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ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804

Owner of the Declaration	modulyss®
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-MOD-20150329-CBC1-EN
Issue date	1-2-2016
Valid to	31-1-2021

Tufted carpet tiles with a maximum pile weight of 800 g/m², pile material 100% recycled polyamide 6 solution dyed, bitumen based backing

modulyss®



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





General Information

modulyss®

Programme holder

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

Declaration number

EPD-MOD-20150329-CBC1-EN

This Declaration is based on the Product Category Rules: Floor coverings, 07.2014 (PCR tested and approved by the SVR)

Issue date

1-2-2016

Valid to 31-1-2021

Wiemanes

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

Mann

Dr. Burkhart Lehmann (Managing Director IBU)

Product

Product description

Tufted carpet tiles having a surface pile of 100% recycled polyamide 6, solution dyed, a primary backing with recycled content and a bitumen based heavy backing with recycled filler. Recycled filler includes recycled limestone and recycled production waste ,B2B' (see more information on the website www.modulyss.com/en/csr/back2back/).

The declaration applies to a group of products with a maximum pile weight of 800 g/m². Specific LCA results of products having a lower total pile weight can be taken from the corresponding tables of the annex or can be calculated in relation to the total pile weight of the product.

Tufted carpet tiles

max. pile weight 800 g/m², pile material 100% recycled PA 6 solution dyed, bitumen based backing

Owner of the Declaration

modulyss Zevensterrestraat 21 9240 Zele Belgium

Declared product / Declared unit

1 m² tufted carpet tiles with a surface pile of recycled solution dyed PA 6 and a bitumen based backing.

Scope:

The manufacturer declaration applies to a group of similar products with a maximum pile weight of 800 g/m².

The products are manufactured in the modulyss production site Zele, Belgium.

Specific LCA results of products having a lower total pile weight can be taken from the corresponding tables of the annex or can be calculated in relation to the total pile weight. The result tables of the annex refer to categories of total pile weights in steps of 100 g/m².

The declaration is only valid in conjunction with a valid GUT/PRODIS licence 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.

Verification

The CEN Norm /EN 15804/ serves as the core PCR

Independent verification of the declaration

х

externally

according to /ISO 14025/

internally

male

Dr. Eva Schmincke (Independent verifier appointed by SVR)

The recycled content out of total weight amount to 65.8 %.

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

Name	Value	Unit	
Product Form	Carpet tiles	-	
Type of manufacture	Tufted	-	
Vorn tuno	100% recycled PA 6,		
Yarn type	solution dyed	-	
	Bitumen based heavy		
Secondary backing	backing with recycled	-	
	filler and textile bottom		
Total pile weight	max. 800	g/m²	
Total carpet weight	max. 4800	g/m²	

Additional product properties and performance ratings according to /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.modulyss.com).

Base materials / Ancillary materials

For products with a total pile weight of max. 800 g/m ²							
Name	Value	Unit					
Polyamide 6	17.3	%					
Polyester	3.4	%					
Polypropylene	0.3	%					
Limestone	52.8	%					
Aluminiumhydroxide	6.5	%					
SBR-latex/SBS-copolymer	5.6	%					
Bitumen	13.6	%					
Glass fibre	0.2	%					
Additives	0.3	%					

For specific information on products with a total pile weight lower than 700 g/m² see annex.

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 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	0.21	m²/kg
Mass reference	4.8	kg/m²

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, 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). Credits for electricity and steam from 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, production and transport of auxiliary materials, waste processing 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.

Credits for electricity and steam from the incineration of packaging and installation waste leave the product system.

B1 Use:

Indoor emissions during the use stage. After the first year no product related 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 (see annex, chapter 'General information on use stage').

<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, C3-2: Landfill disposal and waste incineration need no waste processing.

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



C4 Disposal

C4-1, C4-2: Impact from landfill disposal or from waste incineration (credits leave the system boundaries), C4-3: The pre-processed carpet waste leaves the system and needs no disposal.

D Recycling potential:

D-A5: Energy credits from waste incineration of packaging and installation waste (processing with < 60% efficiency),

D-1, D-2: Energy credits from landfill disposal and from waste incineration of carpet waste at the end-of-life (processing with < 60% efficiency),

LCA: Scenarios and additional technical information

The following information refers to the declared modules and is 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 pile weight lower than 800 g/m². Specific information on products having a lower pile weight can be taken from the annex.

Transport to the construction site (A4)

Value	Unit
0.0079	l/100km
700	km
85	%
640	kg/m ³
-	700 85

Installation in the building (A5)

Name	Value	Unit
Auxiliary (fixing agent)	0.2	kg
Material loss	0.14	kg

Packaging waste and installation waste are considered to be incinerated in a municipal waste incineration plant.

Maintenance (B2)

Indication per m² floor covering and per year (see annex, chapter 'General Information on use stage')

Name	Value	Unit
Maintenance cycle (wet cleaning)	1.5	1/year
Maintenance cycle (vacuum cleaning)	208	1/year
Water consumption (wet cleaning)	0.004	m ³
Cleaning agent (wet cleaning)	0.09	kg
Electricity consumption	0.314	kWh

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

End of Life (C1-C4)

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

Scenario 1: 100% landfill disposal

Scenario 2: 100% municipal waste incineration (MWI) Scenario 3: 100% recycling in the cement industry D-3: Energetic and substance related credits from recovery of the carpet at the end-of-life in a cement plant (substitution of material and fuel input in the cement kiln), 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.

