ENVIRONMENTAL PRODUCT DECLARATION

as per *ISO 14025* and *EN 15804+A2*

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-20220236-CCA1-EN
Issue date	18.08.2022
Valid to	17.08.2027

FRENCH COUTURE tufted carpet made of recycled material

Balsan



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General Information

Balsan

Programme holder

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

Declaration number

EPD-BAL-20220236-CCA1-EN

This declaration is based on the product category rules: Floor coverings, 02/2018

(PCR checked and approved by the SVR)

Issue date

18.08.2022

Valid to

17.08.2027

Man liten

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

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

Product

Product description/Product definition

FRENCH COUTURE - tufted wall-to-wall carpet having a surface pile of solution-dyed polyamide 6 with 100 % recycled content, a polyester primary backing with 90 % recycled content and a textile backing made of polypropylene.

The total recycled content amounts to 48 %.

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*:2018-05, Resilient, textile and laminate floor coverings - Essential characteristics, and the CE-marking. The DoP 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.

FRENCH COUTURE - tufted carpet

made of recycled material

Owner of the declaration Balsan Corbilly - D14 36330 Arthon France

Declared product / declared unit

1 m² tufted carpet FRENCH COUTURE

Scope:

The manufacturer declaration applies to the tufted carpet FRENCH COUTURE with the GUT- PRODIS license number FAEF5DD0. The carpet is produced in the Balsan manufacturing sites Arthon, France. 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+A2. 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

Schindle

Angela Schindler (Independent verifier)

Application

According to the use class as defined in EN 1307 the products can be used in all professional areas which require class 33 or less.





Technical Data

Constructional data

Name	Value	Unit	
Product Form	Rolls of 4 m width	-	
Type of manufacture	Tufted carpet	-	
Yarn type	Polyamide 6,	_	
Гаптурс	100 % recycled	_	
Colouration	Solution-dyed yarn		
Primary backing	Polyester, 90 % recycled		
Secondary backing	Textile backing made of		
Secondary backing	polypropylene	-	
Surface pile weight	590	g/m²	
Surface pile thickness	4.3	mm	
Total pile weight	1050	g/m²	
Total carpet weight	2460	g/m ²	
Total thickness	8	mm	
Number of tufts or	1501	pce/dm ²	
loops	1301	pce/am	

Performance data of the product in accordance with the declaration of performance with respect to its essential characteristics according to *EN 14041*: 2018- 05, Resilient, textile and laminate floor coverings - Essential characteristics.

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.balsan.com).

Base materials/Ancillary materials

Name	Value	Unit
Polyamide 6	42.7	%
Polyester	5.9	%
Polypropylene	2.8	%
SBR-latex	12.0	%
Limestone	25.0	%
Aluminum hydroxide	11.5	%
Additives	0.1	%

This product contains substances listed in the ECHA candidate list (10.06.2022) 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 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*.

Reference service life

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

Alternatively, a reference service life of 10 years can be assumed, during which the functional and visual quality is guaranteed (*BNB, Nutzungsdauer von Bauteilen*). The technical service life can be significantly longer.

LCA: Calculation rules

Declared Unit

Name	Value	Unit
Declared unit	1	m ²
Grammage	2.46	kg/m ²
Layer thickness	0.009	m
Gross density	308	kg/m ³

The declared unit refers to 1 m^2 produced textile floor covering. The output of module A5 'Assembly' is 1 m^2 installed textile floor covering.

System boundary

Type of EPD

Cradle-to-gate with options, module C1-C4, module D, and additional modules A4, A5, B1, B2

<u>System boundaries of modules A, B, C, D</u> 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.

Biogenic carbon that is stored in renewable material (packaging paper) is taken into account as well as the associated carbon dioxide uptake from the air from which this biogenic carbon originates.

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.

Biogenic carbon that is stored in renewable materials in packaging paper is released as carbon dioxide emissions into the air at the end of life in module A5. Preparation of the floor and auxiliary materials



(adhesives, fixing agents, PET connectors) are beyond the system boundaries and not taken into account.

<u>B1 Use</u>

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 - B5 Repair, replacement, refurbishment</u> The modules are not relevant within the assumed reference service life of 10 years.

<u>B6 - B7 Operational energy and water use</u> No energy and water input are required for the operation of the carpet in the use stage. The modules are not relevant and 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.

LCA: Scenarios and additional technical information

Characteristic product properties Information on biogenic Carbon

Name	Value	Unit
Biogenic Carbon Content in	0.013	kg C
accompanying packaging	0.013	Ky C

1 kg biogenic Carbon is equivalent to 44/12 kg of CO2

Transport to the construction site (A4)

Name	Value	Unit
Litres of fuel	0.006	l/100km
Transport distance	700	km
Capacity utilisation (including empty runs)	55	%
Gross density of products transported	308	kg/m ³

Installation in the building (A5)

Name	Value	Unit
Material loss	0.221	kg

Polyethylene packaging waste and installation waste are considered to be incinerated in a municipal waste incineration plant. Cardboard packaging waste is going to be recycled. 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 for recovery in the cement industry, waste processing (granulating), transport to the cement plant, emissions from the incineration.

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

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.

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, 2022-1. Remaining data gaps are covered by the ecoinvent 3.7 database, 2020.

