# **ENVIRONMENTAL PRODUCT DECLARATION**

as per ISO 14025 and EN 15804

Owner of the Declaration Balsan

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

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

Declaration number EPD-BAL-20130250-CCA1-EN

Issue date 10.03.2014

Valid to 09.03.201

# **BOGOLAN ROLL**

Tufted carpet with recycled content

# **BALSAN**



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





# **General Information**

## Balsan

## Programme holder

IBU - Institut Bauen und Umwelt e.V. Panoramastr. 1

D-10178 Berlin

# **Declaration number**

EPD-BAL-20130250-CCA1-EN

# This Declaration is based on the Product **Category Rules:**

Floor coverings, 07-2012

(PCR tested and approved by the independent expert committee)

#### Issue date

10.03.2014

#### Valid to

09.03.2019

Wermanes

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

Dr. Burkhart Lehmann (Chairman of SVA)

# **BOGOLAN ROLL**

Tufted carpet with recycled content

### Owner of the Declaration

Ralsan

2 Corbilly

36330 Arthon

France

#### Declared product / Declared unit

BOGOLAN ROLL - 1 m<sup>2</sup> tufted carpet with recycled content.

#### Scope:

The declaration applies for the tufted carpet "BOGOLAN ROLL", produced in the Balsan manufacturing site Arthon, France.

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

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

internally

externally x



Dr. Eva Schmincke

(Independent tester appointed by SVA)

# **Product**

# **Product description**

Tufted loop pile carpet with solution dyed polyamide 6 fibres (76 % recycled content), a polypropylene primary backing and a woven polypropylene backing. The recycled content (post- and pre-consumer) out of total weight account for 26,4 %.

According to EN 1307 the carpet tiles fulfill the requirements for luxury class LC1.



### **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**

according to EN 1307

according to ETT 1007			
Name	Value	Unit	
Product Form	Broadloom	-	
Type of manufacture	Tufted, loop pile	-	
Varn tuna	Polyamide 6		
Yarn type	76 % recycled content	-	
Secondary backing	Woven textile backing	-	
Total carpet weight	1960	g/m <sup>2</sup>	
Surface pile weight	380	g/m²	
Total thickness	5.2	mm	
Surface pile thickness	2.5	mm	
Number of loops	1659	1/dm <sup>2</sup>	

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

PRODIS registration number: 7EFEDB2B



#### Base materials / Ancillary materials

Name	Value	Unit
Polyamide 6	34,7	%
Polypropylene	7,5	%
Limestone	42,0	%
SBR-latex	15,2	%
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**

Name	Value	Unit
Declared unit	1	m <sup>2</sup>
Conversion factor to 1 kg	0.51	-
Mass reference	1,96	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 packaging and 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 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 with the assumed service life 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	I/100km
Transport distance	700	km
Capacity utilisation (including empty runs)	85	%
Gross density of products transported	377	kg/m³

Installation in the building (A5)

Name	Value	Unit
Auxiliary (adhesive)	0.4	kg
Material loss	0.18	kg

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

Maintenance (B2)

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 <sup>3</sup>
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	1.96	kg
(scenario 0 and 1)	1.50	l Kg
Collected separately (scenario 2)	1.96	kg
Landfilling (scenario 0)	1.96	kg
Energy recovery (scenario 1)	1.96	kg
Energy recovery (scenario 2)	1,13	kg
Recycling (scenario 2)	0.83	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. /VDZ e.V./



