 0.16	<b>C4/1</b> 0.32	0.00	-0.73	-1.71	-0.18
PERI PERI PERI PENE PENE	E M T RE	Unit  [MJ]  [MJ]  [MJ]  [MJ]  [MJ]	A1-A3  10.20 0.00 10.20 183.85 62.15	0.10 0.00 0.10 2.56 0.00	1.99 0.00 1.99 16.30 0.00	B1 0.00 0.00 0.00 0.00 0.00 0.00	0.50 0.00 0.50 6.55 0.00	0.01 0.00 0.01 0.14 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	C3/2 0.09 0.00 0.09 0.52 0.00	C4 0.16 0.00 0.16 3.37 0.00	C4/1 0.32 0.00 0.32 7.13 0.00	0.00 0.00 0.00 0.00 0.00	-0.73 0.00 -0.73 -4.38 0.00	-1.71 0.00 -1.71 -42.60 0.00	-0.18 0.00 -0.18 -68.10 0.00
PERI PERI PERI PENE PENE PENE	E M T RE RM	Unit  [MJ]  [MJ]  [MJ]  [MJ]  [MJ]  [MJ]	A1-A3  10.20  0.00  10.20  183.85  62.15  246.00	0.10 0.00 0.10 2.56 0.00 2.56	1.99 0.00 1.99 16.30 0.00 16.30	0.00 0.00 0.00 0.00 0.00	0.50 0.00 0.50 6.55	0.01 0.00 0.01 0.14	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	C3/2 0.09 0.00 0.09 0.52 0.00 0.52	C4 0.16 0.00 0.16 3.37 0.00 3.37	C4/1 0.32 0.00 0.32 7.13 0.00 7.13	0.00 0.00 0.00 0.00 0.00 0.00	-0.73 0.00 -0.73 -4.38 0.00 -4.38	-1.71 0.00 -1.71 -42.60	-0.18 0.00 -0.18 -68.10
PERI PERI PERI PENE PENE PENE SM RSF	E M T RE RM RT	Unit  [MJ]  [MJ]  [MJ]  [MJ]  [MJ]  [MJ]  [kg]  [MJ]	10.20 0.00 10.20 183.85 62.15 246.00 0.14 2.99E-3 1	0.10 0.00 0.10 2.56 0.00 2.56 0.00 1.62E-5	1.99 0.00 1.99 16.30 0.00 16.30 0.00 2.11E-4	B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0	0.50 0.00 0.50 6.55 0.00 6.55 0.00 2.03E-4	0.01 0.00 0.01 0.14 0.00 0.14 0.00 8.98E-7	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.09 0.00 0.09 0.52 0.00 0.52 0.00 1.06E-5	0.16 0.00 0.16 3.37 0.00 3.37 0.00 2.69E-3	C4/1 0.32 0.00 0.32 7.13 0.00 7.13 0.00 1.95E-4	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	-0.73 0.00 -0.73 -4.38 0.00 -4.38 0.00 -8.94E-5	-1.71 0.00 -1.71 -42.60 0.00 -42.60 0.00 -4.93E-4	-0.18 0.00 -0.18 -68.10 0.00 -68.10 0.00 -2.33E-5
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Parame PERI PERI PENE PENE PENE SM RSF NRS	E M T RE RM RT F rene	Unit  [MJ]  [MJ]  [MJ]  [MJ]  [MJ]  [MJ]  [kg]  [MJ]  [m³]  [m³]  [mon renewable gewable gewab	A1-A3  10.20 0.00 10.20 10.20 10.20 10.20 20.183.85 62.15 246.00 0.14 2.99E-3 1 3.14E-2 1 2.18E+1 9 Use of reprimary erewable poprimary e	0.10 0.00 0.10 2.56 0.00 2.56 0.00 1.62E-5 1.69E-4 0.98E-3 energy resembles	A5 1.99 0.00 1.99 16.30 0.00 16.30 0.00 2.11E-4 2.21E-3 1.48E+0 le prima esources energy e esources	B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0	0.50 0.00 0.50 6.55 0.00 6.55 0.00 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 exclud raw ma non ren raw ma	0.01 0.00 0.01 0.14 0.00 0.14 0.00 8.98E-7 9.41E-6 5.55E-4 terials; Fewable aterials; Rewable	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 0.00E+0 