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)

Name	Value	Unit
Collected as mixed construction waste	4.8	ka
(scenario 1 and 2)	4.0	kg
Collected separately (scenario 3)	4.8	kg
Landfilling (scenario 1)	4.8	kg
Energy recovery (scenario 2)	4.8	kg
Energy recovery (scenario 3)	1.9	kg
Recycling (scenario 3)	2.8	kg

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

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

<u>Recycling in the cement industry (scenario 3)</u> /VDZ e.V./

The organic material of the carpet is used as secondary fuel in a cement kiln. It mainly substitutes for lignite (64.2%), hard coal (25.4%) and petrol coke (10.4%).

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



LCA: Results

The results refer to all declared products with a maximum pile weight of 800 g/m² as a worse case approach. Specific LCA results of products having a lower total pile weight can be taken from the corresponding result tables of the annex or can be calculated in relation to the total pile weight (see annex, chapter 'General Information on the annex'). The result tables of the annex refer to categories of total pile weight in steps of 100 g/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 considered (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 and C3/2 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. DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA: MND = MODULE NOT DECLARE

DESC	RIPT	ΓΙΟΝ Ο)F THE	SYS1	EM BO	JUND	ΑΚΥ (Χ			D IN L	CA; I	ND :	= MOI	DULE	NOID	ECLAF	(ED)
	ODUCT STAGE ON PROCESS USE STAGE END OF LIFE STAGE								LO	ITS AND ADS							
PROL	DUCTS	STAGE		AGE			USI	E STAGE				E	ND OF	SYS	ND THE STEM DARIES		
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment			De-construction demolition	Transport	Waste processing	Disposal	Reuse- Recoverv-	Recycling- potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4		D
Х	Х	X	X	Х	Х	Х		MNR M	INR N	IND N	/ND	MND	X	X	X		х
RESL	JLTS	OF TH	IE LCA	- EN	/IRON	MENT	AL IMF	PACT: 1	m² fl	oorco	/erin	g					
Param eter	U	Jnit	A1-A3	A4	A5	B1	B2	C2	C3/3	C4/		4/2	C4/3	D	D/1	D/2	D/3
GWP	[kg C	O ₂ -Eq.]	8.19	0.20	0.76	0.00	0.35	0.01	0.03	4.2	5	.26	0.00	-0.15	-0.15	-2.24	-0.78
ODP	[kg CF	C11-Eq.]	9.93E-8	8.25E-1	3 1.71E-8			8 4.59E-1	4 2.34E-	11 9.04E			0.00E+0	-4.84E- 11	-1.09E- 10	-7.54E- 10	-3.89E-8
AP		O ₂ -Eq.]	2.63E-2	-	-								0.00E+0	-3.80E-4			-6.48E-3
EP POCP		O ₄) ³ -Eq.] iene-Eq.]	5.67E-3 2.65E-3		I 6.09E-∕ 4 2.15E-∕	4 0.00E+ 4 1.11E-			5 8.60E 5 9.23E				0.00E+0 0.00E+0	-2.61E-5	-4.01E-5 -4.30E-5	-4.01E-4	
ADPE		Bb-Eq.]	8.72E-5					4 -1.84⊑⊰ 6 4.38E-1			-3 2.4			-3.16E-3			
ADPF		MJ]	159.00	2.76	8.28	0.00	7.03	0.15	0.35	3.1		.80	0.00	-2.07	-1.63	-31.50	-71.30
GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Caption Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources RESULTS OF THE LCA - RESOURCE USE: 1 m ² floorcovering									for non-								
RESL	JLTS	OF TH	IE LCA	- RE			,				ial for f	ossil re	sources				
RESU Parame			HE LCA A1-A3	A - RE A4			,					ossil re 1/2	C4/3	D	D/1	D/2	D/3
Parame PER	e ter	Unit [MJ]	A1-A3 23.74	A4 0.15	SOUR(A5 2.22	E US B1 0.00	E: 1 m ² B2 0.72	floorc C2 0.01	overir C3/3 0.12	g C4/1 0.21	C 2	1/2 03	C4/3 0.00	D -0.24	-0.55	-3.80	-0.35
Paramo PER PERI	eter E M	Unit [MJ]	A1-A3 23.74 0.00	A4 0.15 0.00	A5 2.22 0.00	B1 0.00 0.00	E: 1 m ² B2 0.72 0.00	floorc C2 0.01 0.00	overir C3/3 0.12 0.00	C4/1 0.21 0.00	C 2	1/2 03 00	C4/3 0.00 0.00	D -0.24 0.00	-0.55 0.00	-3.80 0.00	-0.35 0.00
