ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804

Owner of the Declaration Balsa

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

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

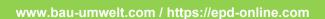
Declaration number EPD-BAL-20130011-CCA1-EN

Issue date 09/07/2013 Valid to 08/07/2018

Easy Living Spirit: SERENITE

Tufted saxony frise carpet with recycled pile material

BALSAN











General Information

BALSAN

Programme holder

IBU - Institut Bauen und Umwelt e.V. Rheinufer 108 D-53639 Königswinter

Declaration number

EPD-BAL-20130011-CCA1-EN

This Declaration is based on the Product Category Rules:

Floor coverings, 07-2012

(PCR tested and approved by the independent expert committee)

Mennanes

Issue date

09/07/2013

Valid to

08/07/2018

Prof. Dr.-Ing. Horst J. Bossenmayer (President of Institut Bauen und Umwelt e.V.)

Prof. Dr.-Ing. Hans-Wolf Reinhardt

(Chairman of SVA)

Easy Living Spirit: SERENITE Tufted saxony frise carpet with recycled pile material

Owner of the Declaration

Balsan 2 Corbilly 36330 Arthon France

Declared product / Declared unit

SERENITE - tufted saxony frise carpet with recycled pile material and textile backing - 1 m²

Scope

The declaration applies for the tufted saxony frise carpet "SERENITE" produced in the Balsan manufacturing site Arthon, France.

It is only valid in conjunction with a valid PRODIS license.

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.

Verification

The CEN Norm EN 15804 serves as the core PCR Independent verification of the declaration and data according to ISO 14025

internal

externally

Edrole

Dr. Eva Schmincke (Independent tester appointed by SVA)

Product

Product description

Tufted saxony frise carpet with solution dyed polyamide 6 fibres (100 % recycled content), a polypropylene primary backing and a woven polypropylene backing.

The recycled content (post and pre-consumer) out of total weight account for 52,1 %.

According to EN 1307 the carpet fulfills the requirements for luxury class LC4.

Application

SERENITE carpet has been assigned use class 33 according to EN 1307 and can be installed in all domestic and commercial area with intensive use. It deemed suitable for the continuous use of castor chairs.

Technical Data

Constructional data

according to EN 1307

Name	Value	Unit
Product Form	Carpet on roll	-
Type of manufacture	Tufted, cut pile	-
Yarn type	PA6, 100% recycled	-
Secondary backing	Woven textile backing	-
Total carpet weight	2110	g/m²
Surface pile weight	890	g/m²
Total thickness	8.5	mm
Surface pile thickness	6.1	mm
Number of tufts	1896	1/dm²

Additional product properties according to EN 1307 can be found on the "Product Information System (PRODIS)", www.pro-dis.info.

PRODIS registration number: CA0096EE



Base materials / Ancillary materials

Name	Value	Unit
Polyamide 6	52,1	%
Polypropylene	8,0	%
Limestone	28,9	%
SBR-latex	10,6	%
Additives	0,4	%

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

Name	Value	Unit
Declared unit	1	m ²
Conversion factor to 1 kg	0.47	-
Mass reference	2,11	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)

Transport to the construction site (,,,,	
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	248	kg/m³

Installation in the building (A5)

Name	Value	Unit
Auxiliary (adhesive)	0.4	kg
Material loss	0.19	kg

Cardboard waste (packaging material) leaves the system for recycling. PE-foil (packaging material) and installation waste is considered to be incinerated in a municipal waste incineration plant.