wable pri PERT = T	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.09 0.00 0.09 0.52 0.00 0.52 0.00 1.06E-5 1.11E-4 1.12E-1 ergy resources of renevasources se of noi	0.16 0.00 0.16 3.37 0.00 2.69E-3 6.42E-3 1.25E-1 ources u wable pri used as	0.32 0.00 0.32 7.13 0.00 7.13 0.00 1.95E-4 2.02E-3 3.39E-1 sed as r mary en raw ma ble prim	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 aw mate tergy res terials; Feary ener	-0.73 0.00 -0.73 -4.38 0.00 -4.38 0.00 -8.94E-5 -9.36E-4 -9.48E-1 -9.48E-1 -9.48E-1 -9.48E-1	-1.71 0.00 -1.71 -42.60 0.00 -42.60 0.00 -4.93E-4 -5.17E-3 -2.22E+0 RM = Use of urces; SN	-0.18 -0.00 -0.18 -68.10 0.00 -68.10 0.00 -2.33E-5 -2.41E-4 -3.25E-1 se of = Use of non M = Use
PERIPERING PENER P	rene of s	Unit  [MJ]  [MO]	A1-A3  10.20 0.00 10.20 183.85 62.15 246.00 0.14 3.14E-2 1 2.18E+1 9 Use of reprinary events of reprinary	0.10 0.00 0.10 2.56 0.00 2.56 0.00 1.62E-5 1.69E-4 1.998E-3 enewab energy resimary energy resimary energy resimance of the control	1.99 0.00 1.99 16.30 0.00 16.30 0.00 2.11E-4 2.21E-3 1.48E+0 le prima ssources energy e esources = Use o	B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	0.50 0.00 0.50 6.55 0.00 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 exclud raw manon ren raw ma pole seco	0.01 0.00 0.01 0.14 0.00 0.14 0.00 0.14 0.00 5.55E-4 ing rener terials; Fewable paterials; andary further	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.09 0.00 0.09 0.52 0.00 1.06E-5 1.11E-4 1.12E-1 ergy res of rene seo of non r	0.16 0.00 0.16 3.37 0.00 2.69E-3 6.42E-3 1.25E-1 ources u wable pri used as n renewable	0.32 0.00 0.32 7.13 0.00 7.13 0.00 1.95E-4 2.02E-3 3.39E-1 sed as r mary en raw ma ble prim	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 aw mate tergy res terials; Feary ener	-0.73 0.00 -0.73 -4.38 0.00 -4.38 0.00 -8.94E-5 -9.36E-4 -9.48E-1 -9.48E-1 -9.48E-1 -9.48E-1	-1.71 0.00 -1.71 -42.60 0.00 -42.60 0.00 -4.93E-4 -5.17E-3 -2.22E+0 RM = Use of urces; SN	-0.18 -0.00 -0.18 -68.10 0.00 -68.10 0.00 -2.33E-5 -2.41E-4 -3.25E-1 se of = Use of non M = Use
PERIPERING PENER P	E MM T T REE RMM PRITE TENER TO THE REE TO THE TO THE REE TO THE T	Multi	A1-A3  10.20 0.00 10.20 183.85 62.15 246.00 0.14 3.14E-2 1 2.18E+1 9 Use of reprinary events of reprinary	0.10 0.00 0.10 2.56 0.00 2.56 0.00 1.62E-5 1.69E-4 1.998E-3 enewab energy resimary energy resimary energy resimance of the control	1.99 0.00 1.99 16.30 0.00 16.30 0.00 2.11E-4 2.21E-3 1.48E+0 le prima ssources energy e esources = Use o	B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	0.50 0.00 0.50 6.55 0.00 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 exclud raw manon ren raw ma pole seco	0.01 0.00 0.01 0.14 0.00 