Paramo PER PER	eter E M T	Unit [MJ] [MJ] [MJ]	A1-A3 23.74 0.00 23.74	A4 0.15 0.00 0.15	A5 2.22 0.00 2.22	B1 0.00 0.00 0.00	E: 1 m ² B2 0.72 0.00 0.72	floorc C2 0.01 0.00 0.01	C3/3 0.12 0.00 0.12	C4/1 0.21 0.21 0.21	0.0 0.0	1/2 03 00 03	C4/3 0.00 0.00 0.00	D -0.24 0.00 -0.24	-0.55 0.00 -0.55	-3.80 0.00 -3.80	-0.35 0.00 -0.35
Paramo PER PERI	eter	Unit [MJ] [MJ] [MJ] [MJ]	A1-A3 23.74 0.00 23.74 99.71	A4 0.15 0.00	A5 2.22 0.00	B1 0.00 0.00	E: 1 m ² B2 0.72 0.00	floorc C2 0.01 0.00	overir C3/3 0.12 0.00	C4/1 0.21 0.00	C 2	1/2 03 00 03 03 27	C4/3 0.00 0.00	D -0.24 0.00	-0.55 0.00	-3.80 0.00	-0.35 0.00 -0.35 -71.73
Parama PER PER PEN PEN PEN	eter I E I M I T I RE I RM I RT I	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ]	A1-A3 23.74 0.00 23.74 99.71 65.99 165.70	A4 0.15 0.00 0.15 2.77 0.00 2.77	A5 2.22 0.00 2.22 8.90 0.00 8.90	B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00	E: 1 m ² B2 0.72 0.00 0.72 8.22 0.00 8.22	floorc C2 0.01 0.00 0.01 0.01 0.01 0.15 0.00 0.15	0.12 0.00 0.12 0.56 0.00 0.56	9 C4/1 0.21 0.00 0.21 3.29 0.00 3.29	C2 0.0 0.0 0.0 3.2 0.0 3.2	1/2 1/2 03 0 03 0 03 0 03 0 03 0 03 0 03 0 00 0 27 0 27 0 27 0	C4/3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	D -0.24 0.00 -0.24 -2.51 0.00 -2.51	-0.55 0.00 -0.55 -2.62 0.00 -2.62	-3.80 0.00 -3.80 -38.29 0.00 -38.29	-0.35 0.00 -0.35 -71.73 0.00 -71.73
Paramo PER PER PENF PENF PENF SM	eter E	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ]	A1-A3 23.74 0.00 23.74 99.71 65.99 165.70 3.31	A4 0.15 0.00 0.15 2.77 0.00 2.77 0.00 2.77	A5 2.22 0.00 2.22 8.90 0.00 8.90 0.10	B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	E: 1 m ² B2 0.72 0.00 0.72 8.22 0.00 8.22 0.00	floorc C2 0.01 0.00 0.01 0.01 0.15 0.00	OVERIN C3/3 0.12 0.00 0.12 0.56 0.00 0.56 0.00	C4/1 0.21 0.21 0.21 3.29 0.00 3.29 0.00	C2 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	H2 D3 D3 <thd3< th=""> D3 D3 D3<!--</td--><td>C4/3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.</td><td>D -0.24 0.00 -0.24 -2.51 0.00 -2.51 0.00</td><td>-0.55 0.00 -0.55 -2.62 0.00 -2.62 0.00</td><td>-3.80 0.00 -3.80 -38.29 0.00 -38.29 0.00</td><td>-0.35 0.00 -0.35 -71.73 0.00 -71.73 0.00</td></thd3<>	C4/3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	D -0.24 0.00 -0.24 -2.51 0.00 -2.51 0.00	-0.55 0.00 -0.55 -2.62 0.00 -2.62 0.00	-3.80 0.00 -3.80 -38.29 0.00 -38.29 0.00	-0.35 0.00 -0.35 -71.73 0.00 -71.73 0.00
Paramo PER PER PENF PENF SM RSF	eter E M T RE RM RT RT	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [kg] [MJ] 2	A1-A3 23.74 0.00 23.74 99.71 65.99 165.70 3.31 2.34E-3	A4 0.15 0.00 0.15 2.77 0.00 2.77 0.00 2.77 0.00 1.84E-5	A5 2.22 0.00 2.22 8.90 0.00 8.90 0.10 1.02E-4	B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	E: 1 m ² B2 0.72 0.00 0.72 8.22 0.00 8.22 0.00 5.08E-5	floorc C2 0.01 0.00 0.01 0.01 0.15 0.00 0.15 0.00 1.02E-6	Overin C3/3 0.12 0.00 0.12 0.56 0.00 0.56 0.00 7.40E-6	g C4/1 0.21 0.00 0.21 3.29 0.00 3.29 0.00 2.77E-	C2 0.0 0.0 0.0 3.1 0.0 3.1 0.0 3 1.81	1/2 1/2 03 0 03 0 03 0 03 0 03 0 03 0 27 0 27 0 27 0 27 0 27 0 27 0 27 0	C4/3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	D -0.24 0.00 -0.24 -2.51 0.00 -2.51 0.00 -2.73E-5	-0.55 0.00 -0.55 -2.62 0.00 -2.62 0.00 -3.45E-5	-3.80 0.00 -3.80 -38.29 0.00 -38.29 0.00 -4.18E-4	-0.35 0.00 -0.35 -71.73 0.00 -71.73 0.00 -6.38E-5
