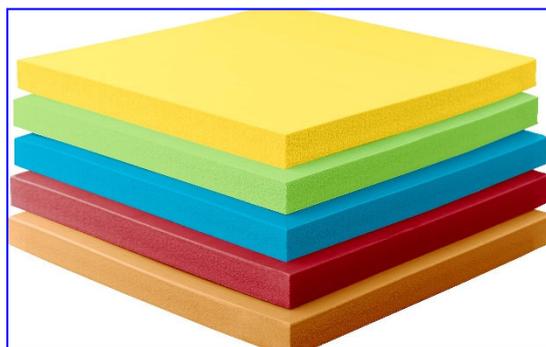


Environmental Product Declaration (EPD)



Declaration Code: EPD-KSI-GB-85.0



KRAIBURG PuraSys
GmbH & Co. KG



Vibration isolation

PURASYS vibrafoam® and PURASYS vibradyn®



Basis:

DIN EN ISO 14025
EN 15804 + A2

Company EPD
Environmental
Product Declaration

Publication date:
28.10.2025

Valid until:
28.10.2030



[www.ift-rosenheim.de/
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Environmental Product Declaration (EPD)



Declaration Code: EPD-KSI-GB-85.0

Programme operator	ift Rosenheim GmbH Theodor-Gietl-Straße 7-9 D-83026 Rosenheim		
Practitioner of the LCA	LEICHTphysics GmbH Spinnereiinsel 2 D-83043 Kolbermoor		
Declaration holder	KRAIBURG PuraSys GmbH & Co. KG Porschestraße 1 D-49356 Diepholz www.kraiburg-purasys.com		
Declaration code	EPD-KSI-GB-85.0		
Designation of declared product	PURASYS vibrafoam® and PURASYS vibradyn®		
Scope	Products made of elastic polyurethane foam for vibration isolation in construction, railways and industry.		
Basis	This EPD was prepared on the basis of EN ISO 14025:2011 and DIN EN 15804:2012+A2:2019. In addition, the "Allgemeiner Leitfaden zur Erstellung von Typ III Umweltproduktdeklarationen" (Guidance on preparing Type III Environmental Product Declarations) applies. The Declaration is based on the PCR documents "PCR Part A" PCR-A-2.0:2025 and "Technical parts" PCR-TTE-3.0:2023.		
Validity	Publication date:	Last revision:	Valid until
	28.10.2025	28.10.2025	28.10.2030
	This verified company Environmental Product Declaration applies solely to the specified products and is valid for a period of five years from the date of publication in accordance with DIN EN 15804.		
LCA basis	The LCA was prepared in accordance with DIN EN ISO 14040 and DIN EN ISO 14044. The base data includes both the data collected at the production site of KRAIBURG PuraSys GmbH & Co. KG and the generic data from the "LCA for Experts 10" database. LCA calculations were carried out for the included "cradle to gate with options" life cycle including all upstream chains (e.g. raw material extraction, etc.).		
Notes	The "Conditions and Guidance on the Use of ift Test Documents" apply. The declaration holder assumes full liability for the underlying data, certificates and verifications.		

Christoph Seehauser Deputy Head of Sustainability	Dr. Torsten Mielecke Chairman of Expert Committee ift-EPD and PCR	Vivien Zwick External verifier

1 General product information

Product definition

The EPD relates to the product group vibration isolation and applies to:

**1 m² and 25 mm of PURASYS vibrafoam® and PURASYS vibradyn®
made by KRAIBURG PuraSys GmbH & Co. KG**

The declared unit is obtained as follows:

Assessed product	Declared unit	Material thickness	Density	Weight per unit area
Vibrafoam SD1900 (PG1)	1 m ²	25 mm	940 kg/m ³	23,5 kg/m ²
Vibrafoam SD65 (PG2)	1 m ²	25 mm	305 kg/m ³	7,62 kg/m ²
Vibradyn S1500 (PG3)	1 m ²	25 mm	845 kg/m ³	21,1 kg/m ²

Table 1: Product groups

The average unit is declared as follows:

Directly used material flows are determined using the masses produced (kg) per m² of product produced, with a thickness of 25 mm, and assigned to the declared unit. All other inputs and outputs in the production are assigned to the declared unit in their entirety because they cannot be related to the average size. The reference period is the year 2023.

Taking into account the conversion factors (see Table 3, Table 4, Table 5) the validity of the EPD is limited to the following products:

Product group 1 PURASYS vibrafoam®	Product group 2 PURASYS vibrafoam®	Product group 3 PURASYS vibradyn®
SD 1900	SD 65	S 1500
SD 1300	SD 40	S 750
SD 950	SD 26	S 350
SD 650	SD 16	S 150
SD 400	SD 10	S 110
SD 260	-	S 75
SD 170	-	S 50
SD 110	-	-

Table 2: Product allocation and product groups

Product description

PURASYS vibrafoam® and PURASYS vibradyn® are products made from elastic polyurethane. The products are mainly used for vibration isolation in the construction and railway sectors, for impact sound insulation and as vibration decoupling elements in industrial applications.