# 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.

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Paramet PERE PERM PERTI PENRE PENRI PENRI SM RSF NRSF FW  Caption  RESUI 1 m² fl	Prenew of see	Unit A MJ ERRE = wable p non rene wable p condary OF Theoveri	7.6 0 7.6 0.4.531 38.469 143 0.536 2.04E-3 7.2.13E-2 7.2	A4  0.045 0 0.045 0 1.15 0 1.15 0 1.15 0 7.29E-6 7.64E-5 1.51E-3 1enewabl nergy re orimary e orimary e orimary re A — OL	A5 2.99 0 2.99 19.3 0 19.3 0.04 2.77E-4 2.78E-3 1.87E+0 e primar sources energy e sources = Use of	B1 0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 used as xcluding s used as r enewal	0.5 0.5 0.5 6.55 0 6.55 0 2.03E-4 2.13E-3 8.49E-1 7 exclud raw ma non rer s raw ma ble seco	m² floo  C2  0.002 0 0.002 0.003 0 0.063 0 4.0E-7 4.19E-6 terials; Fewable paterials; ondary fu	C3	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 T Total use T C3/1	C3/2  0.039 0 0.039 0.231 0 0.231 0 4.72E-6 5.01E-2 ergy resurressources see of nor of non r	C4  0.072 0 0.072 1.5 0 1.5 0 1.2E-3 2.86E-3 5.55E-2 Durres us wable pri used as a renewa enewable	C4/1  0.155 0 0.155 3.05 0 3.05 0 8.66E-5 8.99E-4 1.52E-1 sed as r. mary en raw mar en raw mar en raw mar en second	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	-0.325 0 -0.325 -1.95 0 -1.95 0 -3.98E-5 -4.17E-4 -4.22E-1 rials; PE ources; I PENRM = gy resou s; FW =	-0.76 0 -0.76 -19 0 -19 0 -2.2E-4 -2.3E-3 -9.88E-1 RM = Us PENRE = Use of urces; SM Use of n	-0.108 0 -0.108 -41.9 0 -41.9 0 -1.37E-5 -1.43E-4 -1.96E-1 se of = Use of non M = Use et fresh
Paramet PERE PERM PENRE PENRE PENRE PENRE SM RSF NRSF FW  Caption  RESUIT 1 m² fl  Paramet HWD	Prenew renew of see	Unit A MJ MJ MJ MJ MJ MJ MJ MJ MJ ERRE = wable p non rene wable p condar OF The	7.6 0 7.6 0.4.531 38.469 143 0.536 2.04E-3 7 2.13E-2 7 2.13E-2 7 2.19E-1 1 Use of rurimary e ewable portimary e y materia	A4 0.045 0 0.045 0 0.045 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0.045 0 0 0 0.045 0 0 0 0.045 0 0 0 0.045 0 0 0.045 0 0 0 0.045 0 0 0 0.045 0 0 0 0 0.045 0 0 0 0 0.045 0 0 0 0.045 0 0 0 0 0.045 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2.99 0 2.99 0 19.3 0 19.3 0.04 2.77E4 2.89E-3 1.87E+0 e primar sources energy e.ssources = Use of Use of 0	B1 0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 used as xcluding s used as renewal	0.5 0 0.5 6.55 0 6.55 0 2.03E-4 2.13E-3 8.49E-1 7 exclud raw ma non rer s raw ma ble seco	n² floo  C2  0.002 0 0.002 0.063 0 0.063 0 4.0E-7 4.19E-6 2.47E-4 ing renew interials; Faewable paterials; Iondary fu	C3  0 0 0 0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 Torimary e PENRT = rels; 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 nergy re Total use r  ATEG	C3/2  0.039 0 0.039 0.231 0 0.231 0 4.72E-6 4.94E-5 5.01E-2 ergy resord renew sources see of nor of non r	0.072 0 0.072 1.5 0 1.5 