ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A1

Owner of the Declaration	Vorwerk & Co. Teppichwerke GmbH & Co. KG
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-VOR-20200031-CCC1-EN
Issue date	2020-04-17
Valid to	2025-04-16

Tufted broadloom carpet pile material polyamide 6.6, aqueous dyeing method, maximum total pile weight 1500 g/m²

Vorwerk flooring



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







General Information

Vorwerk flooring

Programme holder

IBU - Institut Bauen und Umwelt e.V. Panoramastr. 1 10178 Berlin Germanv

Declaration number

EPD-VOR-20200031-CCC1-EN

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

Issue date

2020-04-17

Valid to 2025-04-16

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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

Tufted broadloom carpet having a pile material of polyamide 6.6 and a woven textile backing made of polvester.

The carpet is coloured by aqueous dyeing methods. The declaration applies to a group of products with a maximum total pile weight of 1500 g/m².

The LCA results are calculated for products with the maximum total pile weight.

Product descriptions and LCA results for products of this group having a lower total pile weight than 1500 g/m² can be taken from the tables of the public EPDannexe. The LCA results always refer to the highest

Tufted broadloom carpet

pile material PA 6.6, aqueous dyeing method, maximum total pile weight 1500 g/m²

Owner of the declaration

Vorwerk & Co. Teppichwerke GmbH & Co. KG. Kuhlmannstraße 11 31785 Hameln Germany

Declared product / declared unit

1 m² tufted broadloom carpet having a pile material of polyamide 6.6

Scope:

The manufacturer declaration applies to a group of similar products with a maximum total pile weight of 1500 g/m².

The carpet is manufactured in the Vorwerk production site Hameln, Germany.

LCA results for products having a lower total pile weight can be taken from the corresponding tables of the annexe or can be calculated by using equation 1 given in the annexe (see annexe chapter: 'General Information on the annexe').

The declaration is only valid in conjunction with a valid GUT-PRODIS license of the product.

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 14025:2010

internally externally x

Schindle

Angela Schindler (Independent verifier appointed by SVR)

total pile weight of the corresponding pile weight category.Results for similar products with any other total pile weight can be calculated by using equation 1 given in the annexe (see annex echapter: 'General Information on the annexe').

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 Construction Product Regulation (CPR) applies. The product needs a Declaration of Performance (DoP) taking into consideration EN 14041 and the CE-marking. The DoP

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of the product can be found on the manufacturer's technical information section. For the application and use of the product the respective national provisions apply.

Application

According to the use class as defined in EN 1307 the products can be used in all professional areas. The use class can be found on the technical data sheet of the product.

Technical Data

Name	Value	Unit	
Product Form	broadloom carpet,		
	rolls of 4 m width	-	
	tufted carpet,		
Type of manufacture	aqueous dyeing method	-	
Yarn type	PA 6.6	-	
Secondary backing	Woven textile backing	-	
Total pile weight	max. 1500	g/m²	
Total carpet weight	max. 2500	g/m ²	

Performance data of the product in accordance with the declaration of performance with respect to its essential characteristics according to EN 14041. Additional product properties in accordance with EN 1307 can be found on the Product Information System PRODIS using the PRODIS registration number of the product (www.pro-dis.info) or on the manufacturer's technical information section (www.vorwerkflooring.de).

Base materials/Ancillary materials

Name	Value	Unit
Polyamide 6.6	60.0	%
Polyester	8.0	%
Polyethylene	11.2	%
Aluminium hydroxide	10.4	%
SBR latex	5.2	%
Ethylene-vinyl acetate	3.5	%
Recycled material	1.3	%
Additives	0.5	%

The products are registered in the GUT-PRODIS Information System. The PRODIS system ensures the compliance with limitations of various chemicals and Volatile Organic Compound (VOC)-emissions and a ban on the use of all substances that are listed as 'Substances of Very High Concern' (SVHC) under REACH.

This product contains substances listed in the REACH candidate list (27.06.2018) 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 textile floor coverings strongly 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 10 years can 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	0.4	-
Mass reference	2.50	kg/m²

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

System boundary

Type of EPD: Cradle-to-grave

System boundaries of modules A, B, C, D: Modules C3, C4 and D are indicated separately for three end-of-life scenarios:

1 - landfill disposal

- 2 municipal waste incineration 3 - recovery in a cement plant

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 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 textile floor covering from factory gate to the place of installation.

A5 Installation:

Installation of the textile 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 carpet 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.

Preparation of the floor and auxiliary materials (adhesives, fixing agents, PET connectors) are beyond the system boundaries and not taken into account.

B1 Use:

Indoor emissions during the use stage. After the first year, no product-related Volatile Organic Compound (VOC) emissions are relevant due to known VOC decay curves of the product.



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 by the assumed service life of the floor covering in the building in question.

<u>B3 - B7:</u>

The modules are not relevant and therefore not declared.

C1 De-construction:

The floor covering is de-constructed manually and no additional environmental impact is caused.

C2 Transport:

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

C3 Waste processing:

C3-1: Landfill disposal needs 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.

C3-3: Collection of the carpet waste, waste processing (granulating).

C4 Disposal

C4-1: Impact from landfill disposal, C4-2: The carpet waste leaves the system in

module C3-2, C4-3: The pre-processed carpet waste leaves the system in module C3-3.

D Recycling potential:

Calculated benefits result from materials exclusive secondary materials (net materials). 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 carpet waste at the end-of-life, D-2: Benefits for generated energy due to incineration

of carpet waste at the end-of-life (incineration plant with R1 > 0.6), D-3: Benefits for saved fossil energy and saved

inorganic material due to recovery of the carpet in a cement plant at the end-of-life, transport from the reprocessing plant to the cement kiln.

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* 2019, service pack 39. Remaining data gaps are covered by the *ecoinvent* 3.5 database 2018..

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 max. total pile weight of 1500 g/m².

