ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A1

Owner of the Declaration	MeisterWerke Schulte GmbH
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-MWS-20220223-CBA1-EN
Issue date	21.09.2022
Valid to	17.09.2023

MeisterDesign.pro resilient polyurethane floor covering for adhesive bonding, total weight 3,4 kg/m² MeisterWerke Schulte GmbH



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



General Information

MeisterWerke Schulte GmbH

Programme holder

IBU – Institut Bauen und Umwelt e.V. Hegelplatz 1 10117 Berlin Germany

Declaration number

EPD-MWS-20220223-CBA1-EN

This declaration is based on the product category rules: Floor coverings, 02/2018 (PCR checked and approved by the SVR)

Issue date

21.09.2022

Valid to 17.09.2023

Man liten

Dipl. Ing. Hans Peters (chairman of Institut Bauen und Umwelt e.V.)

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Dr. Alexander Röder (Managing Director Institut Bauen und Umwelt e.V.))

Product

Product description/Product definition

"MeisterDesign.pro" - resilient floor covering based on polyurethane is produced with the reactive component castor oil as renewable raw material and with natural inorganic filler.

"MeisterDesign.pro" flooring is available in many different decors and textures and it is offered as planks.

The declaration applies to a product with a total weight of 3,4 $\mbox{kg/m^2}.$

For the placing on the market of the product in the European Union/European Free Trade Association (EU/EFTA with the exception of Switzerland) Regulation (EU) No. 305/2011 /CPR/ applies. The Declaration of Performance of the products taking into consideration *EN 14041* and the CE-marking of the products can be found on the manufacturer's technical information section.

MeisterDesign.pro

resilient polyurethane floor covering for adhesive bonding, total weight 3,4 kg/m² Owner of the declaration

Owner of the declaration

MeisterWerke Schulte GmbH Johannes Schulte Allee 5 59602 Rüthen-Meiste Germany

Declared product / declared unit

1 m² resilient floor covering 'MeisterDesign'

Scope:

The manufacturer declaration applies to a product with a total weight of 3,4 kg/m².

The product is available as rolls or planks. It is manufactured at the Windmoller GmbH site in Detmold, Germany. Cutting of planks take place at the Windmoller GmbH site in Augustdorf, Germany.

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.

The EPD was created according to the specifications of *EN 15804+A1*. In the following, the standard will be simplified as *EN 15804*.

	Verification									
	The standard EN 15804 serves as the core PCR									
	Independent verification of the declaration and data according to ISO 14025:2011									
_	internally	x externally								
	Angela Sc	hindle-								
	Angela Schindler (Independent verifier)									

Application

According to the use class as defined in *ISO 10874* the product can be used

- in domestic areas, classified as use class 23,
- in commercial areas, classified as use class 33

Technical Data

Constructional data

Name	Value	Unit
Grammage	3,4	kg/m²
Product Form	Planks 1295x219mm	-

Additional product properties in accordance with *EN* 16776 and performance data of the product in

accordance with the Declaration of Performance with respect to its Essential Characteristics according to EN 14041 can be found on the manufacturer's technical information section (www.meisterwerke.com).

Base materials/Ancillary materials

Name	Value	Unit
Polyurethane including 64% renewable material	45,4	%
Filler	49,4	%
Paper	2.0	%
Glass fibre	0,9	%
Polyester	2,3	%

The specific product coverd by the EPD contains substances listed in the ECHA candidate list

LCA: Calculation rules

Declared Unit

Name	Value	Unit
Declared unit	1	m ²
Conversion factor to 1 kg	0.29	-
Grammage	-	kg/m ²
Layer thickness	-	m
Mass reference	3,4	kg/m²
Gross density	-	kg/m ³

The declared unit refers to 1 m² produced floor covering. Output of module A5 'Assembly' is 1 m² installed floor covering.