0.14 0.00 0.14 0.00 5.55E-4 ing rener terials; Fewable paterials; andary further	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.09 0.00 0.09 0.52 0.00 1.06E-5 1.11E-4 1.12E-1 ergy res of rene seo of non r	0.16 0.00 0.16 3.37 0.00 2.69E-3 6.42E-3 1.25E-1 ources u wable pri used as n renewable	0.32 0.00 0.32 7.13 0.00 7.13 0.00 1.95E-4 2.02E-3 3.39E-1 sed as r mary en raw ma ble prim	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 aw mate tergy res terials; Feary ener	-0.73 0.00 -0.73 -4.38 0.00 -4.38 0.00 -8.94E-5 -9.36E-4 -9.48E-1 -9.48E-1 -9.48E-1 -9.48E-1	-1.71 0.00 -1.71 -42.60 0.00 -42.60 0.00 -4.93E-4 -5.17E-3 -2.22E+0 RM = Use of urces; SN	-0.18 -0.00 -0.18 -68.10 0.00 -68.10 0.00 -2.33E-5 -2.41E-4 -3.25E-1 se of = Use of non M = Use
Permerence	E M T T REE REMAINS TO THE REPORT TO THE REPORT TO THE REPORT TO THE REMAINS TO THE REMAINS THE REMAIN	Unit  [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ	A1-A3  10.20 0.00 10.20 183.85 62.15 246.00 0.14 2.99E-3 13.14E-2 12.18E+1 9 Use of reprimary erewable programmer evaluation of the programmer of the progra	0.10 0.00 0.10 0.00 0.10 0.2.56 0.00 1.62E-5 1.69E-4 0.998E-3 enewabe nergy remark energy ene	1.99 0.00 1.99 0.00 1.99 16.30 0.00 2.11E-4 2.21E-3 1.48E+0 le prima esources energy e esources = Use o	B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	0.50 0.00 0.50 0.50 0.50 6.55 0.00 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 F exclud raw manon ren raw manon ren raw manole seconds.	0.01 0.00 0.01 0.01 0.14 0.00 0.14 0.00 8.98E-7 9.41E-6 5.55E-4 ing rener terials; Fewable aterials; Indary fu	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	C3/2  0.09 0.00 0.09 0.52 0.00 1.06E-5 1.11E-4 1.12E-1 ergy resissources se of noi of non r	C4  0.16 0.00 0.16 3.37 0.00 2.69E-3 6.42E-3 1.25E-1 ources u wable pri used as n renewa enewable  C4  0.00	C4/1  0.32 0.00 0.32 7.13 0.00 7.13 0.00 1.95E-4 2.02E-3 3.39E-1 sed as r mary en raw ma ble prime e second	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	-0.73 -0.00 -0.73 -4.38 -0.00 -4.38 -0.00 -8.94E-5 -9.36E-4 -9.48E-1	-1.71 -0.00 -1.71 -42.60 -0.00 -42.60 -0.00 -4.93E-4 -5.17E-3 -2.22E+0	-0.18 -0.00 -0.18 -68.10 -0.00 -68.10 0.00 -2.33E-5 -2.41E-4 -3.25E-1 se of = Use of non M = Use et fresh
Perame PERI PERI PENI PENI PENI PENI SM RSF NRS FW  Caption  RESU 1 m² 1 Parame HWI NHW	E M T T T RE RE REMAIN RRT PRINT PRI	Unit  [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ	A1-A3  10.20 0.00 10.20 10.20 183.85 62.15 246.00 0.14 2.99E-3 3.14E-2 12.18E+1 9 12.18E+1 9 13.14E-2 11.19 14.14 15.14 15.14 15.15 16.15	0.10 0.00 0.10 0.00 0.10 0.2.56 0.00 0.62E-5 1.69E-4 9.98E-3 perimary connergy real; RSF  A — Ol  A4 0.00 