Maintenance (B2)

Indication per m² 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	m ³
Cleaning agent (wet cleaning)	0,06	kg
Electricity consumption	0.314	kWh

Further information on cleaning and maintenance see www.balsan.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	2.11	kg
(scenario 0 and 1)		
Collected separately (scenario 2)	2.11	kg
Landfilling (scenario 0)	2.11	kg
Energy recovery (scenario 1)	2.11	kg
Energy recovery (scenario 2)	1,49	kg
Recycling (scenario 2)	0.62	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 life 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	CRIPT	ION C	F THE	SYS	ТЕМ В	OUND	ARY	X = IN	CLUD	ED IN	LCA:	MND =	MOD	ULE N	OT DE	CLAR	(ED)	
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Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement ¹⁾	Refurbishment ¹⁾	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse- Recovery-	Recycling- potential	
A 1	A2	А3	A4	A5	B1	B2	В3	B4	B5	В6	B7	C1	C2	СЗ	C4	[)	
Х	Х	Х	Х	Х	Х	Х	MND	MND	MND	MND	MND	MND	Х	Х	Х)	Κ	
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Param eter	U	Init	A1-A3	A4	A5	B1	B2	C2	СЗ	C3/1	C3/2	C4	C4/1	C4/2	D	D/1	D/2	
GWP ODP		O ₂ -Eq.] C11-Eq.]	9.47 6.35E-8	0.09 1.60E-	1.45 3.43E-8	0.00 3 0.00E+0	0.29 6.45E-9	0.00 8.60E-	0.00 0.00E+0	0.00 0.00E+0	0.01 1.30E-	4.71 5.70E- 11	3.98 3.40E- 10	0.00 0.00E+0	-0.12 -1.10E- 10	-1.23 -2.50E- 10	-0.31 -7.95E-8	
AP EP POCP	[kg (PC	O ₂ -Eq.] O ₄) ³ Eq.] nen Eg.]	3.18E-2 6.42E-3 2.72E-3	9.43E-	5 1.20E-3	0.00E+0 0.00E+0 1 1.11E-4	1.99E-4	1 5.19E-6	0.00E+0	0.00E+0	3.52E-6	2.71E-3	6.89E-4	0.00E+0	-2.97E-5	-2.00E-3 -1.66E-4	-4.46E-4	
ADPE	[kg S	Sb Eq.]		3.33E-9		5 0.00E+0		1 000				2.19E-8						
ADPF	[]	۸J]	170.00	1.24	21.80	0.00	6.55	0.07	0.00	0.00	0.25	1.61	3.42	0.00	-2.10	-20.40	-52.50	
Captio					P = Forr	nation pot	tential of	tropospl	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									
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RESU	JLTS	OF TH	IE LC	4 - RE	SOUR	CE US	E: 1 r	n² floo			erillar ioi	103311103						
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Param PER	eter E	Unit /	A1-A3 10.80	A4 0.05	A5 3.26	B1 0.00	B2 0.50	C2	C3 0.00	C3/1	C3/2 0.04	C4 0.08	C4/1 0.15	0.00	-0.35	-0.82	-0.13	
Param PER PER	eter E M	Unit /	10.80 0.00 10.80	0.05 0.00 0.05	3.26 0.00 3.26	0.00 0.00 0.00	0.50 0.00 0.50	0.00 0.00 0.00	C3 0.00 0.00 0.00	C3/1 0.00 0.00 0.00	C3/2 0.04 0.00 0.04	C4 0.08 0.00 0.08	C4/1 0.15 0.00 0.15	0.00 0.00 0.00	-0.35 0.00 -0.35	-0.82 0.00 -0.82	-0.13 0.00 -0.13	
