## **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)

Declaration number EPD-DES-20130055-CBD1-EN

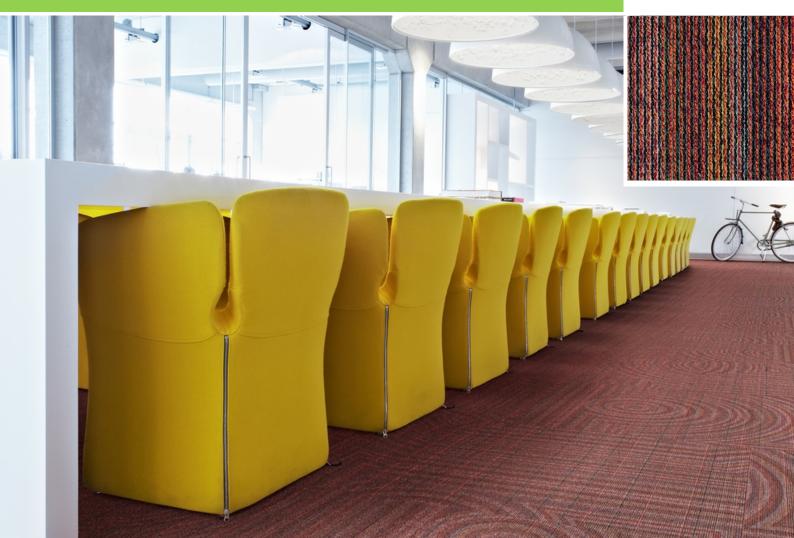
 Issue date
 08/05/2013

 Valid to
 07/05/2013

# Tufted carpet tiles Pile material 500-600 g/m² polyamide 6 with 100 % 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 500-600 g/m<sup>2</sup> polyamide 6 with 100 % 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-20130055-CBD1-EN 1m2 tufted carpet tiles with a surface pile of 500-600 g/m² recycled polyamide 6 and a modified bitumen backing. This Declaration is based on the Product Scope: **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) licence. 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 internally externally (President of Institut Bauen und Umwelt e.V.)

#### Prof. Dr.-Ing. Hans-Wolf Reinhardt (Chairman of SVA)

#### **Product**

#### **Product description**

Tufted carpet tiles with a surface pile of solution-dyed polyamide 6 with 100% recycled content, and a modified bitumen backing.

The declaration applies for a group of products with a total pile-material input of 500-600 g/m<sup>2</sup>.

The calculations refer to the average pile-material input

The recycled content out of total weight amount to 13,4%.

#### **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**

Dr. Eva Schmincke

(Independent tester appointed by SVA)

#### **Constructional data**

Name	Value	Unit
Product Form	Tiles	-
Type of manufacture	Tufted	-
Yarn type	100% recycled PA 6	-
	Heavy backing bitumen	
Secondary backing	based with textile bottom	-
	and reinforcement	
Total pile weight	500-600	g/m²
Total carpet weight	4100	g/m²

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	14,8	%
Polyester	1,3	%
Polypropylene	1,1	%
Limestone	60,4	%
Bitumen	14,0	%
Aluminium hydroxide	1,3	%
Latex	5,8	%
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**

Name	Value	Unit
Declared unit	1	m <sup>2</sup>
Conversion factor to 1 kg (average product)	0.24	-
Mass reference (average product)	4,1	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	760	kg/m³

Installation in the building (A5)

Name	Value	Unit
Auxiliary (Fixing agent)	0.2	kg
Material loss	0.12	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)	4.1	kg
Collected separately (scenario 2)	4.1	kg
Landfilling (scenario 0)	4.1	kg
Energy recovery (scenario 1)	4.1	kg
Energy recovery (scenario 2)	1,5	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.