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 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. Based on this useful life the effects of module B2 need to be calculated in order to obtain the everall environmental impacts.

overall environmental impacts. Name Value Unit Maintenance cycle (vacuum Number/ 208 cleaning) year Number/ Maintenance cycle (wet cleaning) 1,5 year 4,4 Water consumption (wet cleaning) kg/year Cleaning agent (wet cleaning) 0,09 kg/year Electricity consumption 0,314 kWh/year



Reference service life

Name	Value	Unit
Life Span (according to BBSR)	10	а
Declared product properties (at the gate) and finishes	Corresponds to the specifications of EN 1307	-
An assumed quality of work, when installed in accordance with the manufacturer's instructions	Conforms to the manufacturer's instructions	-
Usage conditions, e.g. frequency of use, mechanical exposure	Use in areas corresponding to use class 33 according to EN 1307	-
Maintenance e.g. required frequency, type and quality and replacement of components	According to the manufacturers instructions	-

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 % recovery 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 %

Name	Value	Unit
Collected as mixed construction waste	2.46	kq
(scenario 1 and 2)	2.40	ĸġ
Collected separately (scenario 3)	2.46	kg
Landfilling (scenario 1)	2.46	kg
Energy recovery (scenario 2)	2.46	kg
Energy recovery (scenario 3)	1.56	kg
Recycling (scenario 3)	0.9	kg

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

Recovery or recycling potentials due to the three end of life scenarios (module C) are indicated separately.

Recycling in the cement industry (scenario 3) The organic material of the carpet is used as an alternative fuel in a cement kiln. It mainly substitutes for lignite (68.8 %), hard coal (23.6 %) and petrol coke (7.6 %). The inorganic material is substantially integrated into the cement clinker and substitutes for original material input *VDZ* e.V.



LCA: Results

The modules C3/1, C4/2 and C4/3 cause no additional impact (see chapter "LCA: Calculation rules"). Module C2 represents the transport for scenarios 1, 2 and 3. The values in column D result from module A5.