PUR is produced by the reaction of polyols with isocyanates. The PURASYS vibrafoam® product range consists of 13 standard types, which are manufactured in standard thicknesses of 12.5 and 25 mm. The PURASYS

vibradyn® product range consists of 7 standard types, which are manufactured in standard thicknesses of 12.5 and 25 mm.

For the sake of simplicity, this EPD refers to 1 m² of PURASYS vibrafoam® SD65 with a thickness of 25 mm, 1 m² of PURASYS vibrafoam® SD1900 with a thickness of 25 mm, and 1 m² of PURASYS vibradyn® S1500 with a thickness of 25 mm.

Due to the homogeneity of the standard types, it can be assumed that the environmental impacts are scalable with the aid of conversion factors. The values for the other standard types in the PURASYS vibrafoam® and PURASYS vibradyn® product ranges, as well as other thicknesses, can be calculated using the following conversion factors from Table 3, Table 4, Table 5.

Conversion factors for the different PURASYS vibrafoam® products and thicknesses based on the SD1900 product in 25 mm:

Product	Thickness 12,5 mm	Thickness 25 mm
SD 1900	0,50	1,00
SD110	0,19	0,39
SD170	0,23	0,46
SD260	0,28	0,56
SD400	0,33	0,65
SD650	0,39	0,79
SD950	0,42	0,85
SD1300	0,45	0,90

Table 3: Conversion factors PURASYS vibrafoam® products

Conversion factors for the different PURASYS vibrafoam® products and thicknesses based on the SD65 product in 25 mm:

Product	Thickness 12,5 mm	Thickness 25 mm
SD 65	0,5	1,00
SD 10	0,28	0,55
SD 16	0,32	0,63
SD 26	0,37	0,73
SD 40	0,42	0,83

Table 4: Conversion factors PURASYS vibrafoam® products

Conversion factors for the different PURASYS vibradyn® products and thicknesses based on the S1500 product in 25 mm:

Product	Thickness 12,5 mm	Thickness 25 mm
S 1500	0,50	1,00
S50	0,16	0,33
S75	0,19	0,37
S110	0,23	0,45
S150	0,25	0,50
S350	0,36	0,72
S750	0,42	0,83

Table 5: Conversion factors PURASYS vibradyn® products

Example:

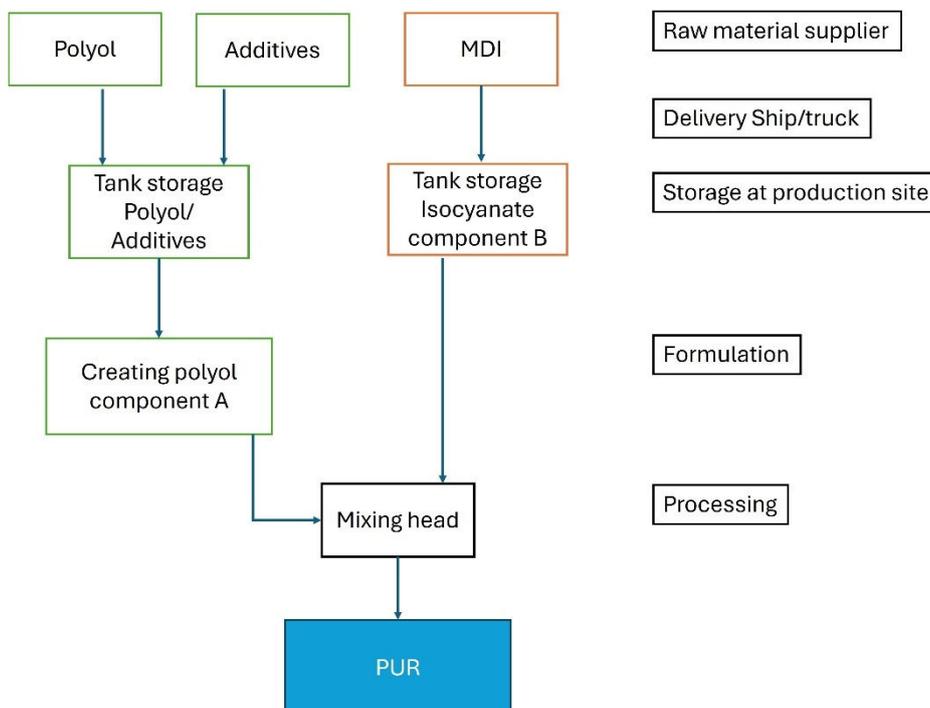
GWP-total (A1-A3) of Vibrafoam SD1900 (25 mm thick): 9,29E+01

GWP-total (A1-A3) of Vibrafoam SD110 (25 mm thick): 0,39 x 9,29E+01 = 3,62E+01

Conversion factors for special types and special component heights can be provided on request, but these have not been verified. (Special types and special component heights are not covered by the EPD).

For a detailed product description refer to the manufacturer specifications or the product specifications of the respective offer/quotation.