0.10E-3	1.99 0.00 1.99 16.30 0.00 16.30 0.00 2.11E-4 2.21E-3 1.48E+0 le prima seources energy e esources = Use o	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.50 0.00 0.50 0.50 0.50 0.50 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 exclud raw manon ren raw manon ren raw manole seco	0.01 0.00 0.01 0.01 0.14 0.00 0.14 0.00 8.98E-7 9.41E-6 5.55E-4 ing rener terials; Fewable laterials; Indary fu	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	C3/2  0.09 0.00 0.09 0.52 0.00 1.06E-5 1.11E-4 1.12E-1 ergy resort for renew sources see of nor of renew C3/2  0.00 0.00 0.1.17E-1	0.16 0.00 0.16 3.37 0.00 2.69E-3 6.42E-3 1.25E-1 ources u wable pri used as n renewa enewable  C4 0.00 3.35E+0	C4/1  0.32  0.00  0.32  7.13  0.00  7.13  0.00  1.95E-4  2.02E-3  3.39E-1  sed as r mary en raw ma ble prime e second  C4/1  0.59  8.05E-1	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	-0.73 -0.00 -0.73 -4.38 -0.00 -4.38 -0.00 -8.94E-5 -9.36E-4 -9.48E-1 -frials; PE Ources; PENRM = gy resot s; FW =	-1.71 -0.00 -1.71 -42.60 -0.00 -4.93E-4 -5.17E-3 -2.22E+0	-0.18 -0.00 -0.18 -68.10 -0.00 -68.10 -0.00 -2.33E-5 -2.41E-4 -3.25E-1 se of reliable of the second
Parame PERI PERI PENE PENE PENE SM RSF NRS FW  Caption  RESU 1 m² 1 Parame HWI NHW RWI	E MA T T T RE REMAIN RRT PROPERTY OF STATE OF ST	Unit  [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ	A1-A3  10.20 0.00 10.20 10.20 183.85 62.15 246.00 0.14 2.99E-3 3.14E-2 12.18E+1 9 12.18E+1 9 13.14E-2 11.19 14.14 15.14 15.14 15.15 16.15	0.10 0.00 0.10 0.00 0.10 0.2.56 0.00 0.62E-5 1.69E-4 9.98E-3 perimary connergy real; RSF  A — Ol  A4 0.00 0.10E-3	1.99 0.00 1.99 16.30 0.00 16.30 0.00 2.11E-4 2.21E-3 1.48E+0 le prima seources energy e esources = Use o	B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	0.50 0.00 0.50 0.50 0.50 0.50 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 exclud raw manon ren raw manon ren raw manole seco	0.01 0.00 0.01 0.01 0.14 0.00 0.14 0.00 8.98E-7 9.41E-6 5.55E-4 ing rener terials; Fewable laterials; Indary fu	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	C3/2  0.09 0.00 0.09 0.52 0.00 1.06E-5 1.11E-4 1.12E-1 ergy resort for renew sources see of nor of renew C3/2  0.00 0.00 0.1.17E-1	C4  0.16 0.00 0.16 3.37 0.00 2.69E-3 6.42E-3 1.25E-1 ources u wable pri used as n renewa enewable  C4  0.00	C4/1  0.32  0.00  0.32  7.13  0.00  7.13  0.00  1.95E-4  2.02E-3  3.39E-1  sed as r mary en raw ma ble prime e second  C4/1  0.59  8.05E-1	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	-0.73 -0.00 -0.73 -4.38 -0.00 -4.38 -0.00 -8.94E-5 -9.36E-4 -9.48E-1 -frials; PE Ources; PENRM = gy resot s; FW =	-1.71 -0.00 -1.71 -42.60 -0.00 -4.93E-4 -5.17E-3 -2.22E+0	-0.18 -0.00 -0.18 -68.10 -0.00 -68.10 -0.00 -2.33E-5 -2.41E-4 -3.25E-1 se of reliable of the second