Paramo PER PER PENF PENF PENF SM	eter	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [Kg] [MJ] 2 [MJ] 2	A1-A3 23.74 0.00 23.74 99.71 65.99 165.70 3.31 2.34E-3 2.60E-2	A4 0.15 0.00 0.15 2.77 0.00 2.77 0.00 1.84E-5 1.93E-4	A5 2.22 0.00 2.22 8.90 0.00 8.90 0.10 1.02E-4 1.16E-3	B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	E: 1 m ² B2 0.72 0.00 0.72 8.22 0.00 8.22 0.00 5.08E-5 5.75E-4	floorc C2 0.01 0.00 0.01 0.01 0.15 0.00 0.15 0.00 1.02E-6	C3/3 0.12 0.00 0.12 0.56 0.00 0.56 0.00 7.40E-0 7.73E-5	G C4/1 0.21 0.00 0.21 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.27	C4 0.0 0.0 0.0 3.1 0.0 3.1 3.1.81 3.1.78	1/2 1/2 03 0 03 0 03 0 03 0 03 0 27 0 27 0 00 0 100 0 100 0 100 0 100 0 100 0 100 0 100 0 100 0	C4/3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	D -0.24 0.00 -0.24 -2.51 0.00 -2.51 0.00 -2.73E-5 -2.85E-4	-0.55 0.00 -0.55 -2.62 0.00 -2.62 0.00 -3.45E-5 -3.60E-4	-3.80 0.00 -3.80 -38.29 0.00 -38.29 0.00 -4.18E-4 -4.37E-3	-0.35 0.00 -0.35 -71.73 0.00 -71.73 0.00 -6.38E-5 -6.69E-4
Parama PER PER PENF PENF SM RSF NRS FW	eter E M T RE R R F F F F F F F F F F F F F	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] 2 [MJ] 2 [MJ] 2 [M]	A1-A3 23.74 0.00 23.74 99.71 65.99 165.70 3.31 2.34E-3 2.60E-2 2.60E-2 2.60E-2 2.60E-2 Use of re- rimary er- wable pri- rimary er- y materia	A4 0.15 0.00 0.77 0.00 2.77 0.00 1.84E-5 1.93E-4 2.72E-4 mergy resimary emergy resimary emergy resimary emergy resimance of the second seco	SOURC A5 2.22 0.00 2.22 8.90 0.10 1.02E4 1.16E-3 2.54E-3 e primary sources t bergy excosores t Use of r	EUS B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 sed as r cluding n used as enewable	B2 0.72 0.00 0.72 8.22 0.00 8.22 0.00 5.08E-5 5.75E-4 1.65E-3 1.65E-3 1.65E-3 excluding aw mate on-renew raw mate e second	floorc C2 0.01 0.00 0.15 0.00 1.51E-5 1.51E-5 grenewatrials; PEF rable priminals; PEF rable; PEF able priminals; PEF	C3/3 0.12 0.00 0.12 0.56 0.00 7.40E-0 7.73E-5 2.36E-4 le prima 2.36E-4 le prima 2.36E-4 NRSF water	g 0.21 0.00 0.21 3.29 0.00 3.29 0.00 2.77E- 5.77E- 4.37E- 5.77E- 4.37E- al use of rgy resolution of the second se	C2 0.0 0.0 0.0 3.3 0.0 3.1.81 3.1.76 4.1.66 7 enew urces to of non non-re	1/2 03 00 03 27 00 27 00 27 00 27 00 27 00 E-5 0.3E-4 0.3E-2 0.3E-3 0.4 0.5E-2 0.4 0.5E-2 0.5E-2 <	C4/3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	D -0.24 0.00 -0.24 -2.51 0.00 -2.51 0.00 -2.73E-5 -2.85E-4 4.93E-4 s raw mate- energy re- iaterials; imary en-	-0.55 0.00 -0.55 -2.62 0.00 -2.62 0.00 -3.45E-5 -3.60E-4 -1.10E-3 terials; PI sources; PENRM ergy reso	-3.80 0.00 -3.80 -3.829 0.00 -3.829 0.00 -4.18E-4 -4.37E-3 -7.68E-3 ERM = U PENRE = Use of urces; SI	-0.35 0.00 -0.35 -71.73 0.00 -71.73 0.00 -6.38E-5 -6.69E-4 -6.16E-3 se of = Use of non- M = Use
Paramo PER PERF PENF PENF PENF SM RSF NRS FW Captio	eter E M T RE RE R R F F F F F F F F F F F F F	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] 2 [MJ] 2 [MJ] 2 [M]	A1-A3 23.74 0.00 23.74 99.71 65.99 165.70 3.31 2.34E-3 2.60E-2 3.20E-2 Use of refrimary erywable op rimary erywable	A4 0.15 0.00 0.77 0.00 2.77 0.00 1.84E-5 1.93E-4 2.72E-4 mergy resimary emergy resimary emergy resimary emergy resimance of the second seco	SOURC A5 2.22 0.00 2.22 8.90 0.10 1.02E4 1.16E-3 2.54E-3 e primary sources t bergy excosores t Use of r	EUS B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 0.00E+0 0.00E+0 0.00E+0 sed as r cluding n used as enewable	B2 0.72 0.00 0.72 8.22 0.00 8.22 0.00 5.08E-5 5.75E-4 1.65E-3 1.65E-3 1.65E-3 excluding aw mate on-renew raw mate e second	floorc 0.01 0.00 0.01 0.05 0.00 0.15 0.00 