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PER PER PENF PENF	E M T RE RM RT	Unit Image: Marcology	5.74E+1 5.70E-2 5.75E+1 5.70E+1 5.70E+1 9.83E+0 7.68E+1	1.13E-1 0.00E+0 1.13E-1 1.99E+0 0.00E+0 1.99E+0	5.27E+0 -5.70E-2 5.21E+0 7.84E+0 -5.59E-1 7.28E+0	0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0	3.69E+0 0.00E+0 3.69E+0 5.90E+0 0.00E+0 5.90E+0	0.00E+ 0.00E+ 0.00E+ 0.00E+ 0.00E+ 0.00E+	C2 0 6.33E- 0 0.00E+ 0 6.33E- 0 1.12E- 0 0.00E+ 0 1.12E-	C3/2 3 2.90E 0 0.00E 3 2.90E 1 1.12E 0 -9.27E 1 1.92E	2 C: -1 4.33 +0 0.00 -1 4.33 +1 1.17 +0 -9.23 +0 2.42	3/3 C 3E-1 2.0 5E+0 0.0 3E-1 2.0 5E+1 2.4 7E+0 0.0 2E+0 2.4	03E-1 -2 0E+0 0 03E-1 -2 8E+0 -2 0E+0 0 8E+0 -2	2.86E-1 0.00E+0 2.86E-1 1.05E+0 0.00E+0 1.05E+0	D/1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0	D/2 -2.17E+0 0.00E+0 -2.17E+0 -8.05E+0 0.00E+0 -8.05E+0	D/3 -2.58E-1 0.00E+0 -2.58E-1 -9.50E+0 0.00E+0 -9.50E+0												
PER PER PENF PENF PENF SM	E ////////////////////////////////////	Unit Image: Margin (M) Image:	5.74E+1 5.70E-2 5.75E+1 5.70E+1 5.70E+1 9.83E+0 7.68E+1 1.28E+0	1.13E-1 0.00E+0 1.13E-1 1.99E+0 0.00E+0 1.99E+0 0.00E+0	5.27E+0 -5.70E-2 5.21E+0 7.84E+0 -5.59E-1 7.28E+0 1.15E-1	0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0	3.69E+0 0.00E+0 3.69E+0 5.90E+0 0.00E+0 5.90E+0 0.00E+0	0.00E+1 0.00E+1 0.00E+1 0.00E+1 0.00E+1 0.00E+1 0.00E+1 0.00E+1	C2 0 6.33E- 0 0.00E+ 0 6.33E- 0 1.12E- 0 0.00E+ 0 1.12E- 0 0.00E+	C3/2 3 2.90E 0 0.00E 3 2.90E 1 1.12E 0 -9.27E 1 1.92E 0 0.00E	2 C: -1 4.33 +0 0.00 -1 4.33 +1 1.17 +0 -9.27 +0 2.42 +0 0.00	3/3 C 3E-1 2.0 5E+0 0.0 3E-1 2.0 5E+1 2.4 7E+0 0.0 5E+0 2.4 5E+0 0.0	03E-1 -2 0E+0 0 03E-1 -2 8E+0 -1 0E+0 0 8E+0 -1 0E+0 0	2.86E-1 0.00E+0 2.86E-1 1.05E+0 0.00E+0 1.05E+0 0.00E+0	D/1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0	D/2 -2.17E+0 0.00E+0 -2.17E+0 -8.05E+0 0.00E+0 -8.05E+0 0.00E+0	D/3 -2.58E-1 0.00E+0 -2.58E-1 -9.50E+0 0.00E+0 -9.50E+0 5.30E-1												
PERI PER PENF PENF SM RSF NRS	E M T RE RM RT F	Unit [MJ] 4 [MJ] 4 [MJ] 4 [MJ] 9 [MJ] 9 [MJ] 1 [Kg] 1 [MJ] 0 [MJ] 0	5.74E+1 5.70E-2 5.75E+1 5.70E+1 5.70E+1 9.83E+0 7.68E+1 1.28E+0 0.00E+0 0.00E+0	1.13E-1 0.00E+0 1.13E-1 1.99E+0 0.00E+0 1.99E+0 0.00E+0 0.00E+0 0.00E+0	5.27E+0 -5.70E-2 5.21E+0 7.84E+0 -5.59E-1 7.28E+0 1.15E-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 0.00E+0 0.00E+0 0.00E+0	3.69E+0 0.00E+0 3.69E+0 5.90E+0 0.00E+0 5.90E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0	0.00E+1 0.00E+1 0.00E+1 0.00E+1 0.00E+1 0.00E+1 0.00E+1 0.00E+1 0.00E+1 0.00E+1	C2 0 6.33E- 0 0.00E+ 0 6.33E- 0 1.12E- 0 0.00E+ 0 0.00E+ 0 0.00E+ 0 0.00E+	C3/2 3 2.90E 0 0.00E 3 2.90E 1 1.12E 0 -9.27E 1 1.92E 0 0.00E 0 0.00E 0 0.00E	2 C: -1 4.33 +0 0.00 -1 4.33 +1 1.17 +0 -9.27 +0 2.42 +0 0.00 +0 0.00 +0 0.00	3/3 C BE-1 2.0 E+0 0.0 BE-1 2.0 E+1 2.4 7E+0 0.0 E+0 2.4 E+0 0.0 E+0 0.0 E+0 0.0 E+0 0.0 E+0 0.0	03E-1 -2 0E+0 0 03E-1 -2 8E+0 -1 0E+0 0 8E+0 -1 0E+0 0 0E+0 0 0E+0 0	2.86E-1 0.00E+0 2.86E-1 1.05E+0 1.05E+0 1.05E+0 0.00E+0 0.00E+0 0.00E+0	D/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 0.00E+0	D/2 -2.17E+0 0.00E+0 -2.17E+0 -8.05E+0 0.00E+0 -8.05E+0 0.00E+0 0.00E+0 0.00E+0	D/3 -2.58E-1 0.00E+0 -2.58E-1 -9.50E+0 0.00E+0 -9.50E+0 5.30E-1 0.00E+0 0.00E+0												
PERI PER PENF PENF SM RSF	E M T RE RM RT F	Unit [MJ] 4	5.74E+1 5.70E-2 5.75E+1 5.70E+1 5.70E+1 5.83E+0 7.68E+1 1.28E+0 0.00E+0 0.00E+0 1.64E-1	1.13E-1 0.00E+0 1.13E-1 1.99E+0 0.00E+0 1.99E+0 0.00E+0 0.00E+0 0.00E+0 1.27E-4	5.27E+0 -5.70E-2 5.21E+0 7.84E+0 -5.59E-1 7.28E+0 1.15E-1 0.00E+0 1.59E-2	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	3.69E+0 0.00E+0 3.69E+0 5.90E+0 0.00E+0 5.90E+0 0.00E+0 0.00E+0 3.34E-3	0.00E++ 0.00E++ 0.00E++ 0.00E++ 0.00E++ 0.00E++ 0.00E++ 0.00E++ 0.00E++ 0.00E++ 0.00E++	C2 0 6.33E- 0 0.00E+ 0 6.33E- 0 1.12E- 0 0.00E+ 0 0.00E+ 0.	C3/2 3 2.90E 0 0.00E 3 2.90E 1 1.12E 0 -9.27E 1 1.92E 0 0.00E 0 0.00E 0 0.00E 0 0.00E 0 0.00E 0 1.15E	2 C: 1 4.33 +0 0.00 1 4.33 +1 1.17 +0 9.27 +0 2.42 +0 0.00 +0 0.00 +0 0.00 +0 0.00 +0 0.00	3/3 C 3E-1 2.0 E+0 0.0 3E-1 2.0 E+1 2.4 7E+0 0.0 E+0 2.4 E+0 0.0 E+0 2.5	33E-1 -2 0E+0 0 33E-1 -2 38E+0 -1 0E+0 0 88E+0 -1 0E+0 0 0E+0 0 0E+0 0 0E+0 0 0E+0 0 0E+0 0 00E+0 0 00E+0 0	2.86E-1 0.00E+0 2.86E-1 1.05E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0	D/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 0.00E+0 0.00E+0	D/2 -2.17E+0 0.00E+0 -2.17E+0 -8.05E+0 0.00E+0 0.00E+0 0.00E+0 -2.08E-3	D/3 -2.58E-1 0.00E+0 -2.58E-1 -9.50E+0 0.00E+0 5.30E-1 0.00E+0 0.00E+0 -1.00E-3												