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GWP		O <sub>2</sub> -Eq.]	6.73	0.172	0.567	0.003	0.29	0.01	0	0	0.027	9.16	7.74	0	-0.231	-2.38	-0.349
ODP			1.04E-7		1.96E-8				0.0E+0			1.1E-10					
AP EP		O <sub>2</sub> -Eq.]	3.53E-2 1.19E-2		2.01E-3 7.32E-4				0.0E+0 0.0E+0		1.3E-4	1.12E-3 5.27E-3		0.0E+0		-3.89E-3 -3.22E-4	
POCP		) <sub>4</sub> )³- Eq.] nen Eg.]	2.54E-3	_					0.0E+0			1.35E-3			-6.45E-5		
ADPE		Bb Eq.]		6.42E-9					0.0E+0			4.25E-8				-1.41E-7	
ADPF		/J]	134	2.39	8.09	0.02.0	6.55	0.132	0.0210	0.0210	0.483	3.14	6.64	0.02.0	-4.07	-39.6	-58.7
GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non fossil resources; ADPF = Abiotic depletion potential for fossil resources  RESULTS OF THE LCA - RESOURCE USE: 1 m² floorcovering																	
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Parame	eter		A1 - A3	A4	SOUR A5	CE US	E: 1 r B2	n² floo C2	rcover c3	C3/1	C3/2	C4	C4/1				
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Parame PERI PENI PENI PENI PENI SIM PENIF SIM FW	E	Unit A  [MJ]  [MJ]  [MJ]  [MJ]  [kg]  [MJ]  [kg]  [MJ]  1  PERE = wable pinon rene wable piccondang	A1 - A3	A4 0.094 0 0.094 0 0.094 2.39 0 2.39 0 5.51E-5 5.58E-4 3.32E-3 1 enewable energy reimary energy reimary energy renergy	A5 1.77 0 1.77 8.09 0 8.09 0.014 1.12E-4 1.17E-3 1.02E+0 e primary sources energy expenses = Use of	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	B2 0.5 0 0.5 6.55 0 2.03E-4 2.13E-3 8.49E-1 r excludiraw manon ren raw manole second	n² floo  C2  0.005 0 0.005 0.132 0 0.132 0 8.37E-7 8.77E-6 5.17E-4 ing renevable paterials; Fewable paterials; Indary fu	C3  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.081 0.081 0.484 0 0.484 0 9.87E-6 1.03E-4 1.05E-1 ergy res of renevissources se of non r	C4  0.151 0 0.151 3.14 0 3.14 0 2.51E-3 5.99E-3 1.16E-1 ources uswable prisused as n renewable	C4/1  0.299 0 0.299 6.64 0 1.81E-4 1.88E-3 3.16E-1 sed as r.mary en raw ma	0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mates terials; F ary ener	-0.679 0 -0.679 -4.08 0 -4.08 0 -8.33E-5 -8.72E-4 -8.83E-1 rials; PE ources; F ENRM = gy resou	-1.59 0 -1.59 -39.7 0 -39.7 0 -4.59E-4 -4.82E-3 -2.07E+0 RM = Us PENRE : = Use of	-0.161 0 -0.161 -58.7 0 -58.7 0 -2.03E-5 -2.09E-4 -2.82E-1 se of = Use of non M = Use
Parame PERI PENI PENI PENI PENI SIM PENI SIM Caption	E I I I I I I I I I I I I I I I I I I I	Unit A  [MJ]  [MJ]  [MJ]  [MJ]  [kg]  [MJ]  [kg]  [MJ]  1  PERE = wable pinon rene wable piccondang	A1 - A3	A4 0.094 0 0.094 0 0.094 2.39 0 2.39 0 5.51E-5 5.58E-4 3.32E-3 1 enewable energy reimary energy reimary energy renergy	A5 1.77 0 1.77 8.09 0 8.09 0.014 1.12E-4 1.17E-3 1.02E+0 e primary sources energy expenses = Use of	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	B2 0.5 0 0.5 6.55 0 2.03E-4 2.13E-3 8.49E-1 r excludiraw manon ren raw manole second	