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

Transport to the construction site (A4)

Name	Value	Unit
Litres of fuel (truck, EURO 0-6 mix)	0.018	l/100km
Transport distance	700	km
Capacity utilisation (including empty runs)	55	%

Installation in the building (A5)

Name	Value	Unit
Material loss	0.23	kg
Polyethylene packaging waste and in	stallation	waste

Polyethylene packaging waste and installation waste are considered to be incinerated in a municipal waste incineration plant. Cardboard is going to be recycled. Preparation of the floor and auxiliaries (adhesives, fixing agents, PET connectors etc.) are not taken into account.

Maintenance (B2)

The values for cleaning refer to 1 m^2 floor covering used in commercial areas per year.

Depending on the application based on *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 based on this useful life to obtain the overall environmental impacts.

1.5	1/year
208	1/year
0.004	m ³
0.09	kg
0.314	kWh
	0.004

Further information on cleaning and maintenance see www.vorwerk-flooring.de.

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 1: 100% landfill disposal Scenario 2: 100% municipal waste incineration (MWI)

with R1>0.6

Scenario 3: 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 1) + y% impact (Scenario 2) + z% impact (Scenario 3) with x% + y% + z% = 100%

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Name	Value	Unit
Collected as mixed construction waste	2.5	ka
(scenario 1 and 2)	2.5	kg
Collected separately (scenario 3)	2.5	kg
Landfilling (scenario 1)	2.5	kg
Energy recovery (scenario 2)	2.5	kg
Energy recovery (scenario 3)	2.24	kg
Recycling (scenario 3)	0.26	kg

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

Recovery or recycling potentials due to the three endof-life scenarios (module C) are indicated separately. <u>Recycling in the cement industry (scenario 3)</u> The organic material of the carpet is used as secondary fuel in a cement kiln. It mainly substitutes for lignite (64.5%), hard coal (26.5%) and petrol coke (9.0%). *VDZ e.V.*

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



LCA: Results

The results are valid for all declared products with a maximum total pile weight of 1500 g/m².

LCA results for product groups having a lower total pile weight can be taken from the corresponding tables of the annex. The LCA results always refer to the highest total pile weight of the corresponding pile weight category. Results for similar products with any other total pile weight can be calculated by using equation 1 given in the annex (see annex chapter: 'General Information on the annex'). 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 (see annex, chapter 'General Information on use stage').

Information on un-declared modules: Modules B3 - B7 are not relevant during the service life of the carpet and are therefore not declared. Modules C1, 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, 2 and 3. Column D represents module D/A5. The CML characterisation factors version January 2016 are applied.

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)