PERI PER PENF PENF SM RSF NRS	E	Unit [MJ] 1	5.74E+1 5.70E-2 5.75E+1 5.70E+1 9.83E+0 7.68E+1 1.28E+0 9.00E+0 1.00E+0 1.64E-1 Use of rorimary e	1.13E-1 0.00E+0 1.13E-1 1.99E+0 0.00E+0 1.99E+0 0.00E+0 0.00E+0 0.00E+0 1.27E-4 enewable nergy res	5.27E+0 -5.70E-2 5.21E+0 7.84E+0 -5.59E-1 7.28E+0 1.15E-1 0.00E+0 0.00E+0 1.59E-2 e primary sources to	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 0.00E+0 v energy used as r	3.69E+0 0.00E+0 3.69E+0 5.90E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 3.34E-3 excluding aw mate	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++	C2 0 6.33E- 0 0.00E+ 0 6.33E- 0 1.12E- 0 0.00E+ 0 1.12E- 0 0.00E+ 0 0.00E+ 0 0.00E+ 0 0.00E+ 0 0.00E+ 0 0.00E+ 1 0 0.00E+ 0 0.00E+	C3/2 3 2.90E 0 0.00E 3 2.90E 1 1.12E 0 -9.27E 1 1.92E 0 0.00E 0 0.00E 0 0.00E 1 1.5E ary ener aru use c	2 C: -1 4.33 +0 0.00 -1 4.33 +1 1.17 +0 9.22 +0 2.42 +0 0.00 +0 0.00 +0 0.00 -2 1.17 rgy resc of renew	3/3 C 3E-1 2.0 E+0 0.0 BE-1 2.0 E+1 2.4 TE+0 0.0 E+0 0.0 F+0	03E-1 00E+0 00 03E-1 8E+0 00E+0 00 08E+0 - 00E+0 00 00E+0 00 00E+0 00 00E+0 00 00E+0 00 sed as mary ei	2.86E-1 1.00E+0 2.86E-1 1.05E+0 1.05E+0 1.05E+0 1.00E+0 1.00E+0 2.73E-4 raw matheregy res	D/1 0.00E+0	D/2 -2.17E+0 0.00E+0 -2.17E+0 -8.05E+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 ERM = U PENRE	D/3 -2.58E-1 0.00E+0 -2.58E-1 9.50E+0 0.00E+0 5.30E-1 0.00E+0 -1.00E-3 se of = Use of												
PERI PER PENF PENF SM RSF NRS		Unit [MJ] { [MJ] { [M] {[M] {[M] {[M] {[M] {[M] {[M] {[M] {	5.74E+1 5.70E-2 5.75E+1 5.70E+1 5.70E+1 9.83E+0 7.68E+1 1.28E+0 0.00E+0 1.64E-1 Use of re- rimary e ewable p	1.13E-1 0.00E+0 1.13E-1 1.99E+0 0.00E+0 1.99E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.27E-4 enewable nergy res rimary er	5.27E+0 -5.70E-2 5.21E+0 7.84E+0 -5.59E-1 7.28E+0 1.15E-1 0.00E+0 0.00E+0 0.00E+0 1.59E-2 e primary sources the regy external constraints of the second seco	0.00E+0 0.00E+	3.69E+0 0.00E+0 3.69E+0 5.90E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 3.34E-3 excluding aw mate on-renev	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++	C2 0 6.33E- 0 0.00E+ 0 6.33E- 0 1.12E- 0 1.12E- 0 0.00E+ 0 1.12E- 0 0.00E+ 0 0.00E+ 0.	C3/2 3 2.90E 0 0.00E 3 2.90E 1 1.12E 0 9.27E 1 1.92E 0 0.00E 0 0.00E 0 0.00E 5 1.15E ary ener cal use cergy reso	2 C: -1 4.3: +0 0.00 -1 4.3: +1 1.17 +0 9.2: +0 2.42 +0 0.00 +0 0.00 +0 0.00 -2 1.17 gy reso of renew ources	3/3 C 3E-1 2.0 E+0 0.0 3E-1 2.0 E+1 2.4 FE+0 0.0 E+0 0.0 E+0 0.0 E+0 0.0 E+0 0.0 E+0 2.4 DE+0 0.0 E+2 2.5 DUTCES U vable pri)3E-1	2.86E-1 1.00E+0 2.86E-1 1.05E+0 1.05E+0 1.05E+0 1.00E+0 1.00E+0 2.73E-4 raw mathering re- aterials;	D/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 0.00E+0 0.00E+0 0.00E+0 erials; P sources; PENRM	D/2 -2.17E+0 0.00E+0 -2.17E+0 -8.05E+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 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -2.17E+0 0.00E+0 -2.17E+0 0.00E+0 -2.17E+0 0.00E+0 -2.17E+0 0.00E+0 -2.17E+0 0.00E+0 -2.17E+0 0.00E+0 -2.17E+0 0.00E+0 -2.17E+0 0.00E+0 -2.17E+0 0.00E+0 -2.17E+0 0.00E+0 -2.17E+0 0.00E+0 -2.17E+0 0.00E+0 -2.17E+0 0.00E+0 -2.17E+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 -0.00E+0 -0.00E+0 -0.00E+0 0.00E+0 0.00E+0 -0.00E+0 00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+	D/3 -2.58E-1 0.00E+0 -2.58E-1 -9.50E+0 5.30E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.00E-3 se of = Use of non-												