n² floo  C2  0.005 0 0.005 0.132 0 0.132 0 8.37E-7 8.77E-6 5.17E-4 ing renevable paterials; Fewable paterials; Indary fu	C3  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.081 0.081 0.484 0 0.484 0 9.87E-6 1.03E-4 1.05E-1 ergy res of renevissources se of non r	C4  0.151 0 0.151 3.14 0 3.14 0 2.51E-3 5.99E-3 1.16E-1 ources uswable prisused as n renewable	C4/1  0.299 0 0.299 6.64 0 1.81E-4 1.88E-3 3.16E-1 sed as r.mary en raw ma	0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mates terials; F ary ener	-0.679 0 -0.679 -4.08 0 -4.08 0 -8.33E-5 -8.72E-4 -8.83E-1 rials; PE ources; F ENRM = gy resou	-1.59 0 -1.59 -39.7 0 -39.7 0 -4.59E-4 -4.82E-3 -2.07E+0 RM = Us PENRE : = Use of	-0.161 0 -0.161 -58.7 0 -58.7 0 -2.03E-5 -2.09E-4 -2.82E-1 se of = Use of non M = Use
Parame PERI PERI PENI PENI PENI SM RSF FW Captio	E	Unit A  [M.] [M.] [M.] [M.] [M.] [M.] [M.] [M.	A1 - A3  8.63 0 8.63 10 8.63 81.41 53.59 135 0.605 1.8E-3 1.8E-2 1.83E+1 9 Use of rerimary erewable purimary erewable pu	A4  0.094 0 0.094 0 0.0994 0 0.094 0 2.39 0 2.39 0 5.51E-5 5.58E-4 1.32E-3 1 enewable hergy rerimary energy real; RSF =	A5 1.77 0 1.77 8.09 0 8.09 0.014 1.12E-4 1.17E-3 1.02E+0 e primary sources energy expending expenses even of the control of th	B1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	B2 0.5 0 0.5 0 0.5 6.55 0 6.55 0 2.03E-4 2.13E-3 8.49E-1 r exclud raw ma non ren raw ma ble seco	0.005 0 0.005 0 0.005 0 1.132 0 0.132 0 8.37E-7 8.77E-6 5.17E-4 ing renee terials; I ewable paterials; I endary fu	C3  0 0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 PERT = Torimary e PENRT = els; NRS wate STE C.	C3/1  0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 Total use	C3/2  0.081 0 0.081 0.484 0 0.484 0 9.87E-6 1.03E-4 1.05E-1 ergy res of renevisources se of non of non r	C4  0.151 0 0.151 3.14 0 3.14 0 2.51E-3 5.99E-3 1.16E-1 ources uswable prisused as n renewarenewable	C4/1  0.299 0 0.299 6.64 0 6.64 0 1.81E-4 1.88E-3 3.16E-1 sed as r. mary en raw ma ble prime e second	0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mate ergy resterials; F erials; F eary fuel	-0.679 0 -0.679 -4.08 0 -4.08 0 -8.33E-5 -8.72E-4 -8.83E-1 rials; PEources; I	-1.59 0 -1.59 -39.7 0 -39.7 0 -4.59E-4 -4.82E-3 -2.07E+0 RM = Us PENRE : = Use of Inces; SN Use of n	-0.161 0 -0.161 -58.7 0 -58.7 0 -58.8 -2.03E-5 -2.09E-4 -2.82E-1 se of = Use of non M = Use the fresh
Parame PERI PENI PENI PENI PENI SM RSF NRS FW  Caption  RESU 1 m² 1  Parame HWI	E	Unit A  [M.] [M.] [M.] [M.] [M.] [M.] [M.] [M.	