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Param PER PER PENI PENI PENI RSI NRS	E M T RE RM RT Frene	Unit [M.] [M.] [M.] [M.] [M.] [M.] [M.] [M.] 2 [m.] 2	A1-A3 10.80 0.00 10.80 121.80 48.20 170.00 1.06 1.66E-2 8 7.73E+1 4 Use of receivable perimary elements	0.05 0.00 0.05 1.24 0.00 1.24 0.00 7.83E-6 3.20E-5 1.84E-3 1.84E-3 1.84E-3 1.84E-3	3.26 0.00 3.26 0.00 3.26 0.00 21.80 0.08 3.22E-4 3.37E-3 0.232E+0 le primar essources energy e	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 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 excludiraw manon ren	0.00 0.00 0.00 0.07 0.00 0.07 0.00 4.31E-7 4.51E-6 2.66E-4 Ing renew	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	C3/1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 mary en otal use energy re Total us F = Use	0.04 0.00 0.04 0.25 0.00 0.25 0.00 5.08E-6 5.32E-5 5.39E-2 ergy res	C4 0.08 0.00 0.08 1.61 0.00 1.61 0.00 1.29E-3 3.08E-3 5.97E-2 ources u wable pri used as	0.15 0.00 0.15 3.42 0.00 3.42 0.00 9.33E-5 9.69E-4 1.63E-1 sed as r mary en raw ma ble prim	0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 0.00E+0 aw mate ergy resc terials; P	-0.35 0.00 -0.35 -2.10 0.00 -2.10 0.00 -4.28E-5 -4.49E-4 -4.55E-1 rials; PE ources; PE ENRM =	-0.82 0.00 -0.82 -20.40 0.00 -20.40 0.00 -2.36E-4 -2.48E-3 -1.06E+0 RM = Us PENRE: = Use of urces; SM	-0.13 -0.00 -0.13 -52.50 0.00 -52.50 0.00 -1.70E-5 -1.78E-4 -2.44E-1 se of = Use of non M = Use	
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Param PER PER PENF PENF PENF SM RSI NRS FW Captio	E M ST	Unit [M.] [M.]	A1-A3 10.80 0.00 10.80 10.80 10.80 10.80 121.80 48.20 170.00 1.06 1.568-3 7.688-2 1.73E+1 2.888-3 2.888-3 2.888-3 2.888-3 3.888-3 4.888-3	0.05 0.00 0.05 1.24 0.00 1.24 0.00 1.24 0.00 1.326-6 3.20E-5 1.84E-3 1.8	3.26 0.00 3.26 21.80 0.00 21.80 0.08 3.22E-4 3.37E-3 2.32E+0 le primai sources energy e esources = Use of	B1	0.50 0.00 0.50 0.50 0.50 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 excludiraw manon ren raw manon ren raw manole seco	0.00 0.00 0.00 0.07 0.00 0.07 0.00 4.31E-7 4.51E-6 2.66E-4 Ing renew terials; F ewable paterials; Indary fu	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	C3/1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	0.04 0.00 0.04 0.25 0.00 0.25 0.00 5.08E-6 5.32E-5 5.39E-2 espy res of renee	0.08 0.00 0.08 1.61 0.00 1.61 0.00 1.29E-3 3.08E-3 5.97E-2 ources u wable pri used as	0.15 0.00 0.15 3.42 0.00 3.42 0.00 9.33E-5 9.69E-4 1.63E-1 sed as r mary en raw ma ble prime	0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 0.00E+0 aw mate ergy resiterials; Pary enerdary fuel	-0.35 -0.00 -0.35 -2.10 0.00 -2.10 0.00 -4.28E-5 -4.49E-4 -4.55E-1 rials; PE ources; FENRM = gy resous; FW =	-0.82 -0.00 -0.82 -20.40 0.00 -2.36E-4 -2.48E-3 -1.06E+0 RM = Use of urces; SN Use of n	-0.13 -0.00 -0.13 -52.50 0.00 -52.50 0.00 -1.70E-5 -1.78E-4 -2.44E-1 se of = Use of non M = Use et fresh	