PERI PENF PENF PENF SM RSF NRS FW	E M T RE RM RT F F ren ren	Unit [MJ] 4 [MJ] 7 [MJ] 7 [M] 7	5.74E+1 5.70E+2 5.75E+1 3.70E+1 9.83E+0 7.68E+1 1.28E+0 0.00E+0 1.64E-1 Use of re- rimary e- ewable p- porimary e-	1.13E-1 0.00E+0 1.13E-1 1.99E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.27E-4 enewable nergy res rimary energy res	5.27E+0 -5.70E-2 5.21E+0 7.84E+0 -5.59E-1 7.28E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.59E-2 e primary sources bergy exis	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 0.00E+0 section as in section as i	3.69E+0 0.00E+0 3.69E+0 5.90E+0 0.00E+0 5.90E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 3.34E-3 aw mate on-renew	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++	C2 0 6.33E- 0 0.00E+ 0 6.33E- 0 1.12E- 0 0.00E+ 0 1.12E- 0 0.00E+ 0 0.00E+ 0 0.00E+ 0 0.00E+ 0 0.00E+ 1.12E- 1.12	C3/2 3 2.90E 0 0.00E 3 2.90E 1 1.12E 0 0.00E 1 1.92E 0 0.00E 0 0.00E 0 0.00E 0 0.00E 3 1.15E ary enertial use of orgy ress otal use	2 C: -1 4.33 +0 0.00 -1 4.33 +1 1.17 +0 -9.22 +0 2.42 +0 0.00 +0 0.00 -2 1.11 rgy resc of renew ources of non	3/3 C 3E-1 2.0 E+0 0.0 SE-1 2.0 E+1 2.4 E+0 0.0 E+1 2.4 E+0 0.0 F+0 0.0 F+0 0.0 Yable pri yable pri used as -renewa	33E-1 0E+0 0 33E-1 8E+0 0E+0 0 8E+0 0E+0 0 8E+0 - 0E+0 0 0E+0 0 <td>2.86E-1 1.00E+0 2.86E-1 1.05E+0 1.05E+0 1.00E+0 1.00E+0 1.00E+0 1.00E+0 1.00E+0 2.73E-4 raw matterials; Inary energy researched</td> <td>D/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 0.00E+0 erials; P sources; PENRM ergy reso</td> <td>D/2 -2.17E+0 0.00E+0 -2.17E+0 -8.05E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 ERM = USE ERM = USE of</td> <td>D/3 -2.58E-1 0.00E+0 -2.58E-1 -9.50E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 se of = Use of non- M = Use</td>	2.86E-1 1.00E+0 2.86E-1 1.05E+0 1.05E+0 1.00E+0 1.00E+0 1.00E+0 1.00E+0 1.00E+0 2.73E-4 raw matterials; Inary energy researched	D/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 0.00E+0 erials; P sources; PENRM ergy reso	D/2 -2.17E+0 0.00E+0 -2.17E+0 -8.05E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 ERM = USE ERM = USE of	D/3 -2.58E-1 0.00E+0 -2.58E-1 -9.50E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 se of = Use of non- M = Use												
PERI PERF PENF PENF SM RSF NRS FW Captio	E M T RE RM RT F F ren of s	Unit [MJ] 4 [MJ] 7 [MJ] 7 [5.74E+1 5.70E-2 5.75E+1 5.70E+1 5.70E+1 5.70E+1 5.70E+1 1.28E+0 7.68E+1 1.28E+0 0.00E+0 1.64E-1 Use of re- rimary e swable p orimary e swable p orimary e swable p orimary e	1.13E-1 0.00E+0 1.13E-1 1.99E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.27E-4 enewable nergy res rimary energy res	5.27E+0 -5.70E-2 5.21E+0 -5.59E-1 7.84E+0 -5.59E-1 7.28E+0 1.15E-1 0.00E+0 0.00E+0 1.59E-2 e primary sources to hergy exis	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 0.00E+0 0.00E+0 0.00E+0 v energy used as r cluding n used as r	3.69E+0 0.00E+0 3.69E+0 5.90E+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 av mate	0.00E++ 0.0	C2 0 6.33E- 0 0.00E+ 0 0.00E+ 0 6.33E- 0 1.12E- 0 0.00E+ 0 0.00E+ 0 0.00E+ 0 0.00E+ 0 0.00E+ 0 0.00E+ 1.12E- 0 0.00E+ 0 0.00E+ 1.12E- 0 0.00E+ 0 0.00E+ 0 0.11E- 0 0.00E+ 0 0.00	C3/2 3 2.90E 0 0.00E 3 2.90E 1 1.12E 0 -9.27E 1 1.92E 0 0.00E 0 0.00E 0 0.00E 0 0.00E 3 1.15E ary ener ary ener	2 C: -1 4.3: +0 0.00 -1 4.3: +1 1.17 +0 -9.2: +0 2.42 +0 0.00 +0 0.00 +0 0.00 -2 1.11 'gy resc of renew ources o of non-re	3/3 C 3E-1 2.0 E+0 0.0 BE-1 2.0 E+1 2.4 ZE+0 0.0 E+0 0.0 E+0 0.0 E+0 0.0 E+0 0.0 E+0 0.0 FE+0 0.0	33E-1 -7 00E+0 00 33E-1 -7 03E-1 -7 00E+0 00 00E+5 -7 seed as mary en raw mark ble print e secord secord	2.86E-1 2.86E-1 1.05E+0 1.05E+0 1.05E+0 1.05E+0 1.00E+0 1.00E+0 1.00E+0 1.00E+0 2.73E-4 raw mathematic states in the state in the states in the s	D/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 0.00E+0 0.00E+0 0.00E+0 erials; P sources; PENRM ergy ress; els; FW =	D/2 -2.17E+0 0.00E+0 -2.17E+0 0.00E+0 -8.05E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -2.08E-3 ERM = U PENRE = Use of r	D/3 -2.58E-1 0.00E+0 -2.58E-1 -9.50E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 se of = Use of non- M = Use												