0 1.2E-3 2.86E-3 5.55E-2 ovarces us vable prin used as a renewa enewable	C4/1  0.155 0 0.155 3.05 0 3.05 0 8.66E-5 8.99E-4 1.52E-1 seed as ramary en raw marble prime e second	0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mate ergy res terials; F ary ener dary fuel	-0.325 0 -0.325 -1.95 0 -1.95 0 -3.98E-5 -4.17E-4 -4.22E-1 rials; PE ources; I PENRM = gy resot s; FW =	-0.76 0 -0.76 -19 0 -19 0 -2.2E-4 -2.3E-3 -9.88E-1 RM = Us PENRE : = Use of n	-0.108 0 -0.108 -41.9 0 -1.37E-5 -1.43E-4 -1.96E-1 se of = Use of non N = Use fresh
Paramet PERE PERM PERT PENRE PENRI SM RSF NRSF FW  Caption  RESUL 1 m² fl  Paramet HWD NHWD	F Preneur reneworks Supported the support of second contests and second contests are second contests and second contests and second contests and second contests are second contests and second contests and second contests and second contests and second contests are second contests and second contests and second contests are second contests a	Unit A MJ	7.6 0 7.6 0 4.531 38.469 143 0.536 0.04E-3 7.21E+1 2.21E+1 2.21E+1 2.41E-2 2.41E-2 2.41E-1 4.41E-2 4.41-A3 0 0.01E+0 2.01E+0 2	A4  0.045 0 0.045 0 1.15 0 1.15 0 1.15 0 7.29E-6 1.5Tean 4.5Tean 4.5Tean 4.5Tean 4.5Tean 4.5Tean 6.4Tean 6.4Te	2.99 0 2.99 0 19.3 0 19.3 0.04 2.77E-4 2.89E-3 1.87E+0 e primar sources energy e. esources = Use of	B1 0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+0 used as xcluding s used as renewal	0.5 0.5 0.5 6.55 0 6.55 0 2.03E-4 2.13E-3 8.49E-1 / excludd raw ma non rer s raw ma ble seco	n² floo  C2  0.002 0 0.002 0.063 0 0.063 0 4.0E-7 4.19E-6 2.47E-4 ing renewable paterials; I bindary fu  ID WA  C2  0 2.25E-4	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 0.0E+0 F = Use r  ATEG(  C3/1 0 0.0E+0	C3/2  0.039 0 0.039 0.231 0 0.231 0 4.72E-6 4.94E-5 5.01E-2 ergy residences sources see of nor of renew.	C4  0.072 0 0.072 1.5 0 1.5 0 1.2E-3 2.86E-3 5.55E-2 ourrees us wable print used as a renewale enewable  C4 0 1.49E+0	C4/1  0.155 0 0.155 3.05 0 3.05 0 8.66E-5 8.99E-4 1.52E-1 seed as ramary enraw marble prime e second	0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mate ergy resterials; F ary enerdary fuel	-0.325 0 -0.325 -1.95 0 -1.95 0 -3.98E-5 4.17E-4 4.22E-1 rials; PE ources; I PENRM = gy resou s; FW =	-0.76 0 -0.76 -19 0 -19 0 -2.2E-4 -2.3E-3 -9.88E-1 RM = Us PENRE: = Use of n  D/1 0 -1.04E+0	-0.108 0 -0.108 41.9 0 -1.37E-5 -1.43E-4 -1.96E-1 se of = Use of non M = Use et fresh