1.02E-6 1.07E-5 1.51E-5 g renewatrials; PEF able prim male; PEF	C3/3 0.12 0.00 0.12 0.56 0.00 7.40E-0 7.73E-5 2.36E-4 le prima 2.36E-4 le prima 2.36E-4 NRSF water	g 0.21 0.00 0.21 3.29 0.00 3.29 0.00 2.77E- 5.77E- 4.37E- 5.77E- 4.37E- al use of rgy resolution of the second se	C2 0.0 0.0 0.0 3.3 0.0 3.1.81 3.1.76 4.1.66 7 enew urces to of non non-re	1/2 03 00 03 27 00 27 00 27 00 27 00 27 00 E-5 0.3E-4 0.3E-2 0.3E-3 0.4 0.5E-2 0.4 0.5E-2 0.5E-2 <	C4/3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	D -0.24 0.00 -0.24 -2.51 0.00 -2.51 0.00 -2.73E-5 -2.85E-4 4.93E-4 s raw mate- energy re- iaterials; imary en-	-0.55 0.00 -0.55 -2.62 0.00 -2.62 0.00 -3.45E-5 -3.60E-4 -1.10E-3 terials; PI sources; PENRM ergy reso	-3.80 0.00 -3.80 -38.29 0.00 -38.29 0.00 -4.18E-4 -4.37E-3 -7.68E-3 ERM = U PENRE = Use of urces; SI	-0.35 0.00 -0.35 -71.73 0.00 -71.73 0.00 -6.38E-5 -6.69E-4 -6.16E-3 se of = Use of non- M = Use
Paramo PER PERF PENF PENF PENF SM RSF NRS FW Captio	eter E M T R R R R R R F F F F F F F F F F F F F	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ]	A1-A3 23.74 0.00 23.74 99.71 65.99 165.70 3.31 2.34E-3 2.60E-2 3.20E-2 Use of refrimary erywable op rimary erywable	A4 0.15 0.00 0.77 0.00 2.77 0.00 1.84E-5 1.93E-4 2.72E-4 mergy resimary emergy resimary emergy resimary emergy resimance of the second seco	A5 2.22 0.00 2.22 8.90 0.00 8.90 0.10 1.02E-4 1.16E-3 2.54E-3 e primary sources to bergy exclosources to Use of r TPUT A5	EUS B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 0.00E+0 sed as renewable FLOW B1	E: 1 m ² B2 0.72 0.00 0.72 8.22 0.00 8.22 0.00 5.08E-5 5.75E-4 1.65E-3 excluding aw mate e second S AND B2	floorc C2 0.01 0.00 0.15 0.00 1.02E-6 1.07E-5 1.51E-5 prenewatrials; PEF vable priminal; PEF vable priminal; PEF vable priminal; PEF VAST C2	C3/3 0.12 0.00 0.12 0.56 0.00 0.56 0.00 7.40E-6 7.73E-5 2.36E-4 2.36E-4 Valle prima IRT = T NRSF water E CA	G 0.21 0.00 0.21 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 2.77E- 5.77E- 4.37E- any energe al use of FEGO C4/1	C4 0.0 0.0 0.0 0.0 0.0 3.3 3.3 1.8 3 1.76 4 1.66 99 resco renew urces f of non non-re	1/2 33 03 - 03 - 03 - 27 - 00 - 27 - 00 - 27 - 00 - 27 - 00 - 27 - 00 - 27 - 00 - 27 - 00 - 00 - 00 - 00 - 00 - 00 - 00 - 00 - 00 - 00 - 00 - 00 - 00 - 00 - 00 - 00 - 00 - 00 - <td>C4/3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.</td> <td>D -0.24 0.00 -0.24 -2.51 0.00 -2.751 0.00 -2.751 -2.85E-4 4.93E-4 araw materials; imary en- ondary fu</td> <td>-0.55 0.00 -0.55 -2.62 0.00 -2.62 0.00 -3.45E-5 -3.60E-4 -1.10E-3 terials; PI esources; PENRM ergy reso els; FW =</td> <td>-3.80 0.00 -3.80 -38.29 0.00 -38.29 0.00 -3.82.9 0.00 -3.82.9 0.00 -4.18E.4 -4.37E.3 -7.68E.3 ERM = U PENRE = Use of r</td> <td>-0.35 0.00 -0.35 -71.73 0.00 -71.73 0.00 -6.38E-5 -6.69E-4 6.16E-3 se of = Use of non- M = Use het fresh</td>	C4/3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	D -0.24 0.00 -0.24 -2.51 0.00 -2.751 0.00 -2.751 -2.85E-4 4.93E-4 araw materials; imary en- ondary fu	-0.55 0.00 -0.55 -2.62 0.00 -2.62 0.00 -3.45E-5 -3.60E-4 -1.10E-3 terials; PI esources; PENRM ergy reso els; FW =	-3.80 0.00 -3.80 -38.29 0.00 -38.29 0.00 -3.82.9 0.00 -3.82.9 0.00 -4.18E.4 -4.37E.3 -7.68E.3 ERM = U PENRE = Use of r	-0.35 0.00 -0.35 -71.73 0.00 -71.73 0.00 -6.38E-5 -6.69E-4 6.16E-3 se of = Use of non- M = Use het fresh