Peramo PER PENF PENF PENF SM RSF NRSS FW  Caption  RESU 1 m² 1 Paramo HWI NHW RWII CRU MFF	E E E E E E E E E E E E E E E E E E E	Unit  [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ	A1-A3  10.20 0.00 10.20 10.20 183.85 62.15 246.00 0.14 2.199E-3 3.14E-2 12.18E+1 9 Use of reorimary erewable primary ery material  HE LCA ing A1-A3 0.01 6.57E+0 9 3.23E-3 0.00 0.09	0.10 0.00 0.00 0.10 2.56 0.00 2.56 0.00 2.56 0.00 2.56 0.00 2.56 0.00 2.56 0.00 0.00 0.00 0.00 0.00 0.00	1.99 0.00 1.99 16.30 0.00 16.30 0.00 2.11E-4 2.21E-3 1.48E+0 le prima esources energy e esources = Use o JTPUT  A5 0.02 4.81E-1 2.37E-4 0.00 0.12	B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	B2 0.50 0.00 0.50 0.50 6.55 0.00 6.55 0.00 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 exclud raw manon ren raw male second VS AN B2 0.00 6.55 0.00 0.00 0.00	0.01 0.00 0.01 0.14 0.00 0.14 0.00 0.14 0.00 8.98E-7 9.41E-6 5.55E-4 ing rener terials; Fewable paterials; Indary fu  D WA  C2 0.00 5.06E-4 1.98E-7 0.00 0.00	C3  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00E+0  0.00E+0  PENT = Torimary e PENT = Torimar	C3/1  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00E+0  0.00E+0  0.00E+0  Total use energy re Total use energy re C3/1  0.00  0.00  0.00E+0	C3/2  0.09 0.00 0.09 0.52 0.00 0.52 0.00 1.06E-5 1.11E-4 1.12E-1 ergy resources se of nor of non r  C3/2 0.00 1.17E-1 7.63E-5 0.00 0.00	0.16 0.00 0.16 0.00 0.16 3.37 0.00 3.37 0.00 2.69E-3 6.42E-3 1.25E-1 ources u wable pri used as n renewa enewabl  C4 0.00 3.35E+0 6.17E-5 0.00 0.00	C4/1  0.32 0.00 0.32 7.13 0.00 7.13 0.00 1.95E-4 2.02E-3 3.39E-1 sed as r mary en raw ma ble prim e secon  C4/1  0.59 8.05E-1 2.14E-4 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	-0.73 -0.00 -0.73 -4.38 -0.00 -4.38 -0.00 -4.38 -9.36E-4 -9.48E-1 -9.36E-4 -9.48E-1 -9.36F-4 -0.00 -0.00	-1.71 -0.00 -1.71 -42.60 -0.00 -42.60 -0.00 -4.93E-4 -5.17E-3 -2.22E+0	-0.18 -0.00 -0.18 -68.10 -0.00 -68.10 -0.00 -68.11 -2.33E-5 -2.41E-4 -3.25E-1 se of = Use of non M = Use tresh -5.32E+1 -1.11E-4 -0.00 -0.00
Permoderation Pe	E M M T T RE RE REPORTED TO THE REPORTED TO TH	Unit  [MJ]	A1-A3  10.20  0.00  10.20  10.20  10.20  183.85  62.15  246.00  0.14  2.99E-3  13.14E-2  12.18E+11  Use of reprimary experimary experimary experiments of the primary experiments of th	A4  0.10  0.00  0.00  0.10  2.56  0.00  2.56  0.00  1.69E-5  1.69E-4  9.98E-3  energy reality	1.99 0.00 1.99 16.30 0.00 16.30 0.00 2.11E-3 1.48E+0] le prima esources = Use or JTPUT  A5 0.02 4.81E-1 2.37E-4 0.00 0.12 0.00	B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	B2 0.50 0.00 