Paramet PERE PERM PENT PENRE PENRI SM RSF FW  Caption  RESULT 1 m² fl  Paramet HWD NHWD CRU	Prenew renew of section 1	Unit / MJ   MJ   MJ   MJ   MJ   MJ   MJ   MJ	7.6 0 7.6 0.4.531 38.469 143 0.536 2.04E-3 7 2.21E+1 4 Use of refirmary expended by material  HE LC/ ng 0 0.01E+0 4 9.99E-3 0	0.045 0 0.045 1.15 0 0 1.15 0 1.15 0 0 1.15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	A5 2.99 0 19.3 0 19.3 0.04 1.87E+0 e primar sources energy e esources = Use of  JTPUT  A5 0 0.515E-1 5.68E-4 0	B1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	9.5 0.5 0.5 6.55 0.6.55 0.6.55 0.6.55 0.7 0.6.55 0.7 0.6.55 0.7 0.6.55 0.7 0.6.55 0.7 0.6.55 0.7 0.6.55 0.7 0.6.55 0.7 0.6.55 0.7 0.6.55 0.7 0.6.25 0.0 0.6.25 0.0 0.6.25 0.0 0.6.25 0.0 0.6.25 0.0 0.6.25 0.0 0.6.25 0.0 0.6.25 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	n² floo  C2  0.002 0 0.002 0.063 0 0.063 0 4.0E-7 4.19E-6 2.47E-4 ing renew interials; Faewable paterials; Iondary 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 Total use nergy re Total use re ATEG(  C3/1  0 0.0E+0 0.0E+0 0.0E+0	C3/2  0.039 0 0.039 0 0.231 0 0.231 0 4.72E-6 5.01E-2 ergy results of renew sources see of nor of non r  ORIES  C3/2 0 5.23E-2 3.4E-5 0	C4  0.072 0 0.072 1.5 0 1.5 0 1.2E-3 2.86E-3 5.55E-2 Durces us wable print used as an renewable  C4 0 1.49E+0 2.75E-5	C4/1  0.155 0 0.155 3.05 0 3.05 0 3.05 0 8.66E-5 8.99E-4 1.52E-1 sed as ramary en raw marble prime e second	0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mate ergy resterials; Parary ener dary fuel	-0.325 0 -0.325 -1.95 0 -1.95 0 -3.98E-5 -4.17E-4 -4.22E-1 rials; PEources; PENRM = gy resous; FW =	-0.76 -0.76 -19 0 -19 0 -2.2E-4 -2.3E-3 -9.88E-1 RM = Us PENRE: = Use of in  D/1 0 -1.04E+0 -6.7E-4 0	-0.108 0 -0.108 -41.9 0 -41.9 0 -1.37E-5 -1.43E-4 -1.96E-1 se of = Use of non <i>M</i> = Use et fresh
Paramet PERE PERM PERT PENRE PENRI SM RSF NRSF FW  Caption  RESULT 1 m² fl Paramet HWD NHWD RWD CRU MFR	Prenew renew of see	Unit A MJ ERE = wable p non rene wable p condar Unit A kg	7.6 0 7.6 0 4.531 38.469 143 0.536 2.04E-3 7 2.21E+1 Use of rerimary e ewable portmary e y material  HE LC/ ng A1 - A3 0 0.01E+0 4.99E-3 0 0.089	A4 0.045 0 0.045 1.15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	A5 2.99 0 19.3 0 19.3 0.04 2.77E-4 2.89E-3 1.87E+0 e primar sources energy e esources = Use of  JTPUT  A5 0 0.515E-1 5.68E-4 0 0.073	B1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.5 0.5 0.5 6.55 0 6.55 0 2.03E-4 2.13E-3 8.49E-1 7 exclud raw ma non rer s raw ma ble seco VS AN B2 0 6.2E-1 3.95E-4 0 0	0.002 0.002 0.002 0.003 0 0.063 0 4.0E-7 4.19E-6 2.47E-4 ing renewable paterials; I product full by the paterials; I product full by	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 0 0 Total use nergy re  C3/1 0 0.0E+0 0.0E+0 0.0E+0 0.0E+0 0.0E+0 0.0E+0 0.0E+0 0.0E+0 0.0E+0	C3/2  0.039 0 0.039 0 0.231 0 0.231 0 4.72E-6 4.94E-5 5.01E-2 ergy results of renew sources see of nor of non r  C3/2 0 5.23E-2 3.4E-5 0 0	C4  0.072 0 0.072 1.5 0 1.5 0 1.2E-3 2.86E-3 5.55E-2 Durces us wable prinused as a renewale	C4/1  0.155 0 0.155 0 0.155 0 3.05 0 3.05 0 8.66E-5 8.99E-4 1.52E-1 9.44E-5 0 0	0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mate ergy resterials; P ary ener dary fuel	-0.325 0 -0.325 -1.95 0 -1.95 0 -3.98E-5 -4.17E-4 -4.22E-1 rials; PE ources; PE PENRM = gy resous; FW =	-0.76 0 -0.76 -19 0 -19 0 -2.2E-4 -2.3E-3 -9.88E-1 RM = Us PENRE : = Use of interpretation of the control of th	-0.108 0 -0.108 -41.9 0 -41.9 0 -1.37E-5 -1.43E-4 -1.96E-1 se of = Use of non M = Use tresh  D/2 0 -3.26E+1 -6.55E-5 0