System boundary

Type of EPD: Cradle-to-grave

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

A1-A3 Production:

Energy supply and production of the basic material, auxiliary material, transport of the material to the manufacturing site, emissions, waste water treatment, packaging material and waste processing up to the landfill disposal of residual waste (except radioactive waste). Benefits for generated electricity and steam due to the incineration of production waste are aggregated.

A4 Transport:

Transport of the packed floor covering from factory gate to the place of installation.

A5 Installation:

Installation of the floor covering, processing of installation waste and packaging waste up to the landfill disposal of residual waste (except radioactive waste), the production of the amount of floor covering that occurs as installation waste including its transport to the place of installation.

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

Preparing of the floor and adhesives are beyond the system boundaries and not taken into account.

B1 Use:

(08.07.2021) or other carcinogenic. mutagenic or reprotoxic (CMR) substances in categories 1A or 1B which are not on the candidate list exceeding 0.1 percentage by mass: no

Reference service life

A calculation of the reference service life according to ISO 15686 is not possible.

The service life of resilient floor coverings depends on the correct installation taking into account the declared use classification and the adherence to cleaning and maintenance instructions.

A minimum service life of 20 years can be assumed BNB, technical service life can be considerably longer.

Indoor emissions during the use stage. After the first year, no product related VOC emissions are relevant due to VOC decay curves of the product.

B2 Maintenance:

Cleaning of the floor covering for a period of 1 year: Vacuum cleaning - electricity supply Wet cleaning - water consumption, production of the cleaning agent, waste water treatment. The declared values in this module have to be multiplied by the assumed service life of the floor covering in the building in question (see annex, chapter 'General information on use stage').

B3 - B7:

The modules are not relevant and therefore not declared.

C1 De-construction:

Energy consumption of the de-construction machine.

C2 Transport:

Transport of the floor covering waste to a landfill or to the municipal waste incineration plant (MWI).

C3 Waste processing:

C3-1: Landfill disposal need no waste processing. C3-2: Impact from waste incineration (plant with R1>0.6), generated electricity and steam are listed in the result table as exported energy.

C4 Disposal

C4-1: Impact from landfill disposal. C4-2: The floor covering waste leaves the system in module C3-2,

D Recycling potential:

D-A5: Benefits for generated energy due to incineration of packaging and installation waste (incineration plant with R1 > 0.6), D-1: Benefits for generated energy due to landfill disposal of floor covering waste at the end-of-life,

D-2: Benefits for generated energy due to incineration of floor covering waste at the end-of-life (incineration plant with R1 > 0.6),

Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to EN 15804 and the building

context, respectively the product-specific characteristics of performance, are taken into account.

Background data are taken from the *GaBi database* 2018, service pack 35 and from the *ecoinvent* 3.3 database

LCA: Scenarios and additional technical information

The following information refer to the declared modules and are the basis for calculations or can be used for further calculations. The indicated values refer to the declared functional unit of all products with a total weight of $3,4 \text{ kg/m}^2$.

Specific information on products having a lower total weight can be taken from the annex.

Transport to the construction site (A4)

Name	Value	Unit					
Litres of fuel , diesel, truck EURO 0-6 mix	0.0075	l/100km					
Litres of fuel , heavy fuel oil, ship	0.00084	l/100km					
Transport distance truck	540	km					
Transport distance ship	750	km					
Capacity utilisation (including empty runs) truck	60	%					
Capacity utilisation (including empty runs) ship	48	%					

Installation in the building (A5)

Name	Value	Unit					
Material loss	0.1	kg					
Coated packaging paper and installation waste are							

considered to be incinerated in a municipal waste incineration plant. Pure cardboard packaging waste is going to be recycled.

Preparation of the floor and adhesives are not taken into account.

Maintenance (B2)

Indication per m² floor covering and per year. Depending on the application based on *EN ISO 10874*, the technical service life recommended by the manufacturer and the anticipated strain on the floor by customers, the case-specific useful life can be established. The effects of Module B2 need to be calculated on the basis of this useful life in order to obtain the overall environmental impacts.