Param PER PER PENF PENF PENF SM RSI NRS FW Captio	E M TT RE RM RT Prene of se	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] 2 [MJ] 2 [m] 1 PERE = wable p non rene wable p econdary OF Theoveri	A1-A3 10.80 0.00 10.80 10.80 0.00 121.80 48.20 170.00 1.06 2.56E-3 7 6.88E-2 8 7.73E+1 4 Use of remary elewable perimary elewable perimary elewable porting a perimary elewable per	0.05 0.00 0.00 0.05 1.24 0.00 1.25 0.00 0.00	A5 3.26 0.00 3.26 21.80 0.00 21.80 0.08 3.22E-4 3.37E-3 2.32E-40 de primar esources energy e esources = Use of	B1	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 excludiraw manon ren raw mable seco	0.00 0.00 0.00 0.07 0.00 0.07 0.00 4.31E-7 4.51E-6 2.66E-4 ng renev terials; I exterials; I ndary fu	C3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	C3/1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	C3/2 0.04 0.00 0.04 0.25 0.00 0.25 0.00 5.08E-6 5.32E-5 5.39E-2 ergy res so f renevesources se of non r	C4 0.08 0.00 0.08 1.61 0.00 1.61 0.00 1.29E-3 3.08E-3 5.97E-2 ources u wable pri used as n renewa enewable	0.15 0.00 0.15 3.42 0.00 3.42 0.00 9.33E-5 9.69E-4 1.63E-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	-0.35 -0.00 -0.35 -2.10 0.00 -2.10 0.00 -4.28E-5 -4.49E-4 -4.55E-1 rials; PE ources; I ENRM = gy resou s; FW =	-0.82 -0.00 -0.82 -20.40 0.00 -20.40 0.00 -2.36E-4 -2.48E-3 -1.06E+0 RM = Us PENRE : - Use of nuces; SN Use of n	-0.13 -0.00 -0.13 -52.50 0.00 -52.50 0.00 -1.70E-5 -1.78E-4 -2.44E-1 se of = Use of non M = Use et fresh	
Param PER PER PENF PENF PENF SM RSI NRS FW Captio	E M ST	Unit [M] [M] [M] [M] [M] [M] [M] [M	A1-A3 10.80 0.00 10.80 0.00 110.80 121.80 48.20 170.00 1.06 1.56E-3 7 1.68E-2 8 1.73E+11 Use of remany elewable perimary elew	0.05 0.00 0.00 0.05 1.24 0.00 0.00	3.26 0.00 3.26 21.80 0.00 21.80 0.08 3.22E-4 (3.33) 3.37E-3 (2.32E+0) (4.32) de primaria sources energy e esources energy e esources (4.32) 4.32 (4.32) 4.33 (4.32) 4.34 (4.32) 4.35 (4.32) 4.35 (4.32) 4.36 (4.32) 4.37 (4.32)	B1	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 excludir aw manon ren raw manon ren raw manole seco	0.00 0.00 0.00 0.00 0.07 0.00 0.07 0.00 4.31E-7 4.51E-6 2.66E-4 ng renew terials; I ewable paterials; I ndary fu	C3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	C3/1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	C3/2 0.04 0.00 0.04 0.25 0.00 0.25 0.00 5.08E-6 5.32E-5 5.39E-2 ergy res of reneves of reneves of reneves of reneves control of non reconstruction of non	0.08 0.00 0.08 1.61 0.00 1.61 0.00 1.29E-3 3.08E-3 5.97E-2 ources u wable pri used as n renewa enewable	C4/1 0.15 0.00 0.15 3.42 0.00 3.42 0.00 9.33E-5 9.69E-4 1.63E-1 sed as r mary en raw ma ble prim e second	0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 0.00E+0 aw mate ergy resiterials; Plary ener dary fuel	-0.35 -0.00 -0.35 -2.10 0.00 -2.10 0.00 -4.28E-5 -4.49E-4 -4.55E-1 rials; PE ources; I PENRM = gy resou s; FW =	-0.82 0.00 -0.82 -20.40 0.00 -20.40 0.00 -2.36E-4 -2.48E-3 -1.06E+0 RM = Us PENRE : Use of n Use of n	-0.13 -0.00 -0.13 -52.50 0.00 -52.50 0.00 -1.70E-5 -1.78E-4 -2.44E-1 se of = Use of non M = Use eet fresh	