		DULE			ANT												
PROE	DUCT	STAGE	ON PR	TRUCTI OCESS AGE		USE STAGE END OF LIFE STAGE						LC BEYO SY:	TTS AND ADS ND THE STEM IDARIES				
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A1	A2	A3	A4	A5	B1	B2	B 3	B4	B5	B6	B7	C1	C2	C3	C4		D
Х	Х	Х	X	Х	Х	Х	MNR	MNR	MNR	MND	MND	MND	Х	X	X		Х
RESU	JLTS	OF TH	IE LCA	A - ENV	IRON	/ENT	AL IM	PACT	Гассо	rding t	o EN 1	5804+	A1: 1	m² fl	oorco	vering	
Para	meter		Unit	A1-A3	A4	A5	B	1 E	32	C2 C	3/2 0	3/3 0	24/1	D	D/1	D/2	D/3
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A	∖ P		 SO ₂ -Eq.]	3.06E-2	6.28E-4						33E-3 4.1			15 3.93E-4		14	15 -1.82E-3
	EP DCP		PO ₄) ³ -Eq.]			-		E+0 3.4			2E-3 3.8				0.00E+0) -4.50E-4	
	DCP DPE		hene-Eq.] Sb-Eq.]	3.73E-3 8.56E-6			4 6.29 7 0.00			46E-5 2.6					0.00E+0		-2.32E-4
A	DPF		[MJ]							13E-1 1.9						1	
Captio			Caption GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic fossil resources; ADPF = Abiotic depletion potential for fossil resources														
RESULTS OF THE LCA - RES				1033	li resour	ces; AL	PF = Ab	piotic dep	pletion pote	ential for t	ossil reso	ources					
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Parame PERI PERI PENF PENF SM RSF	eter	Unit (MJ) (C) [MJ] (C) (MJ) (C) [MJ] (C) (C) (C) [MJ] (C) (MJ) (C)	A1-A3 3.61E+1 0.00E+0 3.61E+1 2.96E+2 7.09E+1 3.67E+2 6.16E-2 0.00E+0 0.00E+0 1.19E-2	A4 1.17E-1 0.00E+0 1.17E-1 2.01E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.98E-4	A5 3.28E+0 0.00E+0 3.28E+0 3.34E+1 0.00E+0 3.34E+1 5.54E-3 0.00E+0 0.00E+0 2.34E-3	E USI B1 0.00E 0.00E 0.00E 0.00E 0.00E 0.00E 0.00E 0.00E 0.00E 0.00E	E acc +0 1.14 +0 0.00 +0 1.14 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 0.00 +0 0.00 +0 0.00 +0 0.00	ording 32 6E+0 6 0E+0 0 6E+0 6 1E+0 1 0E+0 0 1E+0 1 0E+0 0 7E-3 1	g to E C2 3.58E-3 3.00E+0 3.58E-3 1.13E-1 1.00E+0 1.00E+0 1.00E+0 1.00E+0 1.00E+0 1.11E-5	N 1580 C3/2 2.42E-1 0.00E+0 2.42E-1 7.30E+1 7.30E+1 2.17E+0 0.00E+0 0.00E+0 0.00E+0 1.34E-2	4+A1: C3/3 1.05E-1 0.00E+C 1.05E-1 7.11E+1 7.09E+ 2.61E-1 0.00E+C 0.00E+C 0.00E+C 1.24E-4	1 m² fl C4/1 1.86E- 0.00E+ 1.86E- 2.71E+ 0.00E+ 0.00E+ 2.71E+ 0.00E+ 0.00E+ 0.00E+ 4.59E-	I -8.35 0 0.000 1 -8.35 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -4.12 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000	D D bE-1 0 bE+0 0	D/1 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0	-8.84E+0 0.00E+0 -8.84E+0 -4.36E+1 0.00E+0 -4.36E+1 0.00E+0 0.00E+0 0.00E+0 -1.04E-2	-5.04E-1 0.00E+0 -5.04E-1 -6.41E+1 0.00E+0 -6.41E+1 2.59E-1 0.00E+0 7.09E+1 -5.45E-3
Parama PERI PERI PENF PENF PENF SM RSF	eter	Unit [MJ] ([MJ] (A1-A3 3.61E+1 3.00E+0 3.61E+1 2.96E+2 7.09E+1 3.67E+2 6.16E-2 0.00E+0 1.19E-2 Use of refrimary environments wable privable priv	A4 1.17E-1 0.00E+0 1.17E-1 2.01E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.98E-4 energy reso imary en- nergy reso	A5 3.28E+0 0.00E+0 3.24E+1 0.00E+0 3.34E+1 0.00E+0 3.34E+1 0.00E+0 2.34E-3 primary ources us ources us	E US B1 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	Home Home +0 1.11 +0 0.00 +0 1.11 +0 0.00 +0 8.1 +0 0.00 +0 0.00 +0 0.00 +0 0.00 +0 4.2 excludii aw mather aw mather aw mather aw mather aw mather aw mather aw mather	ording 32 6E+0 6 0E+0 0 6E+0 6 1E+0 1 0E+0 0 1E+0 1 0E+0 0 1E+0 1 0E+0 0 0E+0 0 0E+0 0 0E+0 0 0E+0 0 0E+0 0 verials; F evale evals; F evals; F evals; F evals; F	g to E C2 5.58E-3 0.00E+0 5.58E-3 1.13E-1 0.00E+0 1.00E+0 0.00E+0 0.00E+0 1.11E-5 wable p PERT = primary PENRT	N 1580 C3/2 2.42E-1 0.00E+0 2.42E-1 7.09E+1 2.17E+0 0.00E+0 0.00E+0 0.00E+0 1.34E-2 rimary en Total use energy re = Total use SF = Use	4+A1: C3/3 1.05E-1 0.00E+(1.05E-1 7.11E+1 -7.09E+ 2.61E-1 0.00E+(0.00E+(0.00E+(0.00E+(1.24E-4 ergy ress of renew sources se of nor	1 m² fl C4/1 1.86E- 0.00E+ 1.86E- 2.71E+ 1.86E- 0.00E+ 2.71E+ 0.00E+ 0.00E+ 0.00E+ <	I -8.35 0 0.00 1 -8.35 0 0.00 1 -8.35 0 -4.12 0 0.00 0 -4.12 0 0.00 0 -4.12 0 0.00 <td>D D isE-1 0 E+0 0 isE-1 0 E+0 0 aw ma ergy reterials; terials; hary en</td> <td>D/1 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 terials; F ssources PENRM ergy res</td> <td>-8.84E+0 