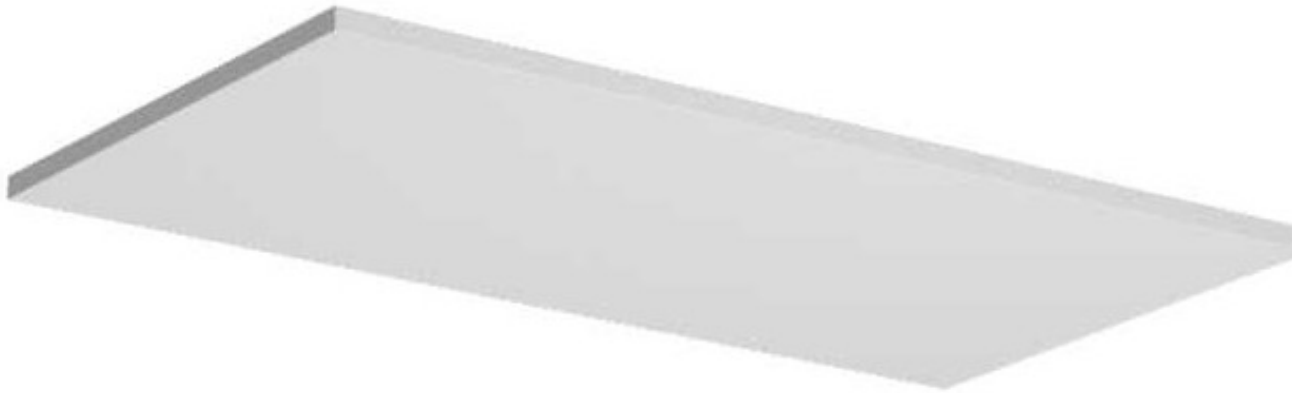
Environmental Product Declaration (EPD)
According to ISO 14025 and EN 15804+A2:2019

StoSilent Board 100 S; 105 C; 110 S



Registration number:	EPD-Kiwa-EE-245282-EN
Issue date:	12-10-2026
Valid until:	12-10-2031
Declaration owner:	Sto SE & Co. KGaA
Publisher:	Kiwa-Ecobility Experts
Programme operator:	Kiwa-Ecobility Experts
Status:	verified

1 General information

1.1 PRODUCT

StoSilent Board 100 S; 105 C; 110 S

1.2 REGISTRATION NUMBER

EPD-Kiwa-EE-245282-EN

1.3 VALIDITY

Issue date: 12-10-2026

Valid until: 12-10-2031

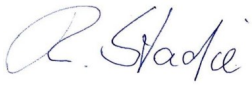
1.4 PROGRAMME OPERATOR

Kiwa-Ecobility Experts
Wattstraße 11-13
13355 Berlin
DE



Raoul Mancke

(Head of programme operations, Kiwa-Ecobility Experts)



Dr. Ronny Stadie

(Verification body, Kiwa-Ecobility Experts)

1.5 OWNER OF THE DECLARATION

Declaration owner: Sto SE & Co. KGaA

Address: Ehrenbachstraße 1, D-79780 Stühlingen, Germany

E-mail: infoservice@sto.com

Website: https://www.sto.com

Production location: Liaver GmbH & Co KG

Address production location: Gewerbepark „Am Wald“ 17, 98693 Ilmenau, Germany

1.6 VERIFICATION OF THE DECLARATION

The independent verification is in accordance with the ISO 14025:2011. The LCA is in compliance with ISO 14040:2006 and ISO 14044:2006. The EN 15804+A2:2019 serves as the core PCR.

☐ Internal ☒ External



Vijay Thakur, Vijay Thakur

1.7 STATEMENTS

The owner of this EPD shall be liable for the underlying information and evidence. The programme operator Kiwa-Ecobility Experts shall not be liable with respect to manufacturer data, life cycle assessment data and evidence.

1.8 PRODUCT CATEGORY RULES

Kiwa-EE GPI R.4.0 Kiwa-Ecobility Experts, General Programme Instructions “Product Level”, Program EE 1201 (18.12.2025)

Kiwa-EE GPI R.4.0 Annex B1 Kiwa-Ecobility Experts, General Programme Instructions “Product Level” – Annex B1 Environmental Information Programme according to EN 15804 / ISO 21930, Program EE 1203 (18.12.2025)]

Kiwa-Ecobility Experts (Kiwa-EE) – Product Category Rules (PCR B) for acoustical ceiling and wall solutions (Draft, 2023-03-29, v1)

1 General information

1.9 COMPARABILITY

In principle, a comparison or assessment of the environmental impacts of different products is only possible if they have been prepared in accordance with EN 15804+A2:2019. For the evaluation of the comparability, the following aspects have to be considered in particular: PCR used, functional or declared unit, geographical reference, the definition of the system boundary, declared modules, data selection (primary or secondary data, background database, data quality), scenarios used for use and disposal phases, and the life cycle inventory (data collection, calculation methods, allocations, validity period). PCRs and general program instructions of different EPD program operators may differ. Comparability needs to be evaluated. For further guidance, see EN 15804+A2:2019 and ISO 14025.