Param PER PER PENF PENF SM RSS NRS FW Captio	E M ST	Unit [M.] [Kg] [M.] 2 [M.] [M.]	A1-A3 10.80 0.00 10.80 0.00 110.80 121.80 48.20 170.00 1.06 1.56E-3 7.3E+1 48.20 170.00 1.06	0.05 0.00 0.05 1.24 0.00 0.00 1.24 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	3.26 0.00 3.26 0.00 3.21.80 0.00 21.80 0.08 3.22E-4 3.37E-3 2.32E+0 lie primar esources energy e esources = Use of	B1	B2 0.50 0.00 0.50 0.50 0.50 0.50 0.50 0.00 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 excludi raw manon ren raw manole seco VS AN B2 0.00 3.20E-1 3.95E-4	0.00 0.00 0.00 0.00 0.07 0.00 0.07 0.00 4.31E-7 4.51E-6 2.66E-4 Indary fu C2 0.00 2.43E-4 9.48E-8	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	C3/1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	C3/2 0.04 0.00 0.04 0.25 0.00 0.25 0.00 5.08E-6 5.39E-2 ergy res of renew seconces se of nor of non r	C4 0.08 0.00 0.08 1.61 0.00 1.61 0.00 1.29E-3 3.08E-3 5.97E-2 ownces u wable pri used as an renewa enewable C4 0.00 1.61E+0 2.96E-5	C4/1 0.15 0.00 0.15 3.42 0.00 3.42 0.00 9.33E-5 9.69E-4 1.63E-1 sed as r mary en raw mar yen raw mar yen raw mary en raw mary e	0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 aw mate ergy resiterials; Piary ener dary fuel	-0.35 0.00 -0.35 -2.10 0.00 -2.10 0.00 -4.28E-5 -4.49E-4 -4.55E-1 rials; PE ources; F ENRM = gy reso. s; FW =	-0.82 0.00 -0.82 -20.40 0.00 -2.36E-4 -2.48E-3 -1.06E+0 RM = Us PENRE: = Use of nr D/1 0.00 -1.12E+0 -7.21E-4	-0.13 0.00 -0.13 -52.50 0.00 -52.50 0.00 -1.70E-5 -1.78E-4 -2.44E-1 se of = Use of non M = Use let fresh 	
Param PER PER PENF PENF PENF SM RSF NRSS FW Captio	E MM TT RE RM RT Prene of set P	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] 22 [MJ] 22 [m] 12 PERE = wable perondari OF The coveri Unit [kg] [kg] [kg]	A1-A3 10.80 0.00 10.80 121.80 48.20 170.00 1.06 1.06 1.06 1.06 1.06 1.06 1.06	0.05 0.00 0.05 1.24 0.00 0.00 1.24 0.00 0.00 0.00	3.26 0.00 3.26 21.80 0.00 21.80 0.08 3.37E-3 2.32E+0 le primar sources energy e esources = Use of JTPUT A5 0.03 1.23E+0 0.00 1.23E+0 0.00 0.00 1.23E+0 0.00 0.00 1.23E+0 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	B1	B2 0.50 0.00 0.50 6.55 0.00 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 excludiraw manon ren raw male seco VS AN B2 0.00 3.20E-1 3.95E-4 0.00	0.00 0.00 0.00 0.07 0.00 0.07 0.00 0.07 4.31E-7 4.51E-6 2.66E-4 Ing renevaterials; Fewable paterials; Indary fu C2 0.00 2.43E-4 9.48E-8 0.00	C3 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 PERT = Torimary e PERT = Torimary e PERT = Torimary e PERT = Torimary e C3 0.00	C3/1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 Total use F = Use T ATEG C3/1 0.00 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0	C3/2 0.04 0.00 0.04 0.25 0.00 0.25 0.00 5.08E-6 5.32E-5 5.39E-2 ergy res of renews se of nor of non r C3/2 0.00 5.63E-2 3.66E-5 0.00	C4 0.08 0.00 0.08 1.61 0.00 1.61- 0.00 1.29E-3 3.08E-3 5.97E-2 ources u wable pri used as n renewa enewable C4 0.00 1.61E+0 2.96E-5 0.00	