0.00 0.50 6.55 0.00 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 exclud raw manon ren raw male second VS AN B2 0.00 3.20E-1 3.95E-4 0.00 0.00 0.00	0.01 0.00 0.01 0.00 0.014 0.00 0.14 0.00 8.98E-7 5.55E-4 ing rener terials; I rewable exterials; Indary fu  D WA  C2 0.00 5.06E-4 1.98E-7 0.00 0.00	C3  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00E+0	C3/1  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00E+0  0.00E+0  Total use energy resorted use energy res	C3/2  0.09 0.00 0.09 0.52 0.00 0.52 0.00 1.06E-5 1.11E-4 1.12E-1 ergy res of renevisources se of nor of non r  ORIES  C3/2 0.00 1.17E-1 7.63E-5 0.00 0.00 0.00	C4  0.16 0.00 0.16 0.00 0.16 3.37 0.00 3.37 0.00 2.69E-3 1.25E-1 ources u wable pri used as n renewa enewable  C4 0.00 3.35E+0 6.17E-5 0.00 0.00 0.00	C4/1  0.32 0.00 0.32 7.13 0.00 7.13 0.00 1.95E-4 2.02E-3 3.39E-1 sed as r mary en raw ma ble prime e second  C4/1  0.59 8.05E-1 2.14E-4 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	-0.73 -0.00 -0.73 -4.38 -0.00 -4.38 -0.00 -4.38 -9.36E-4 -9.48E-1	-1.71 -0.00 -1.71 -42.60 -0.00 -42.60 -0.00 -4.93E-4 -5.17E-3 -2.22E+0	-0.18 -0.00 -0.18 -68.10 0.00 -68.10 0.00 -2.33E-5 -2.41E-4 -3.25E-1 se of = Use of non M = Use tet fresh -5.32E+1 -1.11E-4 0.00 0.00 0.00 0.00
Perame PERI PENI PENI PENI PENI PENI PENI SM RSF NRS FW  Caption  Caption  HWI NHW RWI CRU MIFF MEF EEE	E M T T REE REMAINS RT RESERVE REPORT	Unit  [MJ]  PERE = ewable percondare wable percondare wable percondare wable wable percondare wable	A1-A3  10.20 0.00 10.20 10.20 10.20 183.85 62.15 246.00 0.14 2.99E-3 13.14E-2 19 Use of reprimary erewable programmer evable ev	A4 0.10 0.00 0.00 0.00 0.00 0.00 0.00 0.0	1.99 0.00 1.99 0.00 1.99 16.30 0.00 16.30 0.00 2.11E-4 2.21E-3 1.48E+0 le prima esources energy e esource = Use o 0 USE 0.02 4.81E-1 2.37E-4 0.00 0.12 0.00 0.12	B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	B2 0.50 0.00 0.50 0.50 0.50 0.50 0.00 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 Fexclud raw manon ren raw manon ren raw manole second se	0.01 0.00 0.01 0.01 0.00 0.14 0.00 0.14 0.00 8.98E-7 9.41E-6 5.55E-4 ing rener terials; Fewable paterials; Indary further for the following further	C3  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00E+0  0.00  0.00E+0  0.00  0.00  C3  0.00	C3/1  0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0	C3/2  0.09 0.00 0.09 0.52 0.00 1.06E-5 1.11E-4 1.12E-1 ergy res of renewsources se of nor ORIES  C3/2  0.00 1.17E-1 7.63E-5 0.00 0.00 0.00	C4  0.16 0.00 0.16 3.37 0.00 3.37 0.00 2.69E-3 6.42E-3 1.25E-1 oources u wable pri used as a renewalenewable  C4  0.00 3.35E+0 6.17E-5 0.00 0.00 0.00 1.86	C4/1  0.32 0.00 0.32 7.13 0.00 7.13 0.00 1.95E-4 