1.10 CALCULATION BASIS

LCA method R<THINK: Ecobility Experts | EN15804+A2

Characterization method: RETHINK characterization method (see references for more details)

LCA database profiles: ecoinvent (for version see references)

Version database: v3.20f (20260507)

1.11 LCA BACKGROUND REPORT

This EPD is generated on the basis of the LCA background report 'StoSilent Board 100 S; 105 C; 110 S' with the calculation identifier ReTHiNK-145282.

2 Product

2.1 PRODUCT DESCRIPTION

This EPD calculates the environmental impact of StoSilent Board 100 S, StoSilent Board 105 C and StoSilent Board 110 S. The input data used is based on StoSilent Board 110 S which demonstrates the highest environmental impact of the group due to its mass per m^2. Therefore, the calculation is considered a worst-case approach in regard to the product group.

The StoSilent products are acoustic boards made of expanded glass granulate for suspended ceiling and wall structures in accordance with EN 13964:2014 for Suspended ceilings - Requirements and test methods.

Area of application

- interior
- for suspended ceiling and wall structures

Materials	Weight (%)
Expanded glass granulate	80 - 90
Adhesive Fleece	1.5 - 3.0
Glass fiber, nonwoven	6.0 - 9.0
Additive	< 3

For the placing on the market of the product in the European Union/European Free Trade Association (EU/EFTA) (with the exception of Switzerland) Regulation (EU) No. 305/2011 (CPR) applies. The product needs a declaration of performance taking into consideration EN 13964:2014 Ceiling membrane of suspended ceiling and the CE-marking. For the application and use the respective national provisions apply.

The UNCPC Code for the declared product is: 37990 Non-metallic mineral products n.e.c. (including mineral wool, expanded mineral materials, worked mica, articles of mica, non-electrical articles of graphite or other carbon and articles of peat)

2.2 APPLICATION (INTENDED USE OF THE PRODUCT)

For suspended ceiling and wall applications requiring acoustic performance.

Application:

- StoSilent Board 105 C: adhesive fixed
- StoSilent Board 110 S: screw fixed, bonded board joints
- StoSilent Board 100 S: screw fixed, bonded board joints

2.3 REFERENCE SERVICE LIFE

RSL PRODUCT

The Sustainable Building Assessment System BNB specifies the service life of acoustic boards as at least 50 years (Code: 354.115.25).

The use phase is not declared in this EPD, therefore the reference service life according to ISO 15686 is not reported.

USED RSL (YR) IN THIS LCA CALCULATION:

50

2.4 TECHNICAL DATA

StoSilent Board 100 S

- diffusion-equivalent air layer thickness: EN ISO 7783 0.12 m with coating
- reaction to fire: EN 13501-1 A2-s1, d0 with coating
- rated value of thermal conductivity λ: TIAP-655 based on EN 12667 0.09 W/(m*K) with coating
- mass per unit area: 6.8 kg/m^2
- Bulk density: 270 kg/m^3
- sound absorption coefficient: EN ISO 11654 0.80 with coating: varies with suspension height and damping

StoSilent Board 105 C

- diffusion-equivalent air layer thickness: EN ISO 7783 0.13 m with coating
- reaction to fire: EN 13501-1 A2-s1, d0 with coating
- rated value of thermal conductivity λ: TIAP-655 based on EN 12667 0.08 W/(m*K) with coating
- mass per unit area: 6.6 kg/m^2
- raw density: 265 kg/m^3
- sound absorption coefficient: EN ISO 11654 0.95 with coating varies with suspension height and damping

StoSilent Board 110 S

- diffusion-equivalent air layer thickness: EN ISO 7783 0.13 m with coating
- reaction to fire: EN 13501-1 A2-s1, d0 with coating
- rated value of thermal conductivity λ: TIAP-655 based on EN 12667 0.09 W/(m*K) with coating

2 Product

- mass per unit area: 6.9 kg/m²
- raw density: 275 kg/m³
- sound absorption coefficient: EN ISO 11654 0.80 with coating varies with suspension height and damping

2.5 SUBSTANCES OF VERY HIGH CONCERN

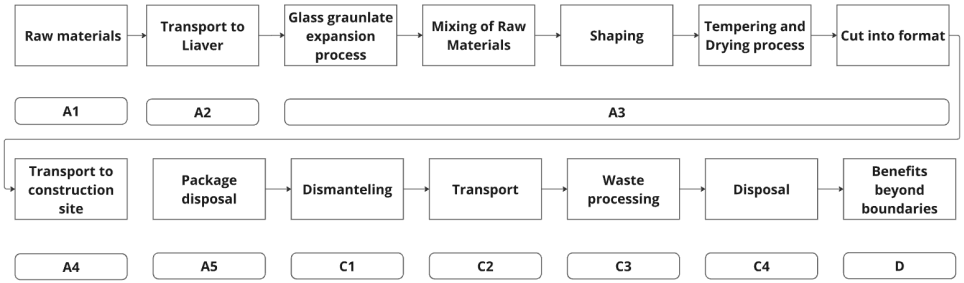
The product / At least one partial product contains substances from the ECHA list of candidates of substances of very high concern (SVHC) (dated 04 February 2026) exceeding 0.1 percentage by mass: **no**