A1 - A3  8.63 0 8.63 0 8.63 81.41 53.59 135 0.605 1.8E-3 1.89E-2 1.89E-2 1.89E-0 1.89E	A4 0.094 0 0.094 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0 0.094 0 0 0 0.094 0 0 0 0 0 0.094 0 0 0 0 0 0.094 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	A5 1.77 0 1.77 8.09 0 8.09 0.014 1.12E-4 1.12E-4 1.12E-4 1.12E-4 1.17E-3 1.02E+0 1.17E-3 1.02E+0 1.17E-3 1.02E+0 1.17E-3 1.02E+0 1.17E-3 1.02E+0 1.17E-3 1.02E+0 1.02E	B1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	B2 0.5 0 0.5 6.55 0 6.55 0 2.03E-4 2.13E-3 3.49E-1 raw manon ren raw	0.005 0.005 0.005 0.132 0.132 0.132 0.8.37E-7 8.77E-6 5.17E-4 ing renew terials; Fewable paterials; Indary fu	C3  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C3/1  0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 Total use nergy re Total use r  ATEG	C3/2  0.081 0 0.081 0.484 0 0.484 0 9.87E-6 1.03E-1 ergy res of renee sources se of nor of rene control of non r	C4  0.151 0 0.151 3.14 0 3.14 0 2.51E-3 5.99E-3 1.16E-1 ources uswable pricused as a renewalerenewable	C4/1  0.299 0 0.299 6.64 0 6.64 0 1.81E-4 1.88E-3 3.16E-1 sed as r. mary en raw ma ble prime e second	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	-0.679 0 -0.679 4.08 0 -4.08 0 -8.33E-5 -8.72E-4 -8.83E-1 rials; PE ources; I PENRM = gy resou s; FW =	-1.59 0 -1.59 -39.7 0 -39.7 0 -4.59E-4 -4.82E-3 -2.07E+0 RM = Us PENRE : = Use of n	-0.161 0 -0.161 -58.7 0 -58.7 0 -2.03E-5 -2.09E-4 -2.82E-1 se of = Use of non M = Use et fresh
Parame PERI PERI PENE PENE PENE SM RSF NRS FW  Caption  RESU 1 m² 1 Parame HWI NHW	E	Unit A  [M.]  [M.]	A1 - A3 8.63 0 8.63 0 8.63 0 8.63 0 8.63 1.81 1.85 1.85 1.85 1.88 1.89 1.82 1.83 1.89	A4 0.094 0 0.094 0 0.094 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0	A5 1.77 0 1.77 8.09 0 8.09 0.014 1.12E-4 1.17E-3 1.02E+0 1.02E+0 28 sources = Use of  JTPUT  A5 0.017 1.682E-1	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	B2 0.5 0 0.5 0 0.5 6.55 0 6.55 0 2.03E-4 2.13E-3 8.49E-1 rexclud raw manon ren raw manole second VS AN B2 0 6.2E-1	0.005 0.005 0.005 0.132 0 0.132 0 8.37E-7 8.77E-6 5.17E-4 ing renewterials; Indary furtherials; Indary fur	C3  0 0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 FERT = Torimary e PENRT = els; NRS wate STE C.  C3 0 0.0E+0	C3/1  0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 mary enrotal use energy re: Total u: F = Use r  ATEG	C3/2  0.081 0 0.081 0.484 0 0.484 0 9.87E-6 1.03E-4 1.05E-1 ergy res of renev sources se of nor of ron r	C4  0.151 0 0.151 3.14 0 3.14 0 2.51E-3 5.99E-3 1.16E-1 0 wable pri used as n renewa enewable  C4 0 3.12E+0	C4/1  0.299 0 0.299 6.64 0 6.64 0 1.81E-4 1.88E-3 3.16E-1 sed as r. mary en raw ma ble prime e second  C4/1  0.547 7.5E-1	0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mate ergy resterials; F ary enerdary fuel	-0.679 0 -0.679 -4.08 0 -4.08 0 -8.33E-5 -8.72E-4 -8.83E-1 rials; PE DENRM = gy resou s; FW =	-1.59 0 -1.59 -39.7 0 -39.7 0 -4.59E-4 -4.82E-3 -2.07E+0 RM = Us PENRE: = Use of n  D/1 0 -2.17E+0	-0.161 0 -0.161 -58.7 0 -58.7 0 -2.03E-5 -2.09E-4 -2.82E-1 se of = Use of non M = Use et fresh