Name	Value	Unit
Maintenance cycle (wet wiping)	103,2	1/year
Maintenance cycle (vacuum cleaning)	37,4	1/year
Water consumption (wet wiping)	0.026	m ³
Cleaning agent (wet wiping)	0.05	kg
Electricity consumption	0.09	kWh

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

End of Life (C1-C4)

Two different end-of-life scenarios are declared and the results are indicated separately in module C. Each scenario is calculated as a 100 % scenario.

Scenario 1: 100 % landfill disposal Scenario 2: 100 % municipal waste incineration (MWI) with R1>0.6

If combinations of these scenarios have to be calculated this should be done according to the following scheme:

EOL-impact = x % impact (Scenario 1) + y % impact (Scenario 2)

Name	Value	Unit
Collected as mixed construction waste (scenario 1 and 2)	3.4	kg
Landfilling (scenario 1)	3.4	kg
Energy recovery (scenario 2)	3.4	kg

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

Recovery potentials due to the two end-of-life scenarios (module C) are indicated separately.

LCA: Results

The results are valid for the declared product with a total weight of 3,4 kg/m².

The declared result figures in module B2 have to be multiplied by the assumed service life (in years) of the floor covering in the building under consideration.

Information on un-declared modules:

Modules B3 - B7 are not relevant during the service life of the floor covering and are therefore not declared. Modules C3/1, C4/2 and C4/3 cause no additional impact (see "LCA: Calculation rules") and are therefore not declared. Module C2 represents the transport for scenarios 1 and 2. Column D represents module D/A5. The *CML characterisation factors* version January 2016 are applied.

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE NOT DECLARED; MNR = MODULE NOT RELEVANT)