The product / At least one partial product contains other CMR substances in categories 1A or 1B which are not on the candidate list, exceeding 0.1% by mass in at least one partial product: **no**

Biocidal products were added to this construction product or it has been treated with biocidal products (this then concerns a treated product as defined by the Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.): **no**

2.6 DESCRIPTION OF THE PRODUCTION PROCESS

StoSilent Board 100 S and 105 C and 110 S are manufactured at the production site in Ilmenau. In Ilmenau, all raw materials are mixed, formed into shape, dried, tempered, cut and sanded to format. The next production step includes lamination of non-woven fleece on front and rear under pressure, cut to format, application of edge coating and packaging.



2.7 CONSTRUCTION DESCRIPTION

The system build-up comprises a suspended sub-construction, StoSilent Board 105 C acoustic boards, and a force-transmitting adhesive bond. StoSilent Board 100 S and 110 S acoustic boards need to be screw-fixed onto the sub-construction. The StoSilent Board 105 C acoustic boards are fixed with an adhesive compound with high initial adhesion.

The highest substrate and application temperature for all system products is 30 °C. The maximum permitted relative humidity is 70 %. Only install the acoustic boards after the room has reached the suitable temperature and equilibrium humidity.

Installation for StoSilent Board **100 S and 110 S:**

1. Install the first acoustic board
2. Align the board
3. Screw the acoustic board
4. Apply the adhesive
5. Install the second acoustic board
6. Fix the acoustic board using screws
7. Bond the edges
8. Installing the boards
9. Install in the wall area
10. Filling and leveling coat
11. Knock off the adhesive

Installation for StoSilent Board **105 C**

1. Apply the adhesive onto the subconstruction profile
2. Position the acoustic board in the adhesive, gently press all the way around until the
   adhesive bears the weight of the acoustic board.
3. Apply the adhesive for the next acoustic board, position further acoustic board at the edge of an acoustic board that has already been stuck down.
4. Align the acoustic board. Press all board joints so they are at the same level.
5. Cut off the excess dry adhesive along the board edge.

3 Calculation rules

3.1 DECLARED UNIT

Acoustic Board

The declared unit is 1 m² of acoustic board in accordance with EN 13964:2014 for Suspended ceilings - Requirements and test methods. The scope of this LCA is cradle to gate with options A4 and A5, modules C1-C4 and module D.

Reference unit: m2

3.2 CONVERSION FACTORS

Description	Value	Unit
Reference unit	1	m2
Weight per reference unit	6.938	kg
Conversion factor to 1 kg	0.144134	m2

3.3 SCOPE OF DECLARATION AND SYSTEM BOUNDARIES

This is a Cradle-to-gate with options, modules C1-C4 and module D EPD. The life cycle stages included are as shown below:

(X = module included, ND = module not declared)

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X

The modules of the EN 15804 contain the following:

Module A1 = Raw material supply	Module B5 = Refurbishment
Module A2 = Transport	Module B6 = Operational energy use
Module A3 = Manufacturing	Module B7 = Operational water use
Module A4 = Transport	Module C1 = Deconstruction / Demolition
Module A5 = Construction - Installation process	Module C2 = Transport
Module B1 = Use	Module C3 = Waste Processing
Module B2 = Maintenance	Module C4 = Disposal
Module B3 = Repair	Module D = Benefits and loads beyond the product system boundaries
Module B4 = Replacement	

3.4 REPRESENTATIVENESS

This EPD is representative of StoSilent Board 100 S, StoSilent Board 105 C and StoSilent Board 110 S, produced by Sto SE & Co. KGaA in Lauingen, Germany. The results of this EPD are representative of the European Union. The scenarios included in this life cycle analysis are currently in use and are representative of one likely scenario.

3.5 CUT-OFF CRITERIA

Product stage (Module A1-A3)

3 Calculation rules

All input flows (e.g. raw materials, transportation, energy use, packaging, etc.) and output flows (e.g. production waste) are considered in this LCA. The total neglected input flows do therefore not exceed the limit of 5% of energy use and mass.

Construction process stage (A4-A5)

Module A4 accounts for the transportation of 1 m² of StoSilent board over 500 km. Module A5 accounts for the waste treatment of the product packaging. Energy use and waste during the installation phase are omitted.

End of life stage (Module C1-C4)

All input flows (e.g. energy use for demolition or disassembly, transport to waste processing, etc.) and output flows (e.g. end-of-life waste processing of the product, etc.) are considered in this LCA. The total neglected input flows do therefore not exceed the limit of 5% of energy use and mass. The end-of-life scenario is declared as 100 % landfill as one likely conservative scenario.