Paramet PERE PERM PERTI PENRE PENRI PENRI SM RSF NRSF FW  Caption  RESUI 1 m² fl Paramet HWD NHWD RWD CRU MFR MER	renew of see	Unit A MJ	7.6 0 7.6 0 7.6 0 4.531 38.469 143 0.536 2.04E-3 7 2.13E-2 7 2.13E-2 7 2.13E-2 7 7 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	A4 0.045 0 0.045 1.15 0 1.15 0 1.15 0 7.29E-6: 7.64E-5: 2 4.51E-3 4.51E-3 1.61E-6: 0 0 0 0	A5 2.99 0 2.99 19.3 0 19.3 0.04 2.77E-4 2.89E-3 1.87E+0 e primar sources energy e esources e Use of USE-1 5.68E-4 0 0.073 0	B1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.5 0.5 0.5 6.55 0 6.55 0 2.03E-4 2.13E-3 8.49E-1 7 exclud raw ma non rer s raw ma ble secco VS AN B2 0 6.2E-1 3.95E-4 0 0	m² floo  C2  0.002 0 0.002 0.003 0 0.063 0 4.0E-7 4.19E-6 2.47E-4 ing renewable paterials; I pondary fu  ID WA  C2 0 2.25E-4 8.8E-8 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 0 0 0 0 0 0	C3/2  0.039 0 0.039 0.231 0 0.231 0 4.72E-6 5.01E-2 ergy results of renew sources see of nor of non r  C3/2 0 5.23E-2 3.4E-5 0 0 0	C4  0.072 0 0.072 1.5 0 1.5 0 1.2E-3 2.86E-3 5.55E-2 Durces us wable prinused as a renewalenewable  C4 0 1.49E+0 2.75E-5 0 0 0	C4/1  0.155 0 0.155 3.05 0 3.05 0 8.66E-5 8.99E-4 1.52E-1 5eed as ramary en raw mar ble prime e second  C4/1 0 0.8.1E-1 9.44E-5 0 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	-0.325 0 -0.325 -1.95 0 -1.95 0 -3.98E-5 -4.17E-4 -4.22E-1 rials; PE ources; RENRM = 2gy resous; FW =	-0.76 -0.76 -19 0 -19 0 -19 0 -2.2E-4 -2.3E-3 -9.88E-1  RM = Us PENRE : -Use of n  D/1 0 -1.04E+0 -6.7E-4 0 0	-0.108 0 -0.108 -41.9 0 -41.9 0 -1.37E-5 -1.43E-4 -1.96E-1 se of = Use of non M = Use tresh  D/2 0 -3.26E+1 -6.55E-5 0 0
Paramet PERE PERM PERT PENRE PENRI SM RSF NRSF FW  Caption  RESULT 1 m² fl Paramet HWD NHWD RWD CRU MFR	Prenew renew of see	Unit A MJ ERE = wable p non rene wable p condar Unit A kg	7.6 0 7.6 0 4.531 38.469 143 0.536 2.04E-3 7 2.21E+1 Use of rerimary e ewable portmary e y material  HE LC/ ng A1 - A3 0 0.01E+0 4.99E-3 0 0.089	A4 0.045 0 0.045 1.15 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	A5 2.99 0 19.3 0 19.3 0.04 2.77E-4 2.89E-3 1.87E+0 e primar sources energy e esources = Use of  JTPUT  A5 0 0.515E-1 5.68E-4 0 0.073	B1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.5 0.5 0.5 6.55 0 6.55 0 2.03E-4 2.13E-3 8.49E-1 7 exclud raw ma non rer s raw ma ble seco VS AN B2 0 6.2E-1 3.95E-4 0 0	0.002 0.002 0.002 0.003 0 0.063 0 4.0E-7 4.19E-6 2.47E-4 ing renewable paterials; I product full by the paterials; I product full by	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 