PERI PERF PENF PENF SM RSF NRS FW Captio	E M M RE RT F F F ILTS	Unit [MJ] 4 [MJ] 4 [MJ] 4 [MJ] 4 [MJ] 6 [MJ] 6 [MJ] 6 [MJ] 6 [MJ] 6 [MJ] 6 [MJ] 7 [MJ] 7 [5.74E+1 5.70E-2 5.75E+1 3.70E+1 9.83E+0 7.68E+1 1.28E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.64E-1 Use of running e wable p primary e wable p trimary e	1.13E-1 0.00E+0 1.13E-1 1.99E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.27E-4 enewable nergy res rimary er inergy res rimary er	5.27E+0 5.27E+0 5.70E-2 5.21E+0 7.84E+0 -5.59E-1 7.28E+0 1.15E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.59E-2 e primary sources - Use of f	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 0.00E+0 0.00E+0 x energy used as r cluding n used as r church a set as the set of the	3.69E+0 0.00E+0 3.69E+0 5.90E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 3.34E-3 a.34E-3 a.34E-3 a.34E-3 concerver aw mate e second	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++	C2 0 6.33E- 0 0.00E+ 0 6.33E- 0 0.00E+ 0 1.12E- 0 0.00E+ 0 0.00E+ 0.	C3/2 3 2.90E 0 0.00E 3 2.90E 1 1.12E 0 0.00E 1 1.92E 0 0.00E 0 0.00E 0 0.00E 3 1.15E ary eneral use cergy resortal use cergy resortal use of UT FL	2 C: -1 4.3: +0 0.00 -1 4.3: +1 1.17 +0 9.2: +0 2.42 +0 0.00 +0 0.00 +0 0.00 -2 1.11 rogy resc of renew ources of non-ro	3/3 C 3E-1 2.0 E+0 0.0 3E-1 2.0 E+1 2.4 TE+0 0.0 E+0 2.4 E+0 0.0 E+0 2.4 E+0 0.0 FE-2 2.5 Ources used as -renewa enewable accorr accorr	33E-1 -2 03E-1 -2 33E-1 -2 8E+0 -7 0E+0 0 8E+0 -7 0E+0 0 0DE+5 -2 seed as mary ell raw ma ble print e secor - 'ding -	2.86E-1 1.00E+0 2.86E-1 1.05E+0 1.05E+0 1.05E+0 1.00E+0 1.00E+0 2.00E+0 1.00E+0 2.73E-4 raw mat nergy re- aterials; I nary ene dary fue	D/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 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.00E+0 1.00E+0 PENRM argy resc els; FW =	D/2 -2.17E+0 0.00E+0 -2.17E+0 -8.05E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -2.08E-3 ERM = USe of surces; S = Use of r +A2:	D/3 -2.58E-1 0.00E+0 -2.58E-1 9.50E+0 5.30E+1 0.00E+0 0.00E+0 0.00E+0 1.00E-3 se of = Use of non- M = Use het fresh												
PERI PENF PENF PENF SM RSF NRS FW Caption RESU 1 m ² 1 Indica	E M M T RE RE R T F F F C T T T T T T T T T T T T T T T	Unit [MJ] 4 [MJ] 4 [MJ] 6 [MJ] 6 [MJ] 7 [MJ] 7 [5.74E+1 5.70E-2 5.75E+1 3.70E+1 9.83E+0 7.68E+1 1.28E+0 0.00E+0 0.000E+0 1.64E-1 Use of ru rimary e swable p orimary e swable p orimary e swable p orimary e swable p orimary e swable p orimary e swable p orimary e	1.13E-1 0.00E+0 1.13E-1 1.99E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.27E-4 enewable nergy res rimary energy res al; RSF =	5.27E+0 5.70E-2 5.70E-2 5.21E+0 7.84E+0 -5.59E-1 7.28E+0 1.15E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.59E-2 e primary sources Use of i ASTE (A5	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 0.00E+0 0.00E+0 0.00E+0 0.00E+0 Energy used as r chuing n used as r chuing n used as renewable CATEG	3.69E+0 0.00E+0 3.69E+0 5.90E+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 3.34E-3 excluding aw mate e second ORIES	0.00E++ 0.0	C2 0 6.33E- 0 0.00E+ 0 6.33E- 0 0.00E+ 0 1.12E- 0 0.00E+ 0 0.00E+ 0 0.00E+ 0 0.00E+ 0 7.15E- mary energy energ	C3/2 3 2.90E 0 0.00E 3 2.90E 1 1.12E 0 -9.27E 1 1.92E 0 0.00E 0 0.00E 5 1.15E ary ener ary ener cotal use corgy rescortal use corgy rescortal use UT FL C3/2	2 C: -1 4.33 +0 0.00 -1 4.33 +1 4.37 +0 9.27 +0 2.42 +0 0.00 +0 0.00 +0 0.00 -2 1.17 -2 1.1	3/3 C 3E-1 2.0 E+0 0.0 3E-1 2.0 E+1 2.4 TE+0 0.0 E+0 2.4 E+0 0.0 B 0.0 E+0 0.0 E+0 0.0 B 0.0	33E-1 -2 0E+0 0 33E-1 -2 8E+0 -7 0E+0 0 88E+0 -7 00E+0 0 00E+0 0 00E+0 0 00E+0 0 00E+5 -2 sed as mary er raw ma ble prin e secor	2.86E-1 1.00E+0 2.86E-1 1.05E+0 1.05E+0 1.05E+0 1.00E+0 1.00E+0 2.73E-4 raw mather the ray reaction of the second 2.73E-4 raw mather the ray reaction of the second 2.73E-4 raw mather the second of the second of	D/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 0.00E+0 0.00E+0 erials; P ENRM erials; FW = 15804 D/1	D/2 -2.17E+0 0.00E+0 -2.17E+0 0.00E+0 -8.05E+0 0.00E+0 0.00E+0 0.00E+0 -2.08E-3 ERM = U PENRE = Use of r +A2: D/2	D/3 -2.58E-1 0.00E+0 -2.58E-1 9.50E+0 0.00E+0 5.30E-1 0.00E+0 1.00E-3 se of = Use of non- M = Use het fresh												