C4/1 0.15 0.00 0.15 3.42 0.00 3.42 0.00 9.33E-5 9.69E-4 1.63E-1 sed as r mary en raw ma ble prime e second C4/1 0.28 3.86E-1 1.02E-4 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 aw mate ergy resterials; Parary ener dary fuel	-0.35 -0.00 -0.35 -2.10 -0.00 -2.10 -0.00 -4.28E-5 -4.49E-4 -4.55E-1 rials; PEources; § ENRM = gy resous; FW =	-0.82 0.00 -0.82 -20.40 0.00 -20.40 0.00 -2.36E-4 -2.48E-3 -1.06E+0 RM = Us PENRE: = Use of in D/1 0.00 -1.12E+0 -7.21E-4 0.00	-0.13 0.00 -0.13 -52.50 0.00 -52.50 0.00 -1.70E-5 -1.78E-4 -2.44E-1 se of = Use of non M = Use et fresh	
Param PER PER PENF PENF SM RSS NRS FW Captio	E MM TT RE RM RT I Frene of set	Unit [M.] [Kg] [M.] 2 [M.] [M.]	A1-A3 10.80 0.00 10.80 0.00 110.80 121.80 48.20 170.00 1.06 1.56E-3 7.3E+1 48.20 170.00 1.06	0.05 0.00 0.05 1.24 0.00 0.00 1.24 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	3.26 0.00 3.26 0.00 3.21.80 0.00 21.80 0.08 3.22E-4 3.37E-3 2.32E+0 lie primar esources energy e esources = Use of	B1	B2 0.50 0.00 0.50 0.50 0.50 0.50 0.50 0.00 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 excludi raw manon ren raw manole seco VS AN B2 0.00 3.20E-1 3.95E-4	0.00 0.00 0.00 0.00 0.07 0.00 0.07 0.00 4.31E-7 4.51E-6 2.66E-4 Indary fu C2 0.00 2.43E-4 9.48E-8	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	C3/1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	C3/2 0.04 0.00 0.04 0.25 0.00 0.25 0.00 5.08E-6 5.39E-2 ergy res of renew seconces se of nor of non r	C4 0.08 0.00 0.08 1.61 0.00 1.61 0.00 1.29E-3 3.08E-3 5.97E-2 ownces u wable pri used as an renewa enewable C4 0.00 1.61E+0 2.96E-5	C4/1 0.15 0.00 0.15 3.42 0.00 3.42 0.00 9.33E-5 9.69E-4 1.63E-1 sed as r mary en raw mar yen raw mar yen raw mary en raw mary e	0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 aw mate ergy resiterials; Piary ener dary fuel	-0.35 0.00 -0.35 -2.10 0.00 -2.10 0.00 -4.28E-5 -4.49E-4 -4.55E-1 rials; PE ources; F ENRM = gy reso. s; FW =	-0.82 0.00 -0.82 -20.40 0.00 -2.36E-4 -2.48E-3 -1.06E+0 RM = Us PENRE: = Use of nr D/1 0.00 -1.12E+0 -7.21E-4	-0.13 0.00 -0.13 -52.50 0.00 -52.50 0.00 -1.70E-5 -1.78E-4 -2.44E-1 se of = Use of non M = Use let fresh 	
Param PER PER PENF PENF PENF SM RSi NRS FW Captio	eter E M IT RE RM RT I Frene of se JLTS floore eter D JJ R R R R R R R R R R R R R R R R R	Unit [M] [M] [M] [M] [M] [M] [M] [M	A1-A3 10.80 0.00 10.80 0.00 110.80 121.80 48.20 170.00 1.06 1.56E-3 7 1.68E-2 8 7.73E+11 Use of remany elewable perimary elew	A4 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.0	A5 3.26 0.00 3.26 0.00 21.80 0.08 3.22E-4 3.37E-3 2.32E+0 le primari sources energy e esources = Use of USE OF TRANSPORTER OF TRANSPOR	B1	B2 0.50 0.00 0.50 0.00 0.50 0.00 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 r excludir aw ma non ren raw ma ble seco VS AN B2 0.00 5.20E-1 3.95E-4 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.07 