Parame PERI PERI PENI PENI PENI PENI RSF NRS FW  Caption  RESU 1 m² 1 Parame HWI NHW RWI	E	Unit A  [M.]  [M.]	A1 - A3  8.63  0  8.63  0  8.63  0  8.63  0  8.63  0  8.63  0  8.63  0  8.63  0  8.63  0  8.63  0  8.63  0  8.63  0  8.63  0  8.63  0  8.63  1  8.81.41  1  5.3.59  1.8E-3  1.8E-3  1.8E-3  1.89E-2  1.88E-1  9  Use of regularization of regularizati	A4 0.094 0 0.094 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.51E-5 1 0.58E-4 1 0.32E-3 1 0.32E-3 1 0.32E-3 1 0.094 0 0 0.49E-3 3 0.32E-6 1	A5 1.77 0 1.77 8.09 0 8.09 0.014 1.12E-4 1.17E-3 1.02E+0 1.02E+0 28 sources = Use of  JTPUT  A5 0.017 6.682E-1 1.63E-4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	B2 0.5 0 0.5 6.55 0 6.55 0 2.03E-4 2.13E-3 8.49E-1 excluding raw manon ren raw manole second VS AN B2 0 6.2E-1 3.95E-4	0.005 0.005 0.005 0.132 0 0.132 0 8.37E-7 8.77E-6 5.17E-4 ing renewable paterials; Indary furnials; Indary f	C3  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C3/1  0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 Total use results of the second use of th	C3/2  0.081 0 0.081 0.484 0 0.484 0 9.87E-6 1.03E-4 1.05E-1 ergy res of renew sources se of nor of renew C3/2 0 1.09E-1 7.11E-5	C4  0.151 0 0.151 3.14 0 3.14 0 2.51E-3 5.99E-3 1.16E-1 ouvable pri u used as n renewal enewable  C4 0 3.12E+0 5.75E-5	C4/1  0.299 0 0.299 6.64 0 6.64 0 1.81E-4 1.88E-3 3.16E-1 sed as r. mary en raw ma ble prime e second  C4/1  0.547 7.5E-1 1.99E-4	0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mate ergy resetrals; F early enerdary fuel	-0.679 0 -0.679 -4.08 0 -4.08 0 -8.33E-5 -8.72E-4 -8.83E-1 rials; PE ources; F ENRM = gy reso. s; FW =	-1.59 0 -1.59 -39.7 0 -39.7 0 -4.59E-4 -4.82E-3 -2.07E+0 RM = Us PENRE: = Use of irrces; SN Use of n  -2.17E+0 -1.4E-3	-0.161 -0.161 -58.7 0 -58.7 0 -2.03E-5 -2.09E-4 -2.82E-1 se of = Use of non M = Use tresh  D/2 0 -4.59E+1 -9.66E-5
Parame PERIPERING PENIPERING PENI	E	Unit A  [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ	A1 - A3  8.63  0  8.63	0.094 0 0.094 2.39 0 2.39 0 2.39 0 5.51E-5 5.58E-4 3.32E-3 1 0 0 1.49E-3 3.32E-6 0	A5 1.77 0 1.77 0 1.77 8.09 0 8.09 0.014 1.12E-4 1.17E-3 1.02E+0 e primary sources energy executes e Use of  JTPUT  A5 0.017 1.682E-1 0 0	Section	B2 0.5 0 0.5 0 0.5 0 6.55 0 6.55 0 2.03E-4 2.13E-3 8.49E-1 r excludiraw manon ren r raw ma ole seco VS AN  B2 0 6.2E-1 3.95E-4 0	0.005 0.005 0.132 0.132 0.132 0.132 0.132 0.132 0.132 0.132 0.132 ing renewable paterials; Indary full D WA	C3  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C3/1  0 0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 Total use nergy re Total use re ATEG  C3/1 0 0.0E+0 0.0E+0	C3/2  0.081 0 0.081 0.484 0 0.484 0 9.87E-6 1.03E-4 1.05E-1 ergy res of renevisources so of non r  ORIES  C3/2 0 1.09E-1 7.11E-5	C4  0.151 0 0.151 0 0.151 3.14 0 3.14 0 2.51E-3 5.99E-3 1.16E-1 ources uswable prisused as nenewable  C4 0 3.12E+0 5.75E-5 