Paramo PER PER PENF PENF SM RSF NRS FW Captio	eter E M T RE RM RT RT RT RT RT RT RT RT RT RT	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ]	A1-A3 23.74 0.00 23.74 99.71 65.99 165.70 3.31 2.34E-3 2.60E-2 3.320E-2 1 2.60E-2 3.320E-2 2 Use of re rimary er wable pr rimary er rimary er wable pr rimary er rimary er rimary er rimary er rimary er ri	A4 0.15 0.00 0.15 2.77 0.00 2.77 0.00 1.84E-5 1.93E-4 2.72E-4 ergy res imary er nergy res imary er nergy res imary en A - OU A4 0.00E+0	SOURC A5 2.22 0.00 2.22 8.90 0.10 1.02E-4 1.16E-3 2.54E-3 e primary sources t Use of r TPUT A5 5.03E-7	EUS B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 energy ised as enewable FLOW B1 0.00E+0	E: 1 m ² B2 0.72 0.00 0.72 8.22 0.00 8.22 0.00 5.08E-5 5.75E-4 1.65E-3 excluding aw mate e second S AND B2 0.00E+0	floorc C2 0.01 0.00 0.15 0.00 0.15 0.00 1.02E-6 1.07E-5 1.51E-5 0.7 renewatrials; PEF vable priminals; PEN vable priminals; PEN VAST C2 0.00E+0	C3/3 0.12 0.00 0.12 0.56 0.00 0.56 0.00 7.40E-6 7.73E-5 2.36E-4 Jele prima VRT = T NRSF water E CA C3/3 0.00E+6	G 0.21 0.00 0.21 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 2.77E- 4.37E- any energial use of rgy resorbal use Use of FEGO C4/1 0.00E+	C2 0.0. 0.0. 0.0. 0.0. 0.0. 3.3. 3.1.87 3.1.77 4.1.66 99 rescu renew urces to f non non-re RIES	u/2	C4/3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	D -0.24 0.00 -0.24 -2.51 0.00 -2.73E-5 -2.85E-4 -4.93E-4 a raw materials; imary en- ondary fur D 0.00E+0	-0.55 0.00 -0.55 -2.62 0.00 -2.62 0.00 -3.45E-5 -3.60E-4 -1.10E-3 terials; P PENRM ergy resc els; FW = D/1 0.00E+0	-3.80 0.00 -3.80 -38.29 0.00 -38.29 0.00 -4.18E-4 -4.37E-3 -7.68E-3 ERM = U PENRE = Use of r D/2 0.00E+0	-0.35 0.00 -0.35 -71.73 0.00 -71.73 0.00 -6.38E-5 -6.69E-4 -6.16E-3 se of = Use of non- M = Use het fresh D/3 0.00E+0
Paramo PER PER PENF PENF SM RSF NRS FW Captio	eter E M T T T R E M T T T T T T T T T T T T T T T T T T	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ]	A1-A3 23.74 0.00 23.74 99.71 65.99 165.70 3.31 2.34E-3 2.60E-2 3.20E-2 2 Use of remary environmery env	A4 0.15 0.00 0.15 2.77 0.00 2.77 0.00 2.77 0.00 1.84E-5 1.93E-4 2.72E-4 enewable energy restimary ernergy ernergy restimary ernergy ernergy ernergy ern	A5 2.22 0.00 2.22 8.90 0.10 1.02E-4 1.16E-3 2.54E-3 e primary sources to Use of r TPUT A5 5.03E-7 4.29E-1	EUS B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 0.00E+0 energy ised as r enewable FLOW B1 0.00E+0	E: 1 m ² B2 0.72 0.00 0.72 8.22 0.00 5.08E-5 5.75E-4 1.65E-3 excluding aw mate e second 'S AND B2 0.00E+0 6.22E-1	floorc C2 0.01 0.00 0.15 0.00 0.15 0.00 1.02E-6 1.07E-5 1.51E-5 g renewatrials; PER- rails; PER- able prim- mails; PEN- ary fuels; WAST C2 0.00E+0 5.81E-4	C3/3 0.12 0.00 0.12 0.56 0.00 7.40E-6 7.73E-5 2.36E-4 ble prima T = T ot ary ene IRT = T ot IRT =	g 0.21 0.00 0.21 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 3.29 0.00 2.77E- 5.77E- 4.37E- any energial use of rgy resortal use Use of FEGO C4/1 0.00E+ 4.16E+	C2 0.0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.0.0 0.0.00 0.0.00 0.0.00 0.0.00 0.0.00 0.0.00	J/2 33 33 33 33 33 33 27 300 27 <tr< td=""><td>C4/3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.