Benefits and Loads beyond the system boundary (Modul D)

All benefits and loads beyond the system boundary resulting from reusable products, recyclable materials and/or useful energy carriers leaving the product system are considered in this LCA.

Excluded processes

Following processes has not been taken into account in this life cycle analysis:

- The manufacture of equipment used in production, buildings or any other capital goods;
- The transportation of personnel to the production plant;
- The transportation of personnel within the production plant;
- Research and development activities; Long-term emissions

3.6 ALLOCATION

No allocation takes place during production. This LCA complies with the principle of modularity. There are no co-products that have to be taken into account.

The producer of StoSilent Board 100 S; 105 C; 110 S is under regulation from national authorities and follows the polluter pays principle.

3.7 DATA COLLECTION & REFERENCE PERIOD

This EPD project has been performed in January and February 2026 The year of study is from January to December 2025.

3.8 ESTIMATES AND ASSUMPTIONS

The end-of-life scenario is declared as 100 % landfill as one likely conservative scenario.

No product waste is accounted for at the construction site. If a board needs to be cut, the second half can be reused at another location. An assumption regarding construction losses can still be made if the declared environmental results from A1-A3, A4 and C and D are multiplied by a cut-off/breakage rate (Example: a 3% cut-off/breakage rate gives rise to a factor of 1.03 x environmental impact).

Due to the variations in systems for the different StoSilent boards, additional effort (energy, auxiliary material) in construction is omitted. It is advised to calculate the impact of the total system on a case-by-case basis.

1% cut off criteria have been applied for formulation and production data when applicable according to EN 15804+A2.

- A payload factor of 50 % was used for all truck transports, which in fact corresponds to a full delivery and empty return trip. A data set for a non-specific truck was used.

3.9 DATA QUALITY

Datasets from ecoinvent 3.9.1 (2022) have been used for calculation with R<think. The ecoinvent data therefore complies with the requirements of EN 15804 (background data not older than 10 years). Data concerning production has been gathered from the Production Management System used at the production site. No data of poor or very poor quality has been used for either time, geographical or technological representativeness.

The fair category dataset for “Glass cullet” accounts for more than 30 % of the core indicator Global warming potential - total of all declared modules including module D.

Quality requirement	Specific requirement	Data quality level	Notes
		The collected data is from 2025. The temporal	good

3 Calculation rules

Time related coverage	Age of data and minimum time period for data collection.	representativeness is less than 3 years	
Geographical coverage	Upstream: Unit process for raw material is collected for geographic region	Supplier data was collected and considered geographically in the model.	good
	Core: Unit process for production should represent the real site.	Specific data from the corresponding production site were used from 2025.	good
	Downstream: End-of-life disposal should represent the region of disposal	The end-of-life scenario is declared as a likely scenario for a bigger region (EU).	fair
Technical representative-ness	Qualitative assessment of the degree to which the data set reflects the true population of interest (technology)	Individual countries might deviate. Specific data from the corresponding production site was used if possible. If not, data from the same processes from other sites has been used.	fair

3.10 POWER MIX

The energy used consists of a market mix for Germany (residual mix, market based approach) and covers the foreground processes. The used electricity mix is calculated with an environmental impact of 0.748 kg CO2-eq/kWh.

4 Scenarios and additional technical information

4.1 TRANSPORT TO CONSTRUCTION SITE (A4)

For the transport from production place to assembly/user, the following scenario is assumed for module A4 of this EPD.

	Value and unit
Vehicle type used for transport	(ei3.9.1) Lorry (Truck) 16-32t, EURO6 | market for (EU)
Fuel type and consumption of vehicle	not available
Distance	500 km
Capacity utilisation (including empty returns)	50 % (loaded up and return empty)
Bulk density of transported products	inapplicable
Volume capacity utilisation factor	1

4.2 ASSEMBLY (A5)

The following information describes the scenarios for flows entering the system and flows leaving the system at module A5.

FLOWS ENTERING THE SYSTEM

There are no significant environment impacts as a result of materials or energy used in the construction stage (A5).

FLOWS LEAVING THE SYSTEM

The following output flows leaving the system at module A5 are assumed.

Description	Value	Unit
Output materials as result of loss during construction	0	%
Output materials as result of waste processing of materials used for installation/assembly at the building site	0.000	kg
Output materials as result of waste processing of used packaging	1.172	kg

4.3 DE-CONSTRUCTION, DEMOLITION (C1)

No inputs are needed for the product at the de-construction / demolition phase

4.4 TRANSPORT END-OF-LIFE (C2)

The following distances and transport conveyance are assumed for transportation during end of life for the different types of waste processing.

4 Scenarios and additional technical information

Waste Scenario	Transport conveyance	Not removed (stays in work) [km]	Landfill [km]	Incineration [km]	Recycling [km]	Re-use [km]
(ei3.9.1) Debris - STO mixed with 100% landfill	(ei3.9.1) Lorry (Truck), unspecified (default) | market group for (GLO)	0	100	150	50	0

The transport conveyance(s) used in the scenario(s) for transport during end of life has the following characteristics.