0.00E+0 -8.84E+0 -4.36E+1 0.00E+0 -4.36E+1 0.00E+0 0.00E+0 0.00E+0 -1.04E-2 DERM = L S; PENRE 1 = Use o ources; S</td> <td>-5.04E-1 0.00E+0 -5.04E-1 -6.41E+1 0.00E+0 -6.41E+1 2.59E-1 0.00E+0 7.09E+1 -5.45E-3 Jse of = Use of f non-</td>	D D isE-1 0 E+0 0 isE-1 0 E+0 0 aw ma ergy reterials; terials; hary en	D/1 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 terials; F ssources PENRM ergy res	-8.84E+0 0.00E+0 -8.84E+0 -4.36E+1 0.00E+0 -4.36E+1 0.00E+0 0.00E+0 0.00E+0 -1.04E-2 DERM = L S; PENRE 1 = Use o ources; S	-5.04E-1 0.00E+0 -5.04E-1 -6.41E+1 0.00E+0 -6.41E+1 2.59E-1 0.00E+0 7.09E+1 -5.45E-3 Jse of = Use of f non-
Paramo PER PER PENF PENF PENR SM RSF NRS FW	E F Rene of set	Unit [MJ] ([MJ]	A1-A3 3.61E+1 0.00E+0 3.61E+1 2.90E+2 7.09E+1 3.67E+2 6.16E-2 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.19E-2 Use of rerimary ery wable primary ery y materia	A4 1.17E-1 0.00E+0 1.17E-1 2.01E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.98E-4 enewable nergy ress rimary en- nergy ress il, RSF =	OURC A5 3.28E+0 0.00E+0 3.34E+1 0.00E+0 3.34E+1 5.54E-3 0.00E+0 0.34E+1 5.54E-3 0.00E+0	B1 0.00E	+0 1.14 +0 1.11 +0 0.01 +0 1.11 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 0.00 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 0.01 +0 8.1 +0 0.00 +0 9.10 +0 1.11 +0 0.00 +0 0.00 +0 1.11 +0 0.00 +0 1.11 +0 1.11 +0 1.10 +0 <td< td=""><td>ording 32 6E+0 6 0E+0 0 6E+0 6 1E+0 1 0E+0 0 1E+0 1 0E+0 0 0E+0 0 0E+0 0 0E+0 0 0E+0 0 0E+0 0 7E-3 1 ng renew erials; F ewable p terials; F mdary fue fue</td><td>c2 5.58E-3 0.00E+0 5.58E-3 1.13E-1 0.00E+0 1.13E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.11E-5 wable p PERT = primary PENRT reles; NRT wat</td><td>N 1580 C3/2 2.42E-1 0.00E+0 2.42E-1 7.09E+1 2.17E+0 0.00E+0 0.00E+0 0.00E+0 1.34E-2 rimary en Total use energy re = Total use SF = Use</td><td>4+A1: C3/3 1.05E-1 0.00E+C 1.05E-1 7.11E+1 -7.09E+ 2.61E-1 0.00E+C 0.00E+C 0.00E+C 0.00E+C 1.24E-4 ergy ress of renew sources se of nor-ro</td><td>1 m² fl C4/1 1.86E- 0.00E+ 1.86E- 2.71E+ 0.00E+ 0.00E+ 2.71E+ 0.00E+ 0.00E+ 0.00E+ 4.59E- vable prir used as used ase -renewale</td><td>I -8.35 0 0.00 1 -8.35 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -9.84 seed as r mary en nraw maible prime > secon</td><td>bit 0 bit 1 0 bit 0 0 bit</td><td>D/1 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 terials; F sources PENRM ergy res els; FW</td><td>-8.84E+0 0.00E+0 -8.84E+0 4.36E+1 0.00E+0 -4.36E+1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -1.04E-2 PERM = L s; PENRE 1 = Use of ources; S = Use of</td><td>-5.04E-1 0.00E+0 -5.04E-1 -6.41E+1 0.00E+0 -6.41E+1 2.59E-1 0.00E+0 7.09E+1 -5.45E-3 Jse of = Use of f non- SM = Use</td></td<>	ording 32 6E+0 6 0E+0 0 6E+0 6 1E+0 1 0E+0 0 1E+0 1 0E+0 0 0E+0 0 0E+0 0 0E+0 0 0E+0 0 0E+0 0 7E-3 1 ng renew erials; F ewable p terials; F mdary fue fue	c 2 5.58E-3 0.00E+0 5.58E-3 1.13E-1 0.00E+0 1.13E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.11E-5 wable p PERT = primary PENRT reles; NRT wat	N 1580 C3/2 2.42E-1 0.00E+0 2.42E-1 7.09E+1 2.17E+0 0.00E+0 0.00E+0 0.00E+0 1.34E-2 rimary en Total use energy re = Total use SF = Use	4+A1: C3/3 1.05E-1 0.00E+C 1.05E-1 7.11E+1 -7.09E+ 2.61E-1 0.00E+C 0.00E+C 0.00E+C 0.00E+C 1.24E-4 ergy ress of renew sources se of nor-ro	1 m² fl C4/1 1.86E- 0.00E+ 1.86E- 2.71E+ 0.00E+ 0.00E+ 2.71E+ 0.00E+ 0.00E+ 0.00E+ 4.59E- vable prir used as used ase -renewale	I -8.35 0 0.00 1 -8.35 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -9.84 seed as r mary en nraw maible prime > secon	bit 0 bit 1 0 bit 0 0 bit	D/1 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 terials; F sources PENRM ergy res els; FW	-8.84E+0 0.00E+0 -8.84E+0 4.36E+1 0.00E+0 -4.36E+1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -1.04E-2 PERM = L s; PENRE 1 = Use of ources; S = Use of	-5.04E-1 0.00E+0 -5.04E-1 -6.41E+1 0.00E+0 -6.41E+1 2.59E-1 0.00E+0 7.09E+1 -5.45E-3 Jse of = Use of f non- SM = Use