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PENF PENF SM RSF NRSS FW Captio RESU 1 m ² 1 Parama HWI NHW RWI CRU	RE RM RT F rene of se JLTS floor(eter D J	[MJ] 9 [MJ] 1 [M] 1 [M] <td>9.37E+1 1.25E+1 1.25E+1 1.06E+2 1.41E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.25E-1 1.58E-1 1.5</td> <td>2.27E+0 0.00E+0 2.27E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2.03E4 newable ergy ress imary en- ergy ress i; RSF = - WA A4 1.14E-7 1.67E4 3.06E-6 0.00E+0 0.00E+</td> <td>3.27E+ 0.00E+ 3.27E+ 3.27E+ 4.24E- 0.00E+ 0.00E+ 2.00E- primary e Durces us sergy excluores us ources us Use of rel STE CA A5 1.72E- 2.66E- 5.65E- 0.00E+</td> <td>0 0.000 0 0.000 0 0.000 3 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 1 0.000 eed as rate eed as rate eed as rate eed as rate 1 0.000 1 0.000 2 0.000 3 0.000 0 0.000</td> <td>DE+0 DE+0 DE+0 DE+0 DE-0 DE+0 DE-0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0</td> <td>6.30E-1 4.07E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 7.45E-3 mg renew erials; Pf wable pr terials; Pf brdary fue S AND B2 1.33E-9 3.84E-2 1.29E-4 0.00E+0</td> <td>4.48E- 1.19E- 0.00E+ 1.19E- 0.00E+ 0.0E+</td> <td>0 0.00 2 7.74 1 1.4 0 0.00 1 1.4 0 0.00 1 1.4 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00</td> <td>BE-3 2 1E-1 1 DE+0 - DE+0 0 DE-0 0 DE-0 0 DE-0 0 DE-0 0 DE-0 0</td> <td>2.70E-1 1.45E+1 1.25E+1 2.00E+0 0.00E+0 0.00E+0 1.35E-2 ources us wable pri used as n-renewable cases cases 1.13E-8 7.23E-1 9.64E-5 0.00E+0</td> <td>2.67E-1 3.59E+0 0.00E+C 3.59E+0 0.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C 9.23E-6 sed as ra mary ena raw mat ble prim e second to the second to</td> <td> -1.63 -8.51 0.00E -8.51 0.00E </td> <td>E-1 0.0 E-1 0.0 E-2 0.0 E-2 0.0 E-1 0.0 E-1</td> <td>00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 1 Use of +A1: D/1 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0</td> <td>-4.80E+0 -2.51E+1 0.00E+0 -2.51E+1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -6.55E-3 Use of E = Use of of non- SM = Use f net fresh D/2 -1.02E-8 -1.07E-2 -2.11E-3 0.00E+0</td>	9.37E+1 1.25E+1 1.25E+1 1.06E+2 1.41E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.25E-1 1.58E-1 1.5	2.27E+0 0.00E+0 2.27E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2.03E4 newable ergy ress imary en- ergy ress i; RSF = - WA A4 1.14E-7 1.67E4 3.06E-6 0.00E+0 0.00E+	3.27E+ 0.00E+ 3.27E+ 3.27E+ 4.24E- 0.00E+ 0.00E+ 2.00E- primary e Durces us sergy excluores us ources us Use of rel STE CA A5 1.72E- 2.66E- 5.65E- 0.00E+	0 0.000 0 0.000 0 0.000 3 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 1 0.000 eed as rate eed as rate eed as rate eed as rate 1 0.000 1 0.000 2 0.000 3 0.000 0 0.000	DE+0 DE+0 DE-0 DE+0 DE-0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0	6.30E-1 4.07E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 7.45E-3 mg renew erials; Pf wable pr terials; Pf brdary fue S AND B2 1.33E-9 3.84E-2 1.29E-4 0.00E+0	4.48E- 1.19E- 0.00E+ 1.19E- 0.00E+ 0.0E+	0 0.00 2 7.74 1 1.4 0 0.00 1 1.4 0 0.00 1 1.4 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00	BE-3 2 1E-1 1 DE+0 - DE+0 0 DE-0 0 DE-0 0 DE-0 0 DE-0 0 DE-0 0	2.70E-1 1.45E+1 1.25E+1 2.00E+0 0.00E+0 0.00E+0 1.35E-2 ources us wable pri used as n-renewable cases cases 1.13E-8 7.23E-1 9.64E-5 0.00E+0	2.67E-1 3.59E+0 0.00E+C 3.59E+0 0.