</td><td>D -0.24 0.00 -0.24 -2.51 0.00 -2.73E-5 -2.85E-4 4.93E-4 raw malenergy re- aterials; imary en- ondary fur D 0.00E+0 -2.70E-1</td><td>-0.55 -0.00 -0.55 -2.62 0.00 -2.62 0.00 -3.45E-5 -3.60E-4 -1.10E-3 terials; P terials; P PENRM ergy resce els; FW = D/1 0.00E+0 -6.07E-1</td><td>-3.80 0.00 -38.29 0.00 -38.29 0.00 -38.29 0.00 -4.18E-4 -4.37E-3 -7.68E-3 ERM = U PENRE = Use of r Use of r Use of r D/2 0.00E+0 -4.20E+0</td><td>0.35 0.00 -0.35 -71.73 0.00 -71.73 0.00 -6.38E-5 -6.69E-4 -6.16E-3 se of = Use of non- M = Use het fresh D/3 0.00E+0 -5.76E+1</td></tr<>	C4/3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	D -0.24 0.00 -0.24 -2.51 0.00 -2.73E-5 -2.85E-4 4.93E-4 raw malenergy re- aterials; imary en- ondary fur D 0.00E+0 -2.70E-1	-0.55 -0.00 -0.55 -2.62 0.00 -2.62 0.00 -3.45E-5 -3.60E-4 -1.10E-3 terials; P terials; P PENRM ergy resce els; FW = D/1 0.00E+0 -6.07E-1	-3.80 0.00 -38.29 0.00 -38.29 0.00 -38.29 0.00 -4.18E-4 -4.37E-3 -7.68E-3 ERM = U PENRE = Use of r Use of r Use of r D/2 0.00E+0 -4.20E+0	0.35 0.00 -0.35 -71.73 0.00 -71.73 0.00 -6.38E-5 -6.69E-4 -6.16E-3 se of = Use of non- M = Use het fresh D/3 0.00E+0 -5.76E+1
Paramo PER PER PENF PENF SM RSF NRS FW Captio	eter E M T T T R E M T T T T T T T T T T T T T T T T T T	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ]	A1-A3 23.74 0.00 23.74 99.71 65.99 165.70 3.31 2.34E-3 2.60E-2 3.20E-2 2.2 Use of re rimary er wable pr rimary er wable pr rimary er y materia 1E LCA ng A1-A3 1.72E-5 (2.30E-2 2.25E-3 (3.20E-2 (A4 0.15 0.00 0.15 2.77 0.00 2.77 0.00 1.84E-5 1.93E-4 2.72E-4 enewable energy res imary en ergy res imary en ergy res imary en output A4 0.00E+0 1.04E-2 3.79E-6	A5 2.22 0.00 2.22 8.90 0.00 1.02E4 1.16E3 2.54E3 e primary sources to bergy exc. Sources to bergy exc. Sources to bergy exc. Sources to J.503E-7 4.29E-1 1.45E-4	EUS B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 0.00E+0 sed as r sluding n used as enewabl FLOW B1 0.00E+0	E: 1 m ² B2 0.72 0.00 0.72 8.22 0.00 8.22 0.00 5.08E-5 5.75E-4 1.65E-3 excluding aw mate e second S AND B2 0.00E+0 6.22E-1 3.96E-4	floorc C2 0.01 0.00 0.15 0.00 1.15 0.00 1.51E-5 g renewatrials; PEF rable priminals; PEN lary fuels; WAST C2 0.00E+0 5.81E-4 2.11E-7	C3/3 0.12 0.00 0.12 0.56 0.00 7.40E-6 7.73E-5 2.36E-4 0.00 7.40E-6 7.73E-5 2.36E-4 12 T = Tot NRSF water E CA C3/3 0.00E+(1.30E-1 8.39E-5	g 0.21 0.00 0.21 3.29 0.00 3.29 0.00 2.77E- 4.37E- try energial use of al use of Use of C4/1 0.00 0.00 0.00 0.00 0.00 C4/1 0.00E+ 4.16E+ 5.52E-	C2 0.0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	J2 33 33 - 33 - 33 - 33 - 33 - 33 - 33 - 33 - 33 - 500 - E-5 0. JBE-2 0. JBE-2 0. Jable p jable p Jable p -	C4/3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	D -0.24 0.00 -0.24 -2.51 0.00 -2.73E-5 -2.85E-4 4.93E-4 raw males raw males ray males r	-0.55 -0.00 -0.55 -2.62 0.00 -2.62 -0.00 -3.45E-5 -3.60E-4 -1.10E-3 terials; PL sources; PENRM ergy reso els; FW = D/1 0.00E+0 -6.07E-1 -3.91E-4	-3.80 0.00 -3.829 0.00 -38.29 0.00 -3.18E-4 -4.37E-3 -7.68E-3 ERM = U PENRE = Use of r Use of r Use of r 0.00E+0 -4.20E+0 -2.70E-3	0.35 0.00 -0.35 -71.73 0.00 -71.73 0.00 -6.38E-5 -6.69E-4 -6.16E-3 se of = Use of non- M = Use het fresh D/3 0.00E+0 -5.76E+1 -1.25E-4
Paramo PER PER PENF PENF SM SM SM SM SM Captio Captio RESU 1 m ² 1 Paramo HWI NHW RWI CRU	eter E M T R R R F F F F F F F F F F F F F	Unit [M.]	