0	C4/1  0.299  0 0.299  0.299  6.64  0 6.64  0 1.81E-4 1.88E-3 3.16E-1 sed as r. mary en raw ma ble prime e second	0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mate ergy reseterials; F ary enerdary fuel	-0.679 0 -0.679 -4.08 0 -4.08 0 -8.33E-5 -8.72E-4 -8.83E-1 rials; PEources; FENRM = gy resous; FW =	-1.59 0 -1.59 -39.7 0 -39.7 0 -4.59E-4 -4.82E-3 -2.07E+0 RM = Us PENRE: = Use of in  D/1 0 -2.17E+0 -1.4E-3	-0.161 0 -0.161 -58.7 0 -58.7 0 -2.03E-5 -2.09E-4 -2.82E-1 se of = Use of non <i>M</i> = Use et fresh D/2 0 -4.59E+1 -9.66E-5
Parame PERI PERI PENI PENI PENI PENI SM RSF RSS FW  Caption  RESU 1 m² 1 Parame HWE NHW RWE CRU MFF	E	Unit A  [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ	A1 - A3  8.63  0  8.63  0  8.63  8.60  8.6	0.094 0 0.094 0 0.094 2.39 0 2.39 0 5.51E-5 5.58E-4 3.32E-3 1 enewable nergy reality r	A5 1.77 0 1.77 0 1.77 8.09 0 8.09 0.014 1.12E-4 1.17E-3 1.02E+0 e primary sources energy expources el Use of  JTPUT  A5 0.017 6.682E-1 1.63E-4 0 0.12	B1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	B2 0.5 0 0.5 0 0.5 0 6.55 0 6.55 0 2.03E-4 2.13E-3 2.13E-3 3.49E-1 7 excludir aw manon ren raw maole secon VS AN B2 0 6.2E-1 3.95E-4 0 0	0.005 0.005 0.132 0 0.132 0 0.132 0 8.37E-7 8.77E-6 5.17E-4 ing renewterials; I rewable paterials; I undary fu	C3  0 0 0 0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 0 0.0E+0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C3/1  0 0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 Total use nergy re C3/1 0 0.0E+0 0.0E+0 0.0E+0 0.0E+0	C3/2  0.081 0 0.081 0 0.484 0 0.484 0 0.87E-0 1.03E-1 ergy ress of renewsources see of nor of non r  C3/2 0 0 1.09E-1 7.11E-5 0 0	C4  0.151 0 0.151 3.14 0 3.14 0 2.51E-3 5.99E-3 1.16E-1 ources uswable prisused as n renewable  C4 0 3.12E+0 5.75E-5 0 0	C4/1  0.299  0 0.299  6.64  0 6.64  0 1.81E-4 1.88E-3 3.16E-1 sed as r. mary en raw ma ble prime e second  C4/1  0.547 7.5E-1 1.99E-4  0	0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mate ergy resterials; Parary ener dary fuel	-0.679 0 -0.679 -4.08 0 -4.08 0 -8.33E-5 -8.72E-4 -8.83E-1 rials; PEources; FENRM = gy resous; FW =	-1.59 0 -1.59 -39.7 0 -39.7 0 4.59E-4 -4.82E-3 -2.07E+0  PENRE: = Use of incres; SN Use of n  D/1 0 -2.17E+0 -1.4E-3 0 0	-0.161 0 -0.161 -58.7 0 -58.7 0 -2.03E-5 -2.09E-4 -2.82E-1 se of = Use of non M = Use tet fresh  D/2 0 4.59E+1 -9.66E-5 0
Parame PERI PENI PENI PENI PENI PENI PENI SM RSF FW  Captio	E	Unit A  [M.] [M.] [M.] [M.] [M.] [M.] [M.] [M.	