Paramo PER PER PENF PENF PENF SM RSF NRS FW Captio	eter E M T RE RM RT F F F rene of so	Unit [MJ] ([MJ]	A1-A3 3.61E+1 3.00E+0 3.61E+1 2.96E+2 7.09E+1 3.67E+2 6.16E-2 0.00E+0 1.19E-2 Use of re- rimary er- wable pr- rimary er- wable y material	A4 1.17E-1 0.00E+0 1.17E-1 2.01E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.98E-4 enewable nergy ress rimary en- nergy ress il, RSF =	OURC A5 3.28E+0 0.00E+0 3.34E+1 0.00E+0 3.34E+1 5.54E-3 0.00E+0 0.34E+1 5.54E-3 0.00E+0	B1 0.00E	+0 1.14 +0 1.11 +0 0.01 +0 1.11 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 0.00 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 0.01 +0 8.1 +0 0.00 +0 9.10 +0 1.11 +0 0.00 +0 0.00 +0 1.11 +0 0.00 +0 1.11 +0 1.11 +0 1.10 +0 <td< td=""><td>ording 32 6E+0 6 0E+0 0 6E+0 6 1E+0 1 0E+0 0 1E+0 1 0E+0 0 0E+0 0 0E+0 0 0E+0 0 0E+0 0 0E+0 0 7E-3 1 ng renew erials; F ewable p terials; F mdary fue fue</td><td>c2 5.58E-3 0.00E+0 5.58E-3 1.13E-1 0.00E+0 1.13E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.11E-5 wable p PERT = primary PENRT reles; NRT wat</td><td>N 1580 C3/2 2.42E-1 0.00E+0 2.42E-1 7.30E+1 7.30E+1 2.17E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.34E-2 rimary en Total use energy re = Total us SF = Use er</td><td>4+A1: C3/3 1.05E-1 0.00E+C 1.05E-1 7.11E+1 -7.09E+ 2.61E-1 0.00E+C 0.00E+C 0.00E+C 0.00E+C 1.24E-4 ergy ress of renew sources se of nor-ro</td><td>1 m² fl C4/1 1.86E- 0.00E+ 1.86E- 2.71E+ 0.00E+ 0.00E+ 2.71E+ 0.00E+ 0.00E+ 0.00E+ 4.59E- vable prir used as used ase -renewale</td><td>I -8.35 0 0.00 1 -8.35 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -9.84 seed as r mary en nraw maible prime > secon</td><td>bit 0 bit 1 0 bit 0 0 bit</td><td>D/1 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 terials; F sources PENRM ergy res els; FW</td><td>-8.84E+0 0.00E+0 -8.84E+0 4.36E+1 0.00E+0 -4.36E+1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -1.04E-2 PERM = L s; PENRE 1 = Use of ources; S = Use of</td><td>-5.04E-1 0.00E+0 -5.04E-1 -6.41E+1 0.00E+0 -6.41E+1 2.59E-1 0.00E+0 7.09E+1 -5.45E-3 Jse of = Use of f non- SM = Use</td></td<>	ording 32 6E+0 6 0E+0 0 6E+0 6 1E+0 1 0E+0 0 1E+0 1 0E+0 0 0E+0 0 0E+0 0 0E+0 0 0E+0 0 0E+0 0 7E-3 1 ng renew erials; F ewable p terials; F mdary fue fue	c 2 5.58E-3 0.00E+0 5.58E-3 1.13E-1 0.00E+0 1.13E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.11E-5 wable p PERT = primary PENRT reles; NRT wat	N 1580 C3/2 2.42E-1 0.00E+0 2.42E-1 7.30E+1 7.30E+1 2.17E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.34E-2 rimary en Total use energy re = Total us SF = Use er	4+A1: C3/3 1.05E-1 0.00E+C 1.05E-1 7.11E+1 -7.09E+ 2.61E-1 0.00E+C 0.00E+C 0.00E+C 0.00E+C 1.24E-4 ergy ress of renew sources se of nor-ro	1 m² fl C4/1 1.86E- 0.00E+ 1.86E- 2.71E+ 0.00E+ 0.00E+ 2.71E+ 0.00E+ 0.00E+ 0.00E+ 4.59E- vable prir used as used ase -renewale	I -8.35 0 0.00 1 -8.35 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -9.84 seed as r mary en nraw maible prime > secon	bit 0 bit 1 0 bit 0 0 bit	D/1 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 terials; F sources PENRM ergy res els; FW	-8.84E+0 0.00E+0 -8.84E+0 4.36E+1 0.00E+0 -4.36E+1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -1.04E-2 PERM = L s; PENRE 1 = Use of ources; S = Use of	-5.04E-1 0.00E+0 -5.04E-1 -6.41E+1 0.00E+0 -6.41E+1 2.59E-1 0.00E+0 7.09E+1 -5.45E-3 Jse of = Use of f non- SM = Use
Paramo PER PER PENF PENF PENF SM RSF NRS FW Captio	eter E M T T RE RM RT F F F F F I I I I I I I I I I I I I	Unit [MJ] ([MJ] (A1-A3 3.61E+1 3.00E+0 3.61E+1 2.96E+2 7.09E+1 3.67E+2 6.16E-2 0.00E+0 1.19E-2 Use of re- rimary er- wable pr- rimary er- wable y material	A4 1.17E-1 0.00E+0 1.17E-1 2.01E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.98E-4 enewable nergy ress rimary en- nergy ress il, RSF =	OURC A5 3.28E+0 0.00E+0 3.34E+1 0.00E+0 3.34E+1 5.54E-3 0.00E+0 0.34E+1 5.54E-3 0.00E+0	B1 0.00E	acc +0 1.11 +0 0.00 +0 1.11 +0 0.00 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 0.00 +0 0.00 +0 0.00 +0 0.00 +0 0.00 +0 0.00 +0 4.2 excluding aw mat e secon S AN	ording 32 6E+0 6 0E+0 0 6E+0 6 1E+0 1 0E+0 0 1E+0 1 0E+0 0 0E+0 0 0E+0 0 0E+0 0 0E+0 0 0E+0 0 7E-3 1 ng renew erials; F ewable p terials; F