	Value and unit
Vehicle type used for transport	(ei3.9.1) Lorry (Truck), unspecified (default) | market group for (GLO)
Fuel type and consumption of vehicle	not available
Capacity utilisation (including empty returns)	50 % (loaded up and return empty)
Bulk density of transported products	inapplicable
Volume capacity utilisation factor	1

4.5 END OF LIFE (C3, C4)

The scenario(s) assumed for end of life of the product are given in the following tables.
First the assumed percentages per type of waste processing are displayed, followed by the assumed amounts.

Waste Scenario	Region	Not removed (stays in work) [%]	Landfill [%]	Incineration [%]	Recycling [%]	Re-use [%]
(ei3.9.1) Debris - STO mixed with 100% landfill	EU	0	100	0	0	0

Waste Scenario	Not removed (stays in work) [kg]	Landfill [kg]	Incineration [kg]	Recycling [kg]	Re-use [kg]
(ei3.9.1) Debris - STO mixed with 100% landfill	0.000	6.938	0.000	0.000	0.000
Total	**0.000**	**6.938**	**0.000**	**0.000**	**0.000**

4.6 BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARY (D)

The presented Benefits and loads beyond the system boundary in this EPD are based on the following calculated Net output flows in kilograms and Energy recovery displayed in MJ Lower Heating Value.

4 Scenarios and additional technical information

Waste Scenario	Net output flow [kg]	Energy recovery [MJ]
(ei3.9.1) Debris - STO mixed with 100% landfill	-5.742	0.000
Total	**-5.742**	**0.000**

5 Results

For the impact assessment long-term emissions (>100 years) are not considered. The results of the impact assessment are only relative statements that do not make any statements about end-points of the impact categories, exceedance of threshold values, safety margins or risks. The following tables show the results of the indicators of the impact assessment, of the use of resources as well as of waste and other output flows.

5.1 ENVIRONMENTAL IMPACT INDICATORS PER M2

CORE ENVIRONMENTAL IMPACT INDICATORS EN 15804+A2

Abbr.	Unit	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO_2 eq.	1.89E+0	1.07E-1	1.42E+0	3.42E+0	7.50E-1	2.00E+0	0.00E+0	1.03E-1	0.00E+0	4.22E-2	7.38E+0
GWP-f	kg CO_2 eq.	1.86E+0	1.07E-1	3.33E+0	5.30E+0	7.49E-1	6.77E-2	0.00E+0	1.03E-1	0.00E+0	4.22E-2	7.33E+0
GWP-b	kg CO_2 eq.	2.22E-2	3.45E-5	-1.91E+0	-1.89E+0	2.41E-4	1.94E+0	0.00E+0	3.35E-5	0.00E+0	1.84E-5	3.82E-2
GWP-luluc	kg CO_2 eq.	1.60E-3	5.29E-5	4.08E-3	5.73E-3	3.70E-4	9.30E-5	0.00E+0	3.67E-4	0.00E+0	2.55E-5	4.93E-3
ODP	kg CFC 11 eq.	2.23E-8	2.33E-9	1.01E-7	1.26E-7	1.63E-8	1.85E-9	0.00E+0	1.83E-9	0.00E+0	1.22E-9	9.66E-8
AP	mol H+ eq.	9.75E-3	2.34E-4	6.74E-3	1.67E-2	1.64E-3	4.45E-4	0.00E+0	4.93E-4	0.00E+0	3.18E-4	5.64E-2
EP-fw	kg P eq.	6.75E-5	8.71E-7	1.83E-4	2.52E-4	6.09E-6	6.21E-7	0.00E+0	1.02E-6	0.00E+0	4.11E-7	1.44E-4
EP-m	kg N eq.	1.63E-3	5.77E-5	1.71E-3	3.41E-3	4.03E-4	1.96E-4	0.00E+0	1.87E-4	0.00E+0	1.21E-4	7.95E-3
EP-T	mol N eq.	2.08E-2	6.01E-4	1.94E-2	4.08E-2	4.20E-3	2.17E-3	0.00E+0	2.00E-3	0.00E+0	1.31E-3	9.67E-2
POCP	kg NMVOC eq.	7.20E-3	3.64E-4	8.32E-3	1.59E-2	2.54E-3	6.25E-4	0.00E+0	6.82E-4	0.00E+0	4.55E-4	2.89E-2
ADP-mm	kg Sb-eq.	4.45E-5	3.50E-7	6.23E-6	5.10E-5	2.45E-6	1.33E-7	0.00E+0	3.23E-7	0.00E+0	5.85E-8	3.82E-5
ADP-f	MJ	3.90E+1	1.52E+0	4.91E+1	8.96E+1	1.06E+1	5.32E-1	0.00E+0	1.47E+0	0.00E+0	1.05E+0	8.38E+1
WDP	m3 world eq.	1.49E+0	7.14E-3	3.24E-1	1.82E+0	4.99E-2	8.10E-3	0.00E+0	9.05E-3	0.00E+0	4.71E-2	1.32E+0