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C 9.23E-6 sed as ra mary ena raw mat ble prim e second to the second to	 -1.63 -8.51 0.00E -8.51 0.00E 	E-1 0.0 E-1 0.0 E-2 0.0 E-2 0.0 E-1	00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 1 Use of +A1: D/1 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0	-4.80E+0 -2.51E+1 0.00E+0 -2.51E+1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -6.55E-3 Use of E = Use of of non- SM = Use f net fresh D/2 -1.02E-8 -1.07E-2 -2.11E-3 0.00E+0
PENF PENF SM RSF NRS FW Captio	RE RM RT F F rene of se JLTS floor(eter D J C D J R	[MJ] 9 [MJ] 9 [MJ] 1 [M] 1 [M] </td <td>9.37E+1 1.25E+1 1.25E+1 1.06E+2 1.41E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 Use of re rimary en wable pri rimary en y material 1.58E-1 1.84E-3 0.00E+0 0.00E+0</td> <td>2.27E+0 0.00E+0 2.27E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2.03E-4 newable ergy rest imary en- hergy rest ; RSF = - WA A4 1.14E-7 1.67E-4 3.06E-6 0.00E+0 0.00</td> <td>3.27E+ 0.00E+ 3.27E+ 0.00E+ 2.00E- 0.00E+ 2.00E- primary e pources us pources us STE CA A5 1.72E- 2.66E- 5.65E- 0.00E+ 1.29E-</td> <td>0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 2 0.000 2 0.000 2 0.000 2 0.000 2 0.000 2 0.000</td> <td>DE+0 DE+0 DE+0 DE+0</td> <td>6.30E-1 4.07E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 7.45E-3 mg renew erials; PF wable pr terials; PF bdary fue S AND B2 1.33E-9 3.84E-2 1.29E-4 0.00E+0 0.00E+0</td> <td>4.48E- 1.19E- 0.00E+ 1.19E- 0.00E+ 0.00E+ 0.00E+ 0.00E+ 0.00E+ ERT = T- imary ere ENRT = S; NRSF water OUTF 0.00E+ 5.59E- 8.40E- 1.97E- 0.00E+ 0.00</td> <td>0 0.00 2 7.73 1 1.4 0 0.00 1 1.4 0 0.00 1 1.4 0 0.00 0 0.00 0 0.00 0 0.00 5 1.43 mary encodal use bergy restrotal use Total use Total use F USE PUT FI 1.18 5 1.19 5 1.99 0 0.000 0 0.000</td> <td>BE-3 2 1E-1 1 DE+0 - DE+0 (0) DE+0 (0)</td> <td>2.70E-1 1.45E+1 1.25E+1 1.25E+1 2.00E+0 0.00E+0 0.00E+0 1.00E+0 1.00E+0 1.35E-2 ources us wable pri used as n-renewable accorr C3/2 1.13E-8 7.23E-1 9.64E-5 0.00E+0</td> <td>2.67E-1 3.59E+0 0.00E+C 3.59E+0 0.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C -9.23E-C sed as ra mary enerative ble prim e second cding t 1.53E-8 3.39E+0 5.10E-5 0.00E+C 0.00E+C</td> <td> -1.63 -8.51 0.00E -8.51 0.00E </td> <td>E-1 0.0 E-1 0.0 E-1</td> <td>00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0</td> <td>-4.80E+0 -2.51E+1 0.00E+0 -2.51E+1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -6.55E-3 Use of E = Use of of non- SM = Use f net fresh D/2 -1.02E-8 -1.07E-2 -2.11E-3 0.00E+0 0.00E+0 0.00E+0</td>	9.37E+1 1.25E+1 1.25E+1 1.06E+2 1.41E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 Use of re rimary en wable pri rimary en y material 1.58E-1 1.84E-3 0.00E+0 0.00E+0	2.27E+0 0.00E+0 2.27E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2.03E-4 newable ergy rest imary en- hergy rest ; RSF = - WA A4 1.14E-7 1.67E-4 3.06E-6 0.00E+0 0.00	3.27E+ 0.00E+ 3.27E+ 0.00E+ 2.00E- 0.00E+ 2.00E- primary e pources us pources us STE CA A5 1.72E- 2.66E- 5.65E- 0.00E+ 1.29E-	0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 2 0.000 2 0.000 2 0.000 2 0.000 2 0.000 2 0.000	