mdary fue fue	c 2 5.58E-3 0.00E+0 5.58E-3 1.13E-1 0.00E+0 1.13E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.11E-5 wable p PERT = primary PENRT reles; NRT wat	N 1580 C3/2 2.42E-1 0.00E+0 2.42E-1 7.30E+1 7.30E+1 2.17E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.34E-2 rimary en Total use energy re = Total us SF = Use er	4+A1: C3/3 1.05E-1 0.00E+C 1.05E-1 7.11E+1 -7.09E+ 2.61E-1 0.00E+C 0.00E+C 0.00E+C 0.00E+C 1.24E-4 ergy ress of renew sources se of nor-ro	1 m² fl C4/1 1.86E- 0.00E+ 1.86E- 2.71E+ 0.00E+ 0.00E+ 2.71E+ 0.00E+ 0.00E+ 0.00E+ 4.59E- vable prir used as used ase -renewale	I -8.35 0 0.00 1 -8.35 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -9.84 seed as r mary en nraw maible prime > secon	DE-1 0 E+0 0 DE-1 0 DE-1 0 DE-1 0 E+0 0 B+0 0 E+0 0 B+0	D/1 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 .00E+0 terials; F sources PENRM ergy res els; FW	-8.84E+0 0.00E+0 -8.84E+0 4.36E+1 0.00E+0 -4.36E+1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -1.04E-2 PERM = L s; PENRE 1 = Use of ources; S = Use of	-5.04E-1 0.00E+0 -5.04E-1 -6.41E+1 0.00E+0 -6.41E+1 2.59E-1 0.00E+0 7.09E+1 -5.45E-3 Jse of = Use of f non- SM = Use
Paramo PER PER PENF PENF SM RSF NRS FW Caption	eter E M T T R R R F C F C C C C C C C C C C C C C	Unit [MJ] ([MJ] (A1-A3 3.61E+1 0.00E+0 3.61E+1 2.90E+2 7.09E+1 3.67E+2 6.16E-2 0.00E+0 0.00E+0 1.19E-2 Use of re rimary en wable priving y material HE LC/ ng A1-A3 8.99E-6	A4 1.17E-1 0.00E+0 1.17E-1 2.01E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.98E-4 enewable energy ress rimary en- nergy ress al; RSF = A - OU A4 1.13E-7	OURC A5 3.28E+0 0.00E+0 3.28E+0 3.34E+1 0.00E+0 3.34E+1 5.54E-3 0.00E+0 2.34E-3 primary ources u ources u use of re TPUTT F A5 8.20E-7	E USI B1 0.00E 0.00E 0.00E energy sed as prewable FLOW B1 0.00E 0.00E	Ho 1.11 +0 1.11 +0 0.01 +0 1.11 +0 0.01 +0 8.1 +0 0.01 +0 8.1 +0 0.00 +0 0.00 +0 0.00 +0 0.02 +0 0.02 +0 0.02 +0 0.02 +0 0.02 +0 0.02 +0 0.02 +0 0.02 +0 0.02 +0 0.02 +0 0.02 +0 0.02 +0 0.02 +0 0.02 +0 0.02 +0 0.02 +0 0.03 +0 0.04 +0 0.04 +0 0.04	ording 32 6E+0 6 0E+0 0 6E+0 6 12 1 0D+0 0 0E+0 0 1E+0 1 0D+0 0 period 0 7E-3 1 periodicital strains F modary function 0 D WA 32 9	g to E C2 5.58E-3 1.00E+0 5.58E-3 1.13E-1 1.00E+0 1.13E-1 1.00E+0 1.00E+0 1.00E+0 1.00E+0 1.00E+0 1.00E+0 1.11E-5 primary PERT = primary PERT	N 1580 C3/2 2.42E-1 0.00E+0 2.42E-1 7.30E+1 2.17E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.34E-2 rimary en Total use energy re = Total us SF = Use er CATEG C3/2 3.58E-9	4+A1: C3/3 1.05E-1 0.00E+C 1.05E-1 7.11E+1 7.09E+' 2.61E-1 0.00E+C	1 m² fl C4/1 1.86E- 0.00E+ 1.86E- 1.80E- 2.71E+ 1 0.00E+ 2.71E+ 0.00E+ 0.00E+ 2.71E+ 0.00E+ 0.00E+	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 5E-1 0 E+0 0 E+1 0 E+0 0 E+1 0 E+2 0 D E+2	D/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 1580 D/1 .00E+0	-8.84E+0 0.00E+0 -8.84E+0 4.36E+1 0.00E+0 -4.36E+1 0.00E+0 0.00E+0 0.00E+0 -1.04E-2 PERM = L s; PENRE 1 = Use of 4+A1: D/2 -1.79E-8	-5.04E-1 0.00E+0 -5.04E-1 -6.41E+1 0.00E+0 -6.41E+1 2.59E-1 0.00E+0 -7.09E+1 -5.45E-3 Jse of = Use of f non- SM = Use net fresh D/3 -7.31E-10
Paramo PERI PERI PENF PENF SM RSF NRS FW Caption 1 m ² 1 Paramo HWU NHW	eter E M T T R R F F F F f of se f f of se f f f of se f f of se f f of se f f f f f f f f f f f f f	Unit [MJ] ([MJ] (A1-A3 3.61E+1 1.00E+0 3.61E+1 2.96E+2 3.67E+2 6.16E-2 1.00E+0 0.00E+0 1.19E-2 Use of refringing environment Use of refringing environment wable primary environment wable primary environment the LCA ng A1-A3 8.99E-6 4.44E-1	A4 1.17E-1 0.00E+0 1.17E-1 2.01E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.98E-4 energy ress rimary en nergy ress al; RSF = A – OU 1.13E-7 1.64E-4	OURC A5 3.28E+0 0.00E+0 3.28E+0 3.28E+0 3.34E+1 0.00E+0 3.34E+1 5.54E-3 0.00E+0 2.34E-3 primary ources us ources us use of re TPUT F A5 8.20E-7 5.48E-2	E US B1 0.00E 0.	