GWP-total=Global Warming Potential total (GWP-total) | **GWP-f**=Global Warming Potential fossil fuels (GWP-fossil) | **GWP-b**=Global Warming Potential biogenic (GWP-biogenic) | **GWP-luluc**=Global Warming Potential land use and land use change (GWP-luluc) | **ODP**=Depletion potential of the stratosperic ozon layer (ODP) | **AP**=Acidification potential, Accumulated Exceedance (AP) | **EP-fw**=Eutrophication potential, fraction of nutrients reaching freshwater end compartment (EP-freshwater) | **EP-m**=Eutrophication potential, fraction of nutrients reaching marine end compartment (EP-marine) | **EP-T**=Eutrophication potential, Accumulated Exceedance (EP-terrestrial) | **POCP**=Formation potential of tropospheric ozone (POCP) | **ADP-mm**=Abiotic depletion potential for non fossil resources (ADP mm) | **ADP-f**=Abiotic depletion for fossil resources potential (ADP fossil) | **WDP**=Water (user) deprication potential, deprivation-weighted water consumption (WDP)

5 Results

ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS EN 15804+A2

Abbr.	Unit	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
PM	disease incidence	9.16E-8	7.95E-9	7.66E-8	1.76E-7	5.56E-8	5.41E-9	0.00E+0	1.02E-8	0.00E+0	6.95E-9	7.39E-7
IR	kBq U235 eq.	7.45E-2	7.71E-4	7.25E-2	1.48E-1	5.39E-3	4.78E-4	0.00E+0	5.75E-4	0.00E+0	2.78E-4	9.48E-2
ETP-fw	CTUe	1.38E+1	7.53E-1	1.07E+1	2.52E+1	5.26E+0	7.95E-1	0.00E+0	1.09E+0	0.00E+0	4.93E-1	6.12E+1
HTP-c	CTUh	1.00E-9	4.88E-11	3.24E-9	4.29E-9	3.41E-10	2.96E-10	0.00E+0	5.45E-11	0.00E+0	1.79E-11	2.70E-9
HTP-nc	CTUh	3.20E-8	1.08E-9	1.59E-8	4.90E-8	7.55E-9	9.43E-10	0.00E+0	1.18E-9	0.00E+0	2.25E-10	7.65E-8
SQP	Pt	8.79E+0	9.20E-1	1.69E+2	1.79E+2	6.43E+0	3.74E-1	0.00E+0	1.16E+0	0.00E+0	2.09E+0	1.89E+1

PM=Potential incidence of disease due to PM emissions (PM) | **IR**=Potential Human exposure efficiency relative to U235 (IRP) | **ETP-fw**=Potential Comparative Toxic Unit for ecosystems (ETP-fw) | **HTP-c**=Potential Comparative Toxic Unit for humans (HTP-c) | **HTP-nc**=Potential Comparative Toxic Unit for humans (HTP-nc) | **SQP**=Potential soil quality index (SQP)

CLASSIFICATION OF DISCLAIMERS TO THE DECLARATION OF CORE AND ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS

ILCD classification	Indicator	Disclaimer
ILCD type / level 1	Global warming potential (GWP)	None
	Depletion potential of the stratospheric ozone layer (ODP)	None
	Potential incidence of disease due to PM emissions (PM)	None
ILCD type / level 2	Acidification potential, Accumulated Exceedance (AP)	None
	Eutrophication potential, Fraction of nutrients reaching freshwater end compartment (EP-freshwater)	None
	Eutrophication potential, Fraction of nutrients reaching marine end compartment (EP-marine)	None
	Eutrophication potential, Accumulated Exceedance (EP-terrestrial)	None
	Formation potential of tropospheric ozone (POCP)	None
	Potential Human exposure efficiency relative to U235 (IRP)	1
ILCD type / level 3	Abiotic depletion potential for non-fossil resources (ADP-minerals&metals)	2
	Abiotic depletion potential for fossil resources (ADP-fossil)	2
	Water (user) deprivation potential, deprivation-weighted water consumption (WDP)	2
	Potential Comparative Toxic Unit for ecosystems (ETP-fw)	2
	Potential Comparative Toxic Unit for humans (HTP-c)	2
	Potential Comparative Toxic Unit for humans (HTP-nc)	2

5 Results

ILCD classification	Indicator	Disclaimer
	Potential Soil quality index (SQP)	2

Disclaimer 1 – This impact category deals mainly with the eventual impact of low dose ionizing radiation 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 underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – 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 experienced with the indicator.