2.02E-3 3.39E-1 sed as r mary en raw ma ble prim e second  C4/1  0.59 8.05E-1 2.14E-4 0.00 0.00 3.94	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	-0.73 -0.00 -0.73 -4.38 -0.00 -4.38 -0.00 -4.38 -0.00 -4.38 -9.48E-1 -9.48E-1 -fials; PE ources; PE NRM = gy resous; FW =  -0.00 -9.90E-1 -6.44E-4 -0.00 -0.00 -0.00 -0.00	-1.71 -0.00 -1.71 -42.60 -0.00 -42.60 -0.00 -4.93E-4 -5.17E-3 -2.22E+0  ERM = Us PENRE = Use of r  D/1 -0.00 -2.35E+0 -1.50E-3 -0.00 -0.00 -0.00	-0.18 -0.00 -0.18 -68.10 -0.00 -68.10 -0.00 -2.33E-5 -2.41E-4 -3.25E-1 Se of = Use of non M = Use iter fresh  D/2 -0.00 -5.32E+1 -1.11E-4 -0.00 -0.00 -0.00
Permoderation Pe	E M T T REE REMAINS TO SERVICE TO	Unit  [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ	A1-A3  10.20  0.00  10.20  10.20  10.20  10.20  10.20  10.20  183.85  62.15  246.00  0.14  2.99E-3  13.14E-2  19  Use of reprimary enewable programmer enewable	A4 0.10 0.00 0.00 0.00 0.00 0.00 0.00 0.0	A5 1.99 0.00 1.99 0.00 1.99 16.30 0.00 16.30 0.00 2.11E-4 2.21E-3 1.48E+0 le prima ssources energy e esources = Use o  JTPU  A5 0.02 4.81E-1 2.37E-4 0.00 0.12 0.00 0.12 0.81	B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	B2 0.50 0.00 0.50 0.50 0.50 0.50 0.00 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 r exclud raw manon ren raw manole second VS AN  B2 0.00 5.20E-1 3.95E-4 0.00 0.00 0.00 0.00	0.01 0.00 0.01 0.01 0.00 0.14 0.00 0.14 0.00 8.98E-7 9.41E-6 5.55E-4 ing rener terials; Fewable paterials; Indary further for the following further	C3  0.00  0.00  0.00  0.00  0.00  0.00  0.00  0.00E+0	C3/1  0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.	C3/2  0.09 0.00 0.09 0.52 0.00 1.06E-5 1.11E-4 1.12E-1 ergy res of renewsources se of nor ORIES  C3/2  0.00 1.17E-1 7.63E-5 0.00 0.00 0.00 0.00	C4  0.16 0.00 0.16 3.37 0.00 3.37 0.00 2.69E-3 6.42E-3 1.25E-1 oources u wable pri used as a renewable	C4/1  0.32 0.00 0.32 7.13 0.00 7.13 0.00 1.95E-4 2.02E-3 3.39E-1 sed as r mary en raw ma ble prim e second  C4/1  0.59 8.05E-1 2.14E-4 0.00 0.00 3.94 26.90	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	-0.73 -0.00 -0.73 -4.38 -0.00 -4.38 -0.00 -4.38 -0.00 -4.38 -9.48E-1 -9.48E-1 -fials; PE ources; PE NRM = gy resous; FW =  -0.00 -9.90E-1 -6.44E-4 -0.00 -0.00 -0.00 -0.00 -0.00	-1.71 -0.00 -1.71 -42.60 -0.00 -42.60 -0.00 -4.93E-4 -5.17E-3 -2.22E+0  RM = Us PENRE = Use of r  D/1 -0.00 -2.35E+0 -1.50E-3 -0.00 -0.00 -0.00 -0.00	-0.18 -0.00 -0.18 -68.10 -0.00 -68.10 -0.00 -68.11 -2.33E-5 -2.41E-4 -3.25E-1 Se of = Use of non M = Use if resh  D/2 -0.00 -5.32E+1 -1.11E-4 -0.00 -0.00 -0.00 -0.00

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

thermal energy



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