DE+0 DE+0	6.30E-1 4.07E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 7.45E-3 mg renew erials; PF wable pr terials; PF bdary fue S AND B2 1.33E-9 3.84E-2 1.29E-4 0.00E+0 0.00E+0	4.48E- 1.19E- 0.00E+ 1.19E- 0.00E+ 0.00E+ 0.00E+ 0.00E+ 0.00E+ ERT = T- imary ere ENRT = S; NRSF water OUTF 0.00E+ 5.59E- 8.40E- 1.97E- 0.00E+ 0.00	0 0.00 2 7.73 1 1.4 0 0.00 1 1.4 0 0.00 1 1.4 0 0.00 0 0.00 0 0.00 0 0.00 5 1.43 mary encodal use bergy restrotal use Total use Total use F USE PUT FI 1.18 5 1.19 5 1.99 0 0.000 0 0.000	BE-3 2 1E-1 1 DE+0 - DE+0 (0)	2.70E-1 1.45E+1 1.25E+1 1.25E+1 2.00E+0 0.00E+0 0.00E+0 1.00E+0 1.00E+0 1.35E-2 ources us wable pri used as n-renewable accorr C3/2 1.13E-8 7.23E-1 9.64E-5 0.00E+0	2.67E-1 3.59E+0 0.00E+C 3.59E+0 0.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C -9.23E-C sed as ra mary enerative ble prim e second cding t 1.53E-8 3.39E+0 5.10E-5 0.00E+C 0.00E+C	 -1.63 -8.51 0.00E -8.51 0.00E 	E-1 0.0 E-1	00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0	-4.80E+0 -2.51E+1 0.00E+0 -2.51E+1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -6.55E-3 Use of E = Use of of non- SM = Use f net fresh D/2 -1.02E-8 -1.07E-2 -2.11E-3 0.00E+0 0.00E+0 0.00E+0
PENF PENF SM RSF NRSS FW Captio RESU 1 m ² 1 Parama HWI NHW RWI CRU	RE RM RT F F rene of se JLTS floor(eter D C C C C C C C C C C C C C C C C C C	[MJ] 9 [MJ] 9 [MJ] 1 [M] 1 [M] <td>9.37E+1 1.25E+1 1.25E+1 1.06E+2 1.41E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.25E-1 1.58E-1 1.5</td> <td>2.27E+0 0.00E+0 2.27E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2.03E4 newable ergy ress imary en- ergy ress i; RSF = - WA A4 1.14E-7 1.67E4 3.06E-6 0.00E+0 0.00E+</td> <td>3.27E+ 0.00E+ 3.27E+ 4.24E- 0.00E+ 2.00E- primary e burces us ergy excluources us use of rei STE CA A5 1.72E- 2.66E- 5.65E- 0.00E+ 1.29E- 0.00E+</td> <td>0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 nergy e ed as rate ding no ed as rate newable TEG(1 0.000 2 0.000 3 0.000 0 0.000 0 0.000 0 0.000</td> <td>DE+0 DE+0 DE+0 DE+0 DE-0 DE+0 DE-0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0</td> <td>6.30E-1 4.07E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 7.45E-3 mg renew erials; Pf wable pr terials; Pf brdary fue S AND B2 1.33E-9 3.84E-2 1.29E-4 0.00E+0</td> <td>4.48E- 1.19E- 0.00E+ 1.19E- 0.00E+ 0.0E+</td> <td>-0 0.00 2 7.74 1 1.4 -0 0.00 1 1.4 -0 0.00 -0 0.00 -0 0.00 -0 0.00 -0 0.00 -0 0.00 -0 0.00 -0 0.00 -1.43 -1.43 -0 0.00 -1.43 -1.43 -1.43 -1.43 -1.44 -0 -0 0.00 -1.43 -1.43 -1.43 -1.43 -1.44 -1.44 -1.45 -1.43 -1.41 -1.44 -1.41 -1.44 -1.41 -1.44 -1.41 -1.44 -1.41 -1.44 -1.41 -1.44 -1.41 -1.44 -1.41 -1.44 -1.41 -1.44 -1.41</td> <td>BE-3 2 1E-1 1 DE+0 - DE+0 C DE-5 D Program Sources Se of non-r D DE-0 C DE-0 C DE-0 C DE-0 C DE+0 C</td> <td>2.70E-1 1.45E+1 1.25E+1 2.00E+0 0.00E+0 0.00E+0 1.35E-2 ources us wable pri used as n-renewable cases cases 1.13E-8 7.23E-1 9.64E-5 0.00E+0</td> <td>2.67E-1 3.59E+0 0.00E+C 3.59E+0 0.