PERI PENF PENF PENF SM RSF NRS FW Captio	RE RE RE RE RT RE F F F renu of s ULTS floor tor D	Unit [MJ] 4 [MJ] 7 [MJ] 6 [MJ] 7 [MJ] 7 [5.74E+1 5.70E-2 5.75E+1 3.70E+1 9.83E+0 7.68E+1 1.28E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.64E-1 Use of running wable p orimary e wable p orimary e wable p orimary e y materia 1E LC/ ing A1-A3 3.08E-3 5.69E-1	1.13E-1 0.00E+0 1.13E-1 1.99E+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 1.27E-4 enewable nergy res rimary er inary e	5.27E+0 5.70E+2 5.70E+2 5.71E+0 7.84E+0 -5.59E-1 7.28E+0 1.15E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.59E-2 e primary sources tuse of r ASTE C ASTE C AS 2.77E-4 8.95E-2	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 0.00E+0 0.00E+0 CATEG B1 0.00E+0 0.00E+0	3.69E+0 0.00E+0 3.69E+0 5.90E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 3.34E-3 a.34E-3 excluding aw mate e second ORIES B2 4.19E-5 7.30E-3	0.00E+1 0.0	C2 0 6.33E-: 0 0.00E+ 0 6.33E-: 0 0.00E+ 0 1.12E-: 0 0.00E+ 0 1.12E-: 0 0.00E+ 0 0.00E+ 0 0.00E+ 0 7.15E-: able prim RT = To SNRT = T s; NRSF water OUTP C2 0 0 1.60E-:	C3/2 3 2.90E 0 0.00E 3 2.90E 1 1.12E 0 0.00E 1 1.92E 0 0.00E 0 0.00E 0 0.00E 3 1.15E ary eneral use of ergy resolution of the original use of ergy resolution of the original use	2 C: -1 4.3: +0 0.00: -1 4.3: +1 1.17 +0 9.2: +0 2.42 +0 0.00: +0 0.00: +0 0.00: +0 0.00: +0 0.00: -2 1.11: rgy resc of renew of renew ources of non-re of non-re .0 VS 2 C: 10 3.28 -1 4.22	3/3 C 3E-1 2.0 E+0 0.0 3E-1 2.0 E+1 2.4 TE+0 0.0 E+0 2.4 TE+0 0.0 E+0 2.4 E+0 0.0 E+0 0.0 E+0 0.0 E+0 0.0 E+0 0.0 E+0 0.0 FE-0 0.0 accorr as accorr 3/3 C 3.8 E-1 2.4	33E-1 -2 03E-1 -2 38E+0 -7 0E+0 0 8E+0 -7 0E+0 0 00E+0 0 seed as seed as rding - 24/1 - 25+0 -	2.86E-1 1.00E+0 2.86E-1 1.05E+0 1.05E+0 1.05E+0 1.00E+0 1.00E+0 2.73E-4 1.00E+0 2.73E-4 1.00E+0 2.73E-4 1.00E+0 2.73E-4 1.00E+0 1.00E+	D/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 0.00E+0 0.00E+0 15804 D/1 0.00E+0 0.00E+0 0.00E+0	D/2 -2.17E+0 0.00E+0 -2.17E+0 -8.05E+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 0.00E+0 0.00E+0 -2.08E-3 ERM = Use of r +A2: D/2 -1.10E-9 -4.03E-3	D/3 -2.58E-1 0.00E+0 -2.58E-1 -9.50E+0 5.30E-1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -1.00E-3 se of non- M = Use of non- M = Use tresh D/3 -1.95E-10 -1.35E-1												
PERI PENF PENF SM RSF NRS FW Caption RESU 1 m ² 1 Indica HWU NHW RWU	E M T RE RT RT RT RT RT RT RT RT RT RT RT RT RT	Unit [MJ] 4 [MJ] 7 [MJ] 7 [5.74E+1 5.70E-2 5.75E+1 5.70E+1 3.70E+1 3.83E+0 7.68E+1 1.28E+0 0.00E+0 1.64E-1 Use of re- rimary e wable por inary e wable por inary e y material 1E LC ing A1-A3 3.08E-3 5.69E-1 1.69E-3	1.13E-1 0.00E+0 1.13E-1 1.99E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 1.27E-4 enewable nergy res- rimary er- nergy res- rimary er- rimary er- nergy res- rimary er- rimary er- rimar	5.27E+0 5.27E+0 5.70E-2 5.21E+0 7.84E+0 5.59E-1 7.28E+0 1.15E-1 0.00E+0 0.00E+0 0.00E+0 1.59E-2 9 primary sources sources sources 1.58E-4 2.77E-4 8.95E-2 1.58E-4	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 0.00E+0 0.00E+0 2.20E 2.20E 81 0.00E+0	3.69E+0 0.00E+0 3.69E+0 5.90E+0 0.00E+0 5.90E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 3.34E-3 excluding aw mate on-renew raw mate e second ORIES B2 4.19E-5 7.30E-3 3.76E-4	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++ C1 0.00E+++ 0.00E+++ 0.00E+++ 0.00E+++ 0.00E+++ 0.00E+++ 0.00E+++ 0	C2 0 6.33E- 0 0.00E+ 0 6.33E- 0 1.12E- 0 0.00E+ 0 1.12E- 0 0.00E+ 0 0.00E+ 0 0.00E+ 0 0.00E+ 0 7.15E- able prim RT = TO RT = TO mary end NRT = TS; NRSF water OUTP C2 0 5.34E-1 0 1.60E- 0 1.60E- 0 1.37E-	C3/2 3 2.90E 0 0.00E 3 2.90E 1 1.12E 0 0.00E 1 1.92E 0 0.00E 0 0.00E 0 0.00E 3 1.15E ary energy reservations all use of the original use of	2 C: -1 4.3: +0 0.00: -1 4.3: +1 1.7: +0 