A1-A3 23.74 0.00 23.74 0.00 23.74 0.00 23.74 165.99 165.70 3.31 2.34E-3 2.34E-3 2.36D-2 2 Use of re rimary er wable pr rimary er wable pr rimary er y materia 1E LCA 1.72E-5 0 2.30E-2 2.22E-3 0.00	A4 0.15 0.00 0.15 2.77 0.00 2.77 0.00 1.84E-5 1.93E-4 ergy res imary en hergy res 0.00E+0 1.04E-2 3.79E-6 0.00	SOURC A5 2.22 0.00 2.22 8.90 0.00 8.90 0.10 1.02E-4 1.16E-3 2.54E-3 e primary sources to oources to use of r TPUT A5 5.03E-7 4.29E-1 1.45E-4 0.00	EUS B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 0.00E+0 sed as r sluding n used as r enewable FLOW B1 0.00E+0 0.00E	E: 1 m ² B2 0.72 0.00 0.72 8.22 0.00 5.08E-5 5.75E-4 1.65E-3 excluding aw mate e second S AND B2 0.00E+0 6.22E-1 3.96E-4 0.00	floorc C2 0.01 0.00 0.15 0.00 1.02E-6 1.07E-5 1.51E-5 grenewatrials; PER vable prim trials; PER vable primtrials; PER vable primtrials; PER vable primtrials;	C3/3 0.12 0.00 0.12 0.56 0.00 7.40E-6 7.73E-5 2.36E-2 0.00 7.40E-6 7.73E-5 2.36E-2 0.00 7.40E-6 7.73E-5 2.36E-2 0.00 7.40E-6 7.73E-5 2.36E-2 0.00 8.39E-5 0.00	g 0.21 0.00 0.21 3.29 0.00 0.21 3.29 0.00 0.21 3.29 0.00 0.21 3.29 0.00 2.77E- 4.37E- my energal use of rgy resordal use = Use of FEGO C4/1 0.000E+ 4.16E+ 5.52E- 0.00	C2 0.0. 0.	V2 33 33	C4/3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	D -0.24 0.00 -0.24 -2.51 0.00 -2.73E-5 -2.85E-4 4.93E-4 fraw materials; imary en- ondary fu- b 0.00E+0 -2.70E-1 -1.74E-4 0.00	-0.55 -0.00 -0.55 -2.62 0.00 -2.62 0.00 -3.45E-5 -3.60E-4 -1.10E-3 terials; PF sources; PENRM ergy reso els; FW = D/1 0.00E+0 -6.07E-1 -3.91E-4 0.00	-3.80 0.00 -3.80 -38.29 0.00 -38.29 0.00 -4.18E-4 -4.37E-3 -7.68E-3 ERM = U PENRE = Use of r Use of r Use of r 0.00E+0 -2.70E-3 0.00	-0.35 -0.00 -0.35 -71.73 0.00 -71.73 0.00 -6.38E-5 -6.69E-4 -6.38E-5 -6.69E-4 -6.38E-5 -6.9E-4 -0.00 -5.76E+1 -1.25E-4 0.00
Paramo PER PER PENF PENF SM RSF NRS FW Captio	eter E M E R R R R R R R R R R R R R	Unit [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ] [MJ]	A1-A3 23.74 0.00 23.74 99.71 65.99 165.70 3.31 2.34E-3 2.60E-2 3.20E-2 2.2 Use of re rimary er wable pr rimary er wable pr rimary er y materia 1E LCA ng A1-A3 1.72E-5 (2.30E-2 2.25E-3 (3.20E-2 (A4 0.15 0.00 0.15 2.77 0.00 2.77 0.00 1.84E-5 1.93E-4 2.72E-4 enewable energy res imary en ergy res imary en ergy res imary en output A4 0.00E+0 1.04E-2 3.79E-6	A5 2.22 0.00 2.22 8.90 0.00 1.02E4 1.16E3 2.54E3 e primary sources to bergy exc. Sources to bergy exc. Sources to bergy exc. Sources to J.503E-7 4.29E-1 1.45E-4	EUS B1 0.00 0.00 0.00 0.00 0.00 0.00 0.00E+0 0.00E+0 0.00E+0 sed as r sluding n used as enewabl FLOW B1 0.00E+0	E: 1 m ² B2 0.72 0.00 0.72 8.22 0.00 8.22 0.00 5.08E-5 5.75E-4 1.65E-3 excluding aw mate e second S AND B2 0.00E+0 6.22E-1 3.96E-4	floorc C2 0.01 0.00 0.15 0.00 1.15 0.00 1.51E-5 g renewatrials; PEF rable priminals; PEN lary fuels; WAST C2 0.00E+0 5.81E-4 2.11E-7	C3/3 0.12 0.00 0.12 0.56 0.00 7.40E-6 7.73E-5 2.36E-4 0.00 7.40E-6 7.73E-5 2.36E-4 12 T = Tot NRSF water E CA C3/3 0.00E+(1.30E-1 8.39E-5	g 0.21 0.00 0.21 3.29 0.00 3.29 0.00 2.77E- 5.77E- 4.37E- rry energial use of al use of Use of C4/1 0.00E+ 4.16E+ 5.52E-	C2 0.0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	1/2 33 30 33 27 30 27 30 27 30 27 30 27 30 27 30 27 30 27 30 27 33 27 30 27 33 33 33 33 34 35 36 37 38 39 39 39 39 39 39 39 39 39 39 39 39 39 39 39 39 39 39	C4/3 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	D -0.24 0.00 -0.24 -2.51 0.00 -2.73E-5 -2.85E-4 4.93E-4 raw males raw males ray males r	-0.55 -0.00 -0.55 -2.62 0.00 -2.62 -0.00 -3.45E-5 -3.60E-4 -1.10E-3 terials; PL sources; PENRM ergy reso els; FW = D/1 0.00E+0 -6.07E-1 -3.91E-4	-3.80 0.00 -3.829 0.00 -38.29 0.00 -3.18E-4 -4.37E-3 -7.68E-3 ERM = U PENRE = Use of r Use of r Use of r 0.00E+0 -4.20E+0 -2.70E-3	0.35 0.00 -0.35 -71.73 0.00 -71.73 0.00 -6.38E-5 -6.69E-4 -6.16E-3 se of = Use of non- M = Use het fresh D/3 0.00E+0 -5.76E+1 -1.25E-4
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