Hoto 1.11 +0 1.11 +0 0.00 +0 1.11 +0 8.1 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 8.1 +0 0.00 +0 4.2 excluding aw mather e secon SAN SAN 1.1 +0 1.1 +0 5.2	ording 32 6E+0 6 0E+0 0 6E+0 6 10E+0 0 0E+0 0 10 P 0 WA3 32 9 9E-9 6 2E-3 9	g to E C2 5.58E-3 1.00E+0 5.58E-3 1.13E-1 0.00E+0 1.13E-1 0.00E+0 1.00E+0 1.00E+0 1.00E+0 1.00E+0 1.00E+0 1.00E+0 1.00E+0 1.00E+0 STEC C2 5.33E-9 9.22E-6	N 1580 C3/2 2.42E-1 0.00E+0 2.42E-1 7.30E+1 2.17E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.34E-2 rimary en Total use energy re = Total use SF = Use er C3/2 3.58E-9 1.64E-1	4+A1: C3/3 1.05E-1 1.05E-1 1.05E-1 7.01E+1 7.09E+4 2.61E-1 0.00E+C 0.00E+C 0.00E+C 1.24E-4 ergy resc of renew sources se of nor-ro ORIES C3/3 1.25E-10 1.90E-4	1 m² fl C4/1 1.86E- 0.00E+ 1.86E- 2.71E+ 0.00E+ 0.00E+ 2.71E+ 0.00E+ 0.00E+	OOTCO 1 -8.35 0 0.00 1 -8.35 0 -4.12 0 -4.12 0 -4.12 0 -0.00	0 5E-1 0 5E-1 0 5E-1 0 5E-1 0 5E-1 0 5E+0 0 5E-1 0 5E+0 0 5E-1 0 6E+0 0 5E+0 0 6E+0 0 0 5E+0 0 6E+0 0 0 5E+0 0 6D 5E+0 0 5E+0 0 6D 5E+0 0 5E+0 0	D/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	-8.84E+0 0.00E+0 -8.84E+0 4.36E+1 0.00E+0 -4.36E+1 0.00E+0 0.00E+0 0.00E+0 -1.04E-2 2ERM = L s; PENRE 1 = Use of 4+A1: D/2 -1.79E-8 -1.88E-2	-5.04E-1 0.00E+0 -5.04E-1 -6.41E+1 0.00E+0 -6.41E+1 2.59E-1 0.00E+0 7.09E+1 7.09E+1 5.45E-3 Jse of f non- M = Use of f non- M = Use net fresh D/3 -7.31E-10 -1.24E-1
Paramo PER PER PENF PENF SM RSF NRS FW Caption	eter E M T T R E M T T F F F F D L L C C C C C C C C C C C	Unit [MJ] ([MJ] (A1-A3 3.61E+1 1.00E+0 3.61E+1 2.96E+2 7.09E+1 3.67E+2 6.16E-2 0.00E+0 1.19E-2 Use of re- rimary er- y materia 1E LCA ng A1-A3 8.99E-6 4.44E-1 8.13E-3	A4 1.17E-1 0.00E+0 1.17E-1 2.01E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.98E-4 enewable nergy ress rimary en- nergy ress rimary en- nergy ress rimary en- nergy ress 1; RSF = A - OU A4 1.13E-7	OURC A5 3.28E+0 0.00E+0 3.28E+0 3.34E+1 0.00E+0 3.34E+1 5.54E-3 0.00E+0 2.34E-3 primary ources u ources u use of re TPUTT F A5 8.20E-7	E US B1 0.00E	H H +0 1.11 +0 0.00 +0 1.11 +0 8.1 +0 0.00 +0 8.1 +0 0.00	ording 32 6E+0 6 0E+0 0 6E+0 6 10E+0 0 0E+0 0 revials; F wable p terials; F ndary fur 0 <td>g to E C2 5.58E-3 1.00E+0 5.58E-3 1.13E-1 1.00E+0 1.13E-1 1.00E+0 1.00E+0 1.00E+0 1.00E+0 1.00E+0 1.11E-5 primary PERT = primary PERT = prima</td> <td>N 1580 C3/2 2.42E-1 0.00E+0 2.42E-1 7.30E+1 7.30E+1 2.17E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.34E-2 rimary en Total use SF = Use er C3/2 3.58E-9 1.64E-1 7.41E-5</td> <td>4+A1: C3/3 1.05E-1 1.05E-1 7.11E+1 7.09E+2 2.61E-1 0.00E+C</td> <td>1 m² fl 1 C4/1 1.86E- 0.00E+ 1.86E- 2.71E+ 1 0.00E+ 2.71E+ 0.00E+ 0.00E+ 2.71E+ 0.00E+ 0.00E+ 0.00E+ 0.00E+<</td> <td>OOTCO 1 -8.35 0 0.00 1 -8.35 0 -4.12 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -0.00 0 0.000 0 -0.00 0 0.000 5 -9.84 ble prime second ding 1 - as conditional second - ble prime - as conditional second - ding 1 - as conditional second -</td> <td>0 5E-1 0 5E-1 0 5E-1 0 5E+1 0 5E-1 0 5E+1 0 5E-1 0 5E+1 0 5E-1 0 5E+0 0 5E+0 0 6E+0 0 0 10 6E+0 0 10 10 7 5E+0 0 3E+2 0</td> <td>D/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</td> <td>-8.84E+0 0.00E+0 -8.84E+0 4.36E+1 0.00E+0 -4.36E+1 0.00E+0 0.00E+0 0.00E+0 -1.04E-2 2ERM = L s; PENRE 1 = Use of 4+A1: D/2 -1.79E-8 -1.88E-2</td> <td>-5.04E-1 0.00E+0 -5.04E-1 -6.41E+1 0.00E+0 -6.41E+1 2.59E-1 0.00E+0 7.09E+1 -5.45E-3 Jse of ron M = Use of non M = Use net fresh -7.31E-10 -1.24E-1 -1.47E-4</td>	g to E C2 5.58E-3 1.00E+0 5.58E-3 1.13E-1 1.00E+0 1.13E-1 1.00E+0 1.00E+0 1.00E+0 1.00E+0 1.00E+0 1.11E-5 primary PERT = primary PERT = prima	N 1580 C3/2 2.42E-1 0.00E+0 2.42E-1 7.30E+1 7.30E+1 2.17E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.34E-2 rimary en Total use SF = Use er C3/2 3.58E-9 1.64E-1 7.41E-5	4+A1: C3/3 1.05E-1 1.05E-1 7.11E+1 7.09E+2 2.61E-1 0.00E+C	1 m² fl 1 C4/1 1.86E- 0.00E+ 1.86E- 2.71E+ 1 0.00E+ 2.71E+ 0.00E+ 0.00E+ 2.71E+ 0.00E+ 0.00E+ 0.00E+ 0.00E+<	OOTCO 1 -8.35 0 0.00 1 -8.35 0 -4.12 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -0.00 0 0.000 0 -0.00 0 0.000 5 -9.84 ble prime second ding 1 - as conditional second - ble prime - as conditional second - ding 1 - as conditional second -	0 5E-1 0 5E-1 0 5E-1 0 5E+1 0 5E-1 0 5E+1 0 5E-1 0 5E+1 0 5E-1 0 5E+0 0 5E+0 0 6E+0 0 0 10 6E+0 0 10 10 7 5E+0 0 3E+2 0	D/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	-8.84E+0 0.00E+0 -8.84E+0 4.36E+1 0.00E+0 -4.36E+1 0.00E+0 0.00E+0 0.00E+0 -1.04E-2 2ERM = L s; PENRE 1 = Use of 4+A1: D/2 -1.79E-8 -1.88E-2	-5.04E-1 0.00E+0 -5.04E-1 -6.41E+1 0.00E+0 -6.41E+1 2.59E-1 0.00E+0 7.09E+1 -5.45E-3 Jse of ron M = Use of non M = Use net fresh -7.31E-10 -1.24E-1 -1.47E-4