9.2: +0 0.00: +0 0.00: +0 0.00: +0 0.00: +0 0.00: -2 1.1: ''gy resc of renews of ron-res of non-res > of non-res -0 0.2: -0 3.28: -1 4.22: -5 1.00:	3/3 C 3E-1 2.0 E+0 0.0 3E-1 2.0 E+1 2.4 TE+0 0.0 E+0 2.4 TE+0 0.0 E+0 2.4 E+0 0.0 E+0 0.0 E+0 0.0 E+0 0.0 E+0 0.0 E+0 0.0 C 2.5 purces u vable pri used as -renewable accorr 3/3 C E-10 StE-1 2.4 DE-1 2.4	33E-1 -2 0E+0 0 33E-1 -2 0E+0 0 38E+0 -7 0E+0 0 0E+0 <td>2.86E-1 1.00E+0 2.86E-1 1.05E+0 1.05E+0 1.00E+0 1.0</td> <td>D/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 0.00E+0 0.00E+0 15804 D/1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0</td> <td>D/2 -2.17E+0 0.00E+0 -2.17E+0 -8.05E+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 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -2.08E-3 Use of r +A2: D/2 -1.10E-9 -4.03E-3 -6.23E-4</td> <td>D/3 -2.58E-1 0.00E+0 -2.58E-1 -9.50E+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 0.00E+0 1.00E-3 se of = Use of non- M = Use het fresh D/3 -1.95E-10 -1.35E-1 -5.83E-5</td>	2.86E-1 1.00E+0 2.86E-1 1.05E+0 1.05E+0 1.00E+0 1.0	D/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 0.00E+0 0.00E+0 15804 D/1 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0	D/2 -2.17E+0 0.00E+0 -2.17E+0 -8.05E+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 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 -2.08E-3 Use of r +A2: D/2 -1.10E-9 -4.03E-3 -6.23E-4	D/3 -2.58E-1 0.00E+0 -2.58E-1 -9.50E+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 0.00E+0 1.00E-3 se of = Use of non- M = Use het fresh D/3 -1.95E-10 -1.35E-1 -5.83E-5												
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RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional: m² floor covering															
Indicator	Unit	A1-A3	A4	A5	B1	B2	C1	C2	C3/2	C3/3	C4/1	D	D/1	D/2	D/3
PM	[Disease Incidence]	1.20E-7	5.10E-9	1.27E-8	0.00E+0	6.84E-8	0.00E+0	2.86E-10	1.50E-8	1.59E-8	4.97E-9	-6.69E- 10	0.00E+0	0.00E+0	-1.47E-8
IRP	[kBq U235- Eq.]	2.85E-1	3.58E-4	2.66E-2	0.00E+0	6.78E-2	0.00E+0	2.01E-5	9.68E-3	1.59E-2	4.49E-3	-1.39E-2	0.00E+0	0.00E+0	-8.02E-3
ETP-fw	[CTUe]	3.62E+1	1.38E+0	3.46E+0	3.60E-3	2.69E+0	0.00E+0	7.73E-2	7.75E-1	1.07E+0	2.42E+0	-2.28E-1	0.00E+0	0.00E+0	-2.22E+0
HTP-c	[CTUh]	2.49E-9	2.78E-11	2.31E-10	0.00E+0	6.21E-10	0.00E+0	1.56E-12	4.32E-11	5.00E-11	1.09E-10	-1.06E- 11	0.00E+0	0.00E+0	-4.69E- 11
HTP-nc	[CTUh]	9.14E-8	1.65E-9	8.59E-9	2.60E-11	9.46E-9	0.00E+0	9.26E-11	2.25E-9	2.59E-9	9.11E-9	-4.06E- 10	0.00E+0	0.00E+0	-3.25E-9
SQP	[-]	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PI	M = Potenti	al incider	ice of dis	ease due	to PM e		; IR = Po			posure ef	,		U235; E	TP-fw =	Potential

Caption comparative Toxic Unit for ecosystems; HTP-c = Potential comparative Toxic Unit for humans (cancerogenic); HTP-nc = Potential comparative Toxic Unit for humans (ancerogenic); SQP = Potential soil quality index

The SQP indicator is not given due to considerable uncertainties in the calculation. The result figures given in module B2 refer to a period of 1 year because a reference service life is not declared. They have to be multiplied by the assumed service life (in years) of the floor covering in the building under consideration.

Disclaimer 1 - for the indicator "Potential Human exposure efficiency relative to U235".

This impact category deals mainly with the eventual impact of low dose ionizingradiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in undergroundfacilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators "abiotic depletion potential for non-fossil resources", "abiotic depletion potential for fossil resources", "water (user) deprivation potential, deprivation-weighted water consumption", "potential comparative toxic unit for ecosystems", "potential comparative toxic unit for humans – cancerogenic", "Potential comparative toxic unit for humans - not cancerogenic", "potential soil quality index".

The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

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