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C 9.23E-6 sed as ra mary ena raw mat ble prim e second to the second to</td> <td> -1.63 -8.51 0.00E -8.51 0.00E 0.00E 0.00E 0.00E 0.00E 0.00E 0.00E ary resertals; Pary resertals; P</td> <td>E-1 0.0 E-1 0.0 E-2 0.0 E-2 0.0 E-10 0.0 E-10 0.0 E-10 0.0 E-4 0.0</td> <td>00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 1 Use of +A1: D/1 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0</td> <td>-4.80E+0 -2.51E+1 0.00E+0 -2.51E+1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.00E+0 D/2 -1.02E-8 -1.02E-8 -1.02E-8 -1.02E-8 0.00E+0</td>	9.37E+1 1.25E+1 1.25E+1 1.06E+2 1.41E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.25E-1 1.58E-1 1.5	2.27E+0 0.00E+0 2.27E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2.03E4 newable ergy ress imary en- ergy ress i; RSF = - WA A4 1.14E-7 1.67E4 3.06E-6 0.00E+0 0.00E+	3.27E+ 0.00E+ 3.27E+ 4.24E- 0.00E+ 2.00E- primary e burces us ergy excluources us use of rei STE CA A5 1.72E- 2.66E- 5.65E- 0.00E+ 1.29E- 0.00E+	0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 nergy e ed as rate ding no ed as rate newable TEG(1 0.000 2 0.000 3 0.000 0 0.000 0 0.000 0 0.000	DE+0 DE+0 DE-0 DE+0 DE-0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0 DE+0	6.30E-1 4.07E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 7.45E-3 mg renew erials; Pf wable pr terials; Pf brdary fue S AND B2 1.33E-9 3.84E-2 1.29E-4 0.00E+0	4.48E- 1.19E- 0.00E+ 1.19E- 0.00E+ 0.0E+	-0 0.00 2 7.74 1 1.4 -0 0.00 1 1.4 -0 0.00 -0 0.00 -0 0.00 -0 0.00 -0 0.00 -0 0.00 -0 0.00 -0 0.00 -1.43 -1.43 -0 0.00 -1.43 -1.43 -1.43 -1.43 -1.44 -0 -0 0.00 -1.43 -1.43 -1.43 -1.43 -1.44 -1.44 -1.45 -1.43 -1.41 -1.44 -1.41 -1.44 -1.41 -1.44 -1.41 -1.44 -1.41 -1.44 -1.41 -1.44 -1.41 -1.44 -1.41 -1.44 -1.41 -1.44 -1.41	BE-3 2 1E-1 1 DE+0 - DE+0 C DE-5 D Program Sources Se of non-r D DE-0 C DE-0 C DE-0 C DE-0 C DE+0 C	2.70E-1 1.45E+1 1.25E+1 2.00E+0 0.00E+0 0.00E+0 1.35E-2 ources us wable pri used as n-renewable cases cases 1.13E-8 7.23E-1 9.64E-5 0.00E+0	2.67E-1 3.59E+0 0.00E+C 3.59E+0 0.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C 9.23E-6 sed as ra mary ena raw mat ble prim e second to the second to	 -1.63 -8.51 0.00E -8.51 0.00E 0.00E 0.00E 0.00E 0.00E 0.00E 0.00E ary resertals; Pary resertals; P	E-1 0.0 E-1 0.0 E-2 0.0 E-2 0.0 E-10 0.0 E-10 0.0 E-10 0.0 E-4 0.0	00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 1 Use of +A1: D/1 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0 00E+0	-4.80E+0 -2.51E+1 0.00E+0 -2.51E+1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.00E+0 D/2 -1.02E-8 -1.02E-8 -1.02E-8 -1.02E-8 0.00E+0
PENF PENF SM RSF NRS FW Captio	RE RM RT F F rene of se JLTS floor(eter D D J R R R R	[MJ] 9 [MJ] 1 [M] 1															
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9.37E+1
1.25E+1
1.06E+2
1.41E-1
0.00E+0
0.00E+0
0.00E+0
0.00E+0
0.00E+0
1.58E-1
1.84E-3
0.00E+0
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0.00E+0
0.00E+0
0.00E+0
2.03E-4
newable
lergy rest
imary en-
hergy rest
imary en-
hergy rest
A4
1.14E-7
1.67E-4
3.06E-6
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 HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EEE = Exported thermal energy

 The CO2 uptake during the growth phase of renewable materials in the product is 2,32 kg. This amount is stored

in the material as biogenic carbon. At the end of life the stored carbon is released into the air again as 2,32 kg CO_2 emissions.

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