0.00 0.07 0.00 4.31E-7 4.51E-6 2.66E-4 ng renevterials; Fewable paterials; Indary fu D WA C2 0.00 2.43E-4 9.48E-8 0.00 0.00 0.00	C3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	C3/1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	C3/2 0.04 0.00 0.04 0.25 0.00 0.25 0.00 5.08E-6 5.39E-2 ergy res of reneves of reneves of reneves of reneves of reneves of ron of non relationship of the resources of reneves of reneves of reneves of reneves of reneves of ron of non relationship of ron relationship of relation	C4 0.08 0.00 0.08 1.61 0.00 1.61 0.00 1.29E-3 3.08E-3 5.97E-2 ources u wable pri used as a renewable	C4/1 0.15 0.00 0.15 3.42 0.00 3.42 0.00 9.33E-5 9.69E-4 1.63E-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	-0.35 -0.00 -0.35 -2.10 -0.00 -2.10 -0.00 -2.11 -0.00 -4.28E-5 -4.49E-4 -4.55E-1 -rials; PE ources; I -ENRM = gy resou s; FW =	-0.82 -0.00 -0.82 -20.40 -0.00 -20.40 -2.36E-4 -2.48E-3 -1.06E+0 RM = Us PENRE : -Use of n D/1 -0.00 -1.12E+0 -7.21E-4 -0.00 -0.00 -0.00	-0.13 -0.00 -0.13 -52.50 -0.00 -52.50 -0.00 -1.70E-5 -1.78E-4 -2.44E-1 se of = Use of non	
Param PER PER PENF PENF PENF SM RSI NRS FW Captio	eter E M M T RE RM RT I Frene of se JLTS floore eter D JJ R R R F F F F F F F F F F F F F F F	Unit [M] [M] [M] [M] [M] [M] [M] [M	A1-A3 10.80 0.00 10.80 0.00 110.80 121.80 48.20 170.00 1.06 1.56E-3 7 1.68E-2 8 1.73E+11 Use of remary elewable perimary elew	A4 0.05 0.00 0.00 0.00 0.00 0.00 0.00 0.0	A5 3.26 0.00 3.26 0.00 21.80 0.08 3.22E4 0 3.37E-3 0 2.32E+0 0 be primari sources energy e esources = Use of USE of 0.03 1.23E+0 0 7.17E-4 0 0.00 0.08 0.00 0.23 1.33	B1	B2 0.50 0.00 0.50 0.00 0.50 0.00 6.55 0.00 2.03E-4 2.13E-3 3.49E-1 r excludir aw manon ren raw manole seco VS AN B2 0.00 5.20E-1 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.07 0.00 0.07 0.00 4.31E-7 4.51E-6 2.66E-4 ng renever terials; Fewable paterials; Indary fu D WA C2 0.00 2.43E-4 9.48E-8 0.00 0.00 0.00 0.00	C3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	C3/1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	C3/2 0.04 0.00 0.04 0.25 0.00 0.25 0.00 5.08E-6 5.39E-5 5.39E-2 ergy res of reneves of	C4 0.08 0.00 0.08 1.61 0.00 1.61 0.00 1.29E-3 3.08E-3 5.97E-2 00urces u wable pri used as a renewable	C4/1 0.15 0.00 0.15 3.42 0.00 3.42 0.00 9.33E-5 9.69E-4 1.63E-1 sed as r mary en raw ma ble prim e second C4/1 0.28 3.86E-1 1.02E-4 0.00 0.00 1.89 12.90	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	-0.35 -0.00 -0.35 -2.10 -0.00 -2.10 -0.00 -2.11 -0.00 -4.28E-5 -4.49E-4 -4.55E-1	-0.82 -0.00 -0.82 -20.40 -0.00 -20.40 -2.36E-4 -2.48E-3 -1.06E+0 RM = Us PENRE : -Use of n D/1 -7.21E-4 -7.21E-4 -0.00 -0.00 -0.00 -0.00	-0.13 -0.00 -0.13 -52.50 -0.00 -52.50 -0.00 -1.70E-5 -1.78E-4 -2.44E-1 se of = Use of non	

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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