A1 - A3  8.63  0  8.63  0  8.63  10  8.63  10  135  0.605  1.89E-2  1.89E-2  1.89E-2  1.89E-2  1.89E-2  1.89E-3	A4 0.094 0 0.094 0 0.094 0 2.39 0 2.39 0 51E-5 58E-4 1.32E-3 1 enewable tergy re rimary energy re ali; RSF =	A5 1.77 0 1.77 0 1.77 8.09 0 8.09 0.014 1.12E4 1.12E4 1.12E3 1.02E+0 e primary sources energy existences = Use of  JTPUT  A5 0.017 6882E-1 1.63E-4 0 0.12 0	STATE	B2 0.5 0 0.5 0.5 6.55 0 6.55 0 2.03E-4 2.13E-3 8.49E-1 7 exclud raw manon ren raw mable secon VS AN B2 0 6.2E-1 3.95E-4 0 0 0	0.005 0 0.005 0 0.005 0 0.132 0 0.132 0 8.37E-7 8.77E-6 5.17E-4 ing renewterials; Fewable paterials; Indary fu  D WA  C2 0 4.71E-4 1.84E-7 0 0 0	C3  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C3/1  0 0 0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 0 Total use nergy re  Total use r  ATEG  C3/1  0 0.0E+0 0 0.0E+0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C3/2  0.081 0 0.081 0.484 0 0.484 0 9.87E-6 1.03E-4 1.05E-1 ergy res of renevisources se of noi of non r  ORIES  C3/2 0 1.09E-1 7.11E-5 0 0	C4  0.151 0 0.151 3.14 0 3.14 0 2.51E-3 5.99E-3 1.16E-1 ources used as a renewal renewable  C4 0 3.12E+0 5.75E-5 0 0 0	C4/1  0.299 0 0.299 6.64 0 6.64 0 1.81E-4 1.88E-3 3.16E-1 sed as r. mary en raw ma ble prime e second  C4/1  0.547 7.5E-1 1.99E-4 0 0	0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mate ergy resterials; F ary enerdary fuel	-0.679 0 -0.679 -4.08 0 -4.08 0 -8.33E-5 -8.72E-4 -8.83E-1 rials; PEources; FENRM = gy resous; FW =	-1.59 0 -1.59 -39.7 0 -39.7 0 -39.7 0 -39.7 0 -4.59E-4 -4.82E-3 -2.07E+0 RM = Us PENRE : = Use of Inuces; SN Use of n	-0.161 0 -0.161 -58.7 0 -58.7 0 -2.03E-5 -2.09E-4 -2.82E-1 se of = Use of non M = Use tresh  D/2 0 4.59E+1 -9.66E-5 0 0
Parame PERI PENI PENI PENI PENI PENI SM RSF NRS FW  Caption  Caption  HWI NHW RWI CRI REF MEF	E	Unit A  [M.] [M.] [M.] [M.] [M.] [M.] [M.] [M.	A1 - A3  8.63  0  8.63  0  8.63  8.60  8.6	0.094 0 0.094 0 0.094 2.39 0 2.39 0 5.51E-5 5.58E-4 3.32E-3 1 enewable nergy reality r	A5 1.77 0 1.77 0 1.77 8.09 0 8.09 0.014 1.12E-4 1.17E-3 1.02E+0 e primary sources energy expources el Use of  JTPUT  A5 0.017 6.682E-1 1.63E-4 0 0.12	B1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	B2 0.5 0 0.5 0 0.5 0 6.55 0 6.55 0 2.03E-4 2.13E-3 2.13E-3 3.49E-1 7 excludir aw manon ren raw maole secon VS AN B2 0 6.2E-1 3.95E-4 0 0	0.005 0.005 0.132 0 0.132 0 0.132 0 8.37E-7 8.77E-6 5.17E-4 ing renewterials; I rewable paterials; I undary fu	C3  0 0 0 0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 0 0.0E+0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C3/1  0 0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 Total use nergy re C3/1 0 0.0E+0 0.0E+0 0.0E+0 0.0E+0	C3/2  0.081 0 0.081 0 0.484 0 0.484 0 0.87E-0 1.03E-1 ergy ress of renewsources see of nor of non r  C3/2 0 0 1.09E-1 7.11E-5 0 0	C4  0.151 0 0.151 3.14 0 3.14 0 2.51E-3 5.99E-3 1.16E-1 ources uswable prisused as n renewable  C4 0 3.12E+0 5.75E-5 0 0	C4/1  0.299  0 0.299  6.64  0 6.64  0 1.81E-4 1.88E-3 3.16E-1 sed as r. mary en raw ma ble prime e second  C4/1  0.547 7.5E-1 1.99E-4  0	0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mate ergy resterials; Parary ener dary fuel	-0.679 0 -0.679 -4.08 0 -4.08 0 -8.33E-5 -8.72E-4 -8.83E-1 rials; PEources; FENRM = gy resous; FW =	-1.59 0 -1.59 -39.7 0 -39.7 0 4.59E-4 -4.82E-3 -2.07E+0  PENRE: = Use of incres; SN Use of n  D/1 0 -2.17E+0 -1.4E-3 0 0	-0.161 0 -0.161 -58.7 0 -58.7 0 -2.03E-5 -2.09E-4 -2.82E-1 se of = Use of non M = Use tet fresh  D/2 0 4.59E+1 -9.66E-5 0