5.2 INDICATORS DESCRIBING RESOURCE USE AND ENVIRONMENTAL INFORMATION BASED ON LIFE CYCLE INVENTORY (LCI)

PARAMETERS DESCRIBING RESOURCE USE

Abbr.	Unit	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	2.65E+0	2.39E-2	1.71E+1	1.97E+1	1.67E-1	1.58E-2	0.00E+0	2.09E-2	0.00E+0	8.89E-3	1.76E+0
PERM	MJ	0.00E+0	0.00E+0	1.64E+1	1.64E+1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
PERT	MJ	2.65E+0	2.39E-2	3.34E+1	3.61E+1	1.67E-1	1.58E-2	0.00E+0	2.09E-2	0.00E+0	8.89E-3	1.76E+0
PENRE	MJ	2.46E+1	1.52E+0	4.77E+1	7.38E+1	1.06E+1	5.32E-1	0.00E+0	1.48E+0	0.00E+0	1.05E+0	8.38E+1
PENRM	MJ	1.44E+1	0.00E+0	1.35E+0	1.58E+1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	-1.14E-2
PENRT	MJ	3.90E+1	1.52E+0	4.91E+1	8.96E+1	1.06E+1	5.32E-1	0.00E+0	1.48E+0	0.00E+0	1.05E+0	8.38E+1
SM	Kg	5.74E+0	0.00E+0	1.72E-1	5.91E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
RSF	MJ	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
NRSF	MJ	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
FW	m^3	2.93E-2	2.39E-4	1.42E-2	4.38E-2	1.67E-3	6.37E-4	0.00E+0	3.80E-4	0.00E+0	1.13E-3	3.71E-2

PERE=Use of renewable primary energy excluding renewable primary energy resources used as raw materials | **PERM**=Use of renewable primary energy resources used as raw materials | **PERT**=Total use of renewable primary energy resources | **PENRE**=Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials | **PENRM**=Use of non-renewable primary energy resources used as raw materials | **PENRT**=Total use of non-renewable primary energy resources | **SM**=Use of secondary material | **RSF**=Use of renewable secondary fuels | **NRSF**=Use of non-renewable secondary fuels | **FW**=Net use of fresh water

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OTHER ENVIRONMENTAL INFORMATION DESCRIBING WASTE CATEGORIES

Abbr.	Unit	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
HWD	Kg	5.07E-5	9.68E-6	1.64E-4	2.24E-4	6.77E-5	3.14E-6	0.00E+0	9.41E-6	0.00E+0	5.57E-6	3.50E-4
NHWD	Kg	4.14E-1	7.56E-2	3.72E-1	8.62E-1	5.29E-1	1.07E+0	0.00E+0	9.75E-2	0.00E+0	6.94E+0	6.02E-1
RWD	Kg	5.72E-5	5.00E-7	8.07E-5	1.38E-4	3.50E-6	3.27E-7	0.00E+0	3.38E-7	0.00E+0	1.55E-7	6.05E-5

HWD=Hazardous waste disposed | **NHWD**=Non-hazardous waste disposed | **RWD**=Radioactive waste disposed

ENVIRONMENTAL INFORMATION DESCRIBING OUTPUT FLOWS

Abbr.	Unit	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
CRU	Kg	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
MFR	Kg	0.00E+0	0.00E+0	7.15E-1	7.15E-1	0.00E+0	1.28E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
MER	Kg	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
EET	MJ	0.00E+0	0.00E+0	2.42E-1	2.42E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	4.16E+0
EEE	MJ	0.00E+0	0.00E+0	1.40E-1	1.40E-1	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	2.41E+0

CRU=Components for re-use | **MFR**=Materials for recycling | **MER**=Materials for energy recovery | **EET**=Exported Energy, Thermic | **EEE**=Exported Energy, Electric

5 Results

5.3 INFORMATION ON BIOGENIC CARBON CONTENT PER M2

BIOGENIC CARBON CONTENT

The following Information describes the biogenic carbon content in (the main parts of) the product at the factory gate per m2:

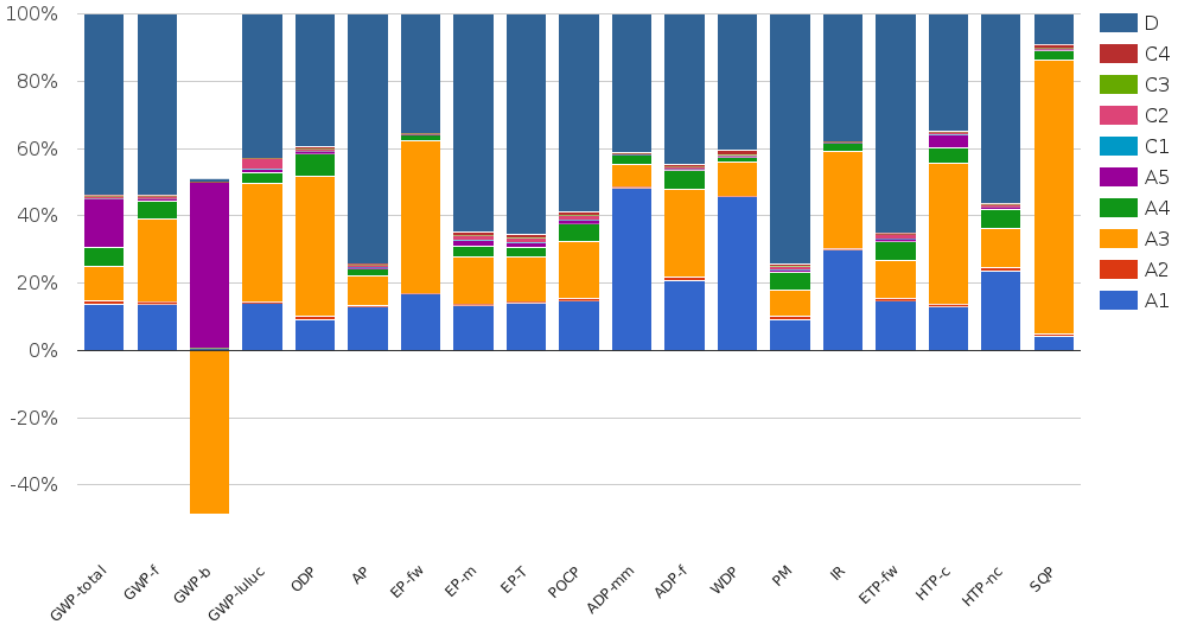
Biogenic carbon content	Amount	Unit
Biogenic carbon content in the product	0	kg C
Biogenic carbon content in accompanying packaging	0.5259	kg C

UPTAKE OF BIOGENIC CARBON DIOXIDE

The following amount of carbon dioxide uptake is taken into account. Related uptake and release of carbon dioxide in downstream processes are not taken into account in this number although they do appear in the presented results. One kilogram of biogenic Carbon content is equivalent to 44/12 kg of biogenic carbon dioxide uptake.

Uptake Biogenic Carbon dioxide	Amount	Unit
Packaging	1.928	kg CO2 (biogenic)

6 Interpretation of results



The figure above shows the influence of the different life stages on the LCA results. Module D contributes the largest share of several indicators due to the credits and burdens calculated beyond the system boundary. SQP, ODP, EP-fw, and HTP-c are dominated by production (A3).

The energy used during production (A3) contributes the second highest impact for GWP-f and ADP-f after module D.

The raw materials used in A1 contribute the second highest impact for AP, ADP-mm and WDP.

The second highest impact after module D is split for GWP-total, EP-m, EP-T and POCP and IR between A1 and A3 . Module A5 has approximately the same impact for GWP-total

6 Interpretation of results

as A1 and A3. GWP-b is evenly split between A3 and A5 due to the uptake and release of biogenic carbon dioxide of the packaging.

7 References

ISO 14040
ISO 14040:2006-10, Environmental management - Life cycle assessment - Principles and framework; EN ISO 14040:2006

ISO 14044
ISO 14044:2006-10, Environmental management - Life cycle assessment - Requirements and guidelines; EN ISO 14044:2006

ISO 14025
ISO 14025:2011-10: Environmental labels and declarations — Type III environmental declarations — Principles and procedures

EN 15804+A2
EN 15804+A2: 2019: Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

Kiwa-EE GPI R.4.0 Kiwa-Ecobility Experts, General Programme Instructions “Product Level”, Program EE 1201 (18.12.2025)

Kiwa-EE GPI R.4.0 Annex B1 Kiwa-Ecobility Experts, General Programme Instructions “Product Level” – Annex B1 Environmental Information Programme according to EN 15804 / ISO 21930, Program EE 1203 (18.12.2025)

c-PCR Kiwa GmbH, Ecobility Experts
Kiwa-Ecobility Experts (Kiwa-EE) – Product Category Rules (PCR B) for acoustical ceiling and wall solutions (Draft, 2023-03-29, v1)

DIN EN ISO 7783
DIN EN ISO 7783:2019-02, Bestimmung der Wasserdampfdurchlässigkeit – Schalenverfahren (ISO 7783: 2018);

DIN EN 13501-1
DIN EN 13501-1, 2018-Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests: 2019-05;

DIN EN 12667
DIN EN 12667:2001-05, Bestimmung des Wärmedurchlasswiderstandes nach dem Verfahren mit dem Plattengerät und dem Wärmestrommessplatten-Gerät;

DIN EN 11654
DIN EN ISO 11654:1997-07, Akustik– Schallabsorber für die Anwendung in Gebäuden;

ISO 15686
ISO 15686, Buildings and constructed assets Service life planning, various parts;

7 References

EN 13964
EN 13964:2014, Suspended ceilings — Requirements and test methods;

Regulation (EU) No 305/2011
Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC Text with EEA relevance;

Regulation (EU) No 528/2012
Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products Text with EEA relevance;

BBSR
Federal Office for Building and Regional Planning
Bundesinstitut für Bau, Stadt und Raumforschung (BBSR):
Nutzungsdauer von Bauteilen für Lebenszyklusanalyse nach Bewertungssystem Nachhaltiges Bauen(BNB);

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