0 0 Total use nergy re  C3/1 0 0.0E+0 0.0E+0 0.0E+0 0.0E+0 0.0E+0 0.0E+0 0.0E+0 0.0E+0 0.0E+0	C3/2  0.039 0 0.039 0 0.231 0 0.231 0 4.72E-6 4.94E-5 5.01E-2 ergy results of renew sources see of nor of non r  C3/2 0 5.23E-2 3.4E-5 0 0	C4  0.072 0 0.072 1.5 0 1.5 0 1.2E-3 2.86E-3 5.55E-2 Durces us wable prinused as a renewale	C4/1  0.155 0 0.155 0 0.155 0 3.05 0 3.05 0 8.66E-5 8.99E-4 1.52E-1 9.44E-5 0 0	0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mate ergy resterials; P ary ener dary fuel	-0.325 0 -0.325 -1.95 0 -1.95 0 -3.98E-5 -4.17E-4 -4.22E-1 rials; PE ources; PE PENRM = gy resous; FW =	-0.76 0 -0.76 -19 0 -19 0 -2.2E-4 -2.3E-3 -9.88E-1 RM = Us PENRE : = Use of interpretation of the control of th	-0.108 0 -0.108 -41.9 0 -41.9 0 -1.37E-5 -1.43E-4 -1.96E-1 se of = Use of non M = Use tresh  D/2 0 -3.26E+1 -6.55E-5 0
Paramet PERE PERM PERM PENRI PENRI SM RSF NRSF FW  Caption  RESUIT 1 m² fl Paramet HWD NHWD RWD CRU MFR MER EEE	ter U	Unit A MJ	7.6 0 7.6 0 7.6 0 4.531 38.469 143 0.536 2.04E-3 7.21E+1 2.21E+1 2.21E	A4 0.045 0 0.045 1.15 0 1.15 0 1.15 0 7.29E-6 2 7.64E-5 2 1.51E-3 1 energy real; RSF : A — OL A4 0 1.11E-3 9 1.6E-6 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2.99 0 2.99 0 19.3 0 19.3 0.04 2.77E-4 2.89E-3 1.87E+0 e primar sources energy e.esources = Use of Use of 0.073 0 0.0217 1.24 eposed; I	B1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.5 0 0.5 6.55 0 6.55 0 2.03E-4 2.13E-3 8.49E-1 y excludd raw mannon reris	n² floo  C2  0.002 0 0.002 0 0.063 0 0.063 0 4.0E-7 4.19E-6 2.47E-4 ing renewable paterials; Indary fu  ID WA  C2 0 2.25E-4 8.8E-8 0 0 0 0 0 0 uzardous	C3  0 0 0 0 0 0 0 0 0 0 0 0 0.0E+0 0.0E+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 0.0E+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 0.0E+0 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  0.039 0 0.039 0.031 0 0.231 0 4.72E-6 4.94E-5 5.01E-2 ergy resort of renew sources see of nor of renew C3/2 0 5.23E-2 3.4E-5 0 0 0 RWD =	C4  0.072 0 0.072 1.5 0 1.5 0 1.2E-3 2.86E-3 5.55E-2 0 ources us wable print used as a renewale enewable  C4 0 1.49E+0 2.75E-5 0 0 0.826 0 Radioact	C4/1  0.155 0 0.155 3.05 0 3.05 0 8.66E-5 8.99E-4 1.52E-1 seed as ramary enraw marble prime a second	0 0 0 0 0 0 0 0.0E+0 0.0E+0 0.0E+0 aw mate ergy resterials; F ary ener dary fuel 0.0E+0 0.0E+	-0.325 0 -0.325 -1.95 0 -1.95 0 -3.98E-5 -4.17E-4 -4.22E-1 rials; PE ources; F PE NRM = gy reso. s; FW =  D 0 -4.41E-1 -2.87E-4 0 0 0 0 osed; CRU	-0.76 0 -0.76 -19 0 -19 0 -19 0 -2.2E-4 -2.3E-3 -9.88E-1 RM = Us PENRE: = Use of irrces; SN Use of n  -1.04E+0 -6.7E-4 0 0 0 0 J = Com	-0.108 0 -0.108 -41.9 0 -41.9 0 -1.37E-5 -1.43E-4 -1.96E-1 se of = Use of non M = Use et fresh  D/2 0 -3.26E+1 -6.55E-5 0 0 0 0 ponents

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

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