Parame PERI PENI PENI PENI PENI PENI PENI SM RSF FW  Captio	E	Unit A  [M.] [M.] [M.] [M.] [M.] [M.] [M.] [M.	A1 - A3  8.63 0 8.63 0 8.63 81.41 553.59 135 0.605 1.8E-3 1.89E-2 1.89E-2 1.89E-2 1.89E-2 1.89E-3 0.009 0.009 0.0057 0 0 0	A4 0.094 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0.094 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SOUR  A5  1.77  0  1.77  8.09  0  8.09  0.014  1.12E-4  1.17E-3  1.02E+0  1.02E+0  1.07E-0  1.07E-0  1.07E-0  1.017  1.682E-1  0  0  0.11  0  0.11  0 0.11  0 0.11  0 0.11	B1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	B2 0.5 0 0.5 6.55 0 6.55 0 2.03E-4 2.13E-3 8.49E-1 raw manon ren raw manole secon VS AN  B2 0 6.2E-1 3.95E-4 0 0 0 0 0	0.005 0.005 0.005 0.132	C3  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	C3/1  0 0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 0 0 Total use nergy re Total use	C3/2  0.081 0 0.081 0.484 0 0.484 0 9.87E-6 1.03E-1 ergy res of renee sources se of nor ORIES  C3/2 0 1.09E-1 7.11E-5 0 0 0	C4  0.151 0 0.151 3.14 0 3.14 0 2.51E-3 5.99E-3 1.16E-1 ources used as a renewable pricused as a renewable of the control of t	C4/1  0.299 0 0.299 6.64 0 6.64 0 1.81E-4 1.88E-3 3.16E-1 sed as r. mary en raw ma ble prime e second  C4/1  0.547 7.5E-1 1.99E-4 0 0 3.67 25.1	0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mate ergy resterials; F ary enerdary fuel	-0.679 0 -0.679 -4.08 0 -4.08 0 -8.33E-5 -8.72E-4 -8.83E-1 rials; PE purces; I purces;	-1.59 0 -1.59 -39.7 0 -39.7 0 -4.59E-4 -4.82E-3 -2.07E+0 RM = Us PENRE: = Use of n  D/1 0 -2.17E+0 -1.4E-3 0 0 0	-0.161 -0.161 -0.161 -58.7 0 -58.7 0 -2.03E-5 -2.09E-4 -2.82E-1 se of = Use of non M = Use et fresh  D/2 0 -4.59E+1 -9.66E-5 0 0 0

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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#### VDZ e.V.

Umweltdaten der deutschen Zementindustrie 2010

Institut Bauen und Umwelt e.V.	Publisher Institut Bauen und Umwelt e.V. Rheinufer 108 53639 Königswinter Germany	Tel Fax Mail Web	info@bau-umwelt.com
Institut Bauen und Umwelt e.V.	Programme holder Institut Bauen und Umwelt e.V. Rheinufer 108 53639 Königswinter Germany	Tel Fax Mail Web	info@bau-umwelt.com
GUT ON ALT WALLE	Author of the Life Cycle Assessment Gemeinschaft umweltfreundlicher Teppichboden (GUT) e.V. Schönebergstraße 2 52068 Aachen Germany	Tel Fax Mail Web	mail@gut-ev.de
DESSO The Floor is Yours	Owner of the Declaration Desso BV Taxandriaweg 15 5142 PA Waalwijk Netherlands	Tel Fax Mail Web	info@desso.com