Paramo PERI PERI PENF PENF SM SM SM SM Caption Caption RESU 1 m ² 1 Paramo HWU NHW RWU CRU	eter F T R R R R R R R R R R R R R	Unit [MJ] ([MJ] (A1-A3 3.61E+1 0.00E+0 3.61E+1 2.96E+2 7.09E+1 3.67E+2 6.16E-2 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 Use of re rimary er wable pr rimary er y materia 8.99E-6 4.44E-1 8.13E-3 0.00E+0 1.09E+2	A4 1.17E-1 0.00E+0 1.17E-1 2.01E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.38E-4 nergy resa imary en- nergy resa imary en- nergy resa imary en- nergy resa 1.38E-7 1.64E-4 2.73E-6 0.00E+0 0.00E+0 0.00E+0	OURC A5 3.28E+0 0.00E+0 3.34E+1 3.34E+1 5.54E-3 0.00E+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 0.00E+0 S.24E-3 Primary B.20E-7 5.48E-2 7.39E4 0.00E+0 3.00E-2 0.00E+0 3.00E-2 0.00E+0 3.00E-2 0.00E+0 3.00E-2 0.00E+0 3.00E-2 0.00E+0 3.00E-2 0.00E+0 3.00E-2 0.00E+0 3.00E-2 0.00E+0 3.00E-2 0.00E+0 3.00E-2 0.00E+0 3.0	E US B1 0.00E	acc I +0 1.11 +0 0.00 +0 1.11 +0 0.00 +0 8.11 +0 0.00 +0 8.11 +0 0.00 +0 0.00 +0 0.02 +0 0.02 +0 0.02 +0 0.02 +0 0.02 e secoludia aw mate secoludia con-rener saw mate con-rener SAN +0 1.11 +0 5.2 +0 1.52 +0 0.30 +0 0.00 +0 0.00	ording 32 6E+0 6 6E+0 0 0 6 6E+0 0 0 0 6E+0 0 0 0 1E+0 1 0 0 0E+0 0 0 0 0E+0 0 0 0 7F-3 1 ng renew erials; F wable p terials; F adary fut D WA3 32 39 9E-9 6 2E-3 9 9E-9 6 2E-3 9 0E+0 0 0 0 0	g to E C2 5.58E-3 0.00E+0 5.58E-3 1.13E-1 0.00E+0 1.13E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 STE C C2 5.33E-9 9.22E-6 1.54E-7 0.00E+0	N 1580 C3/2 2.42E-1 0.00E+0 2.42E-1 2.42E-1 7.30E+1 7.30E+1 2.17E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.34E-2 rimary en Total use energy re = Total us SF = Use er C3/2 3.58E-9 1.64E-1 7.41E-5 0.00E+0 0.00E+0	4+A1: C3/3 1.05E-1 1.05E-1 1.05E-1 7.11E+1 7.09E+ 2.61E-1 0.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C 0.00E+C C3/3 1.25E-10 1.90E-4 2.59E-1	m² fl C4/1 1.86E- 0.00E+ 1.86E- 2.71E+ 0.00E+ 2.71E+ 0.00E+ 0.114E- 2.49E+ 3.61E- 0.00E+ 0.00E+	OOTCO 1 -8.35 0 0.000 1 -8.35 0 0.000 1 -8.35 0 0.000 0 -4.12 0 0.000 0 -4.12 0 0.000 0 -0.00 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 0.000 0 -1.76 5 -3.32 0 0.000 0 0.000	bit 1 0 E+1 0 E+1 0 E+1 0 E+1 0 E+1 0 E+1 0 E+1 0 0 E+1 E+1 0 0 E+1 E+1 0 0 E+1 E+1 0 0 E+1 B E+1 0 0 B E+1 0 0 B E+2 0 0 B E+2 0 0 B E+2 0 0 B E+2 0 0 B E+3 0 0 B E+3 0 0 B E+4 0 0 B E+4 0 E+4 C E+4 0 E+4	D/1 .00E+0	-8.84E+0 0.00E+0 -8.84E+0 4.36E+1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 2 ERM = L ; PENRE I = Use of 0.00E+0 2 Use of 4 +A1: D/2 -1.79E-8 -1.88E-2 -3.53E-3 0.00E+0 0.00E+0 0.00E+0	-5.04E-1 0.00E+0 -5.04E-1 -6.41E+1 0.00E+0 -6.41E+1 2.59E-1 0.00E+0 7.09E+1 -5.45E-3 Jse of f non- SM = Use of f non- SM = Use net fresh D/3 -7.31E-10 -1.24E-1 -1.47E4 0.00E+0 0.00E+0
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Institut Bauen und Umwelt e.V.	Publisher Institut Bauen und Umwelt e.V. Panoramastr. 1 10178 Berlin Germany	Tel Fax Mail Web	+49 (0)30 3087748- 0 +49 (0)30 3087748- 29 info@ibu-epd.com www.ibu-epd.com
Institut Bauen und Umwelt e.V.	Programme holder Institut Bauen und Umwelt e.V. Panoramastr 1 10178 Berlin Germany	Tel Fax Mail Web	+49 (0)30 - 3087748- 0 +49 (0)30 – 3087748 - 29 info@ibu-epd.com www.ibu-epd.com
E CARPETS AND B F	Author of the Life Cycle Assessment Gemeinschaft umweltfreundlicher Teppichboden (GUT) e.V. Schönebergstraße 2 52068 Aachen Germany	Tel Fax Mail Web	+49 (0)241 96843 410 +49 (0)241 96843 400 mail@gut-ev.de www.gut-ev.org
VORWERK	Owner of the Declaration Vorwerk & Co. Teppichwerke GmbH & Co. KG Kuhlmannstraße 11 31785 Hameln Germany	Tel Fax Mail teppic Web	+49 (0)5151 103 0 +49 (0)5151 103 377 andreas.kunze@vorwerk- h.de www.Vorwerk-flooring.de