Product manufacture



Scope

Products made of elastic polyurethane foam for vibration isolation in construction, railways and industry.



Management systems

The following management systems are in place:

- Quality management system in accordance with DIN EN ISO 9001:2015
- Environmental management system in accordance with DIN EN ISO 14001:2015
- Quality management system in accordance with IATF 16949:2016

Additional information

For additional evidence of fitness for use or certificates of conformity, if applicable, please refer to the CE marking and the documents accompanying the product.

Information about material properties can be found at www.kraiburg-purasys.com/downloads/.

KRAIBURG PuraSys is assessed by EcoVadis in terms of the company's sustainability performance. Further information can be obtained from the manufacturer.

2 Materials used

Primary materials

The primary materials used are specified in Section 6.2 Inventory analysis (Inputs).

Declarable substances

The product contains no substances from the REACH candidate list (declaration dated 23 may 2025).

All relevant safety data sheets are available from KRAIBURG PuraSys GmbH & Co. KG

3 Construction process stage

Processing recommendations, installation

Observe the instructions for mounting/installation, operation, maintenance and disassembly, provided by the manufacturer.

4 Use stage

Emissions to the environment

No emissions to indoor air, water or soil are known. There may be VOC emissions.

Reference service life (RSL)

The RSL information was provided by the manufacturer. The RSL shall be specified under defined reference in-use conditions and shall refer to the declared technical and functional performance of the product within the building. It shall be established in accordance with any specific rules given in European product standards, or, if not available, in accordance with a c-PCR. It shall also take into account ISO 15686-1, -2, -7 and -8. Where European product standards or a c-PCR provide guidance on deriving the RSL, such guidance shall have priority.

If it is not possible to determine the service life as the RSL in accordance with ISO 15686, the BBSR table "Nutzungsdauer von Bauteilen zur Lebenszyklusanalyse nach BNB" (service life of building components for life cycle assessment in accordance with the sustainable construction

evaluation system) can be used. For further information and explanations refer to www.nachhaltigesbauen.de.

For this EPD the following applies:

For a “Cradle to gate with options” EPD with the modules C1-C4 and module D (A1-A3 + C + D and one or more additional modules from A4 to B7), the reference service life (RSL) can only be stated if the reference in-use conditions are specified.

The reference service life (RSL) of PURASYS vibrafoam® and PURASYS vibradyn® made by KRAIBURG PuraSys GmbH & Co. KG is not specified.

5 End-of-life stage

Possible end-of-life stages

The PURASYS vibrafoam® and PURASYS vibradyn® are shipped to central collection points. The end-of-life stage depends on the site where the products are used and is therefore subject to the local regulations. Observe the locally applicable regulatory requirements.

This EPD shows the end-of-life modules according to the market situation.

Materials are 100% deposited.

Disposal routes

The LCA includes the average disposal routes.

All life cycle scenarios are detailed in the Annex.

6 Life Cycle Assessment (LCA)

Environmental product declarations are based on life cycle assessments (LCAs) which use material and energy flows for the calculation and subsequent representation of environmental impacts.

Such life cycle assessments were developed for PURASYS vibrafoam® and PURASYS vibradyn®, serving as the basis. The LCAs are in conformity with the requirements set out in DIN EN 15804 and the international standards DIN EN ISO 14040, DIN EN ISO 14044 and EN ISO 14025 as well as based on ISO 21930.

The LCA is representative of the products presented in the Declaration and the specified reference period.

6.1 Definition of goal and scope

Goal

The goal of the LCA is to demonstrate the environmental impacts of the products. In accordance with DIN EN 15804, the environmental impacts covered by this Environmental Product Declaration are presented for the entire product life cycle in the form of basic information. Apart from these, no other environmental impacts are specified.

Data quality, data availability and geographical and time-related system boundaries

The specific data originate exclusively from the 2023 fiscal year. They were collected on-site at the plant located in 49356 Diepholz and come in parts from company records and partly from values directly obtained by measurement. Primary data on energy, water and packaging consumption, as well as auxiliary materials and waste/offcuts, was collected from the company's own data management system and through specific measurements.

The generic data come from the "LCA for Experts 10" professional and building materials databases. The last update of both databases was in 2025. The data quality for all data sets with a significant contribution, which together account for at least 80% of the results of the key environmental impact indicators, is rated as very good. These are not older than one year. No other generic data were used for the calculation.

The generic data selected are as accurate as possible in terms of geographical reference. If no country-specific datasets are available or regional reference cannot be established, European or global datasets are used.

Data gaps were either filled with comparable data or conservative assumptions, or the data were cut off in compliance with the 1% rule.

The life cycle was modelled using the sustainability software tool "LCA for Experts" version 10.9.1.17 with database version 2025.1. for the development of life cycle assessments. The LCA was evaluated using the EF3.1 impact assessment method.

The data quality complies with the requirements of EN15941:2024-10.

Scope / system boundaries	<p>The system boundaries refer to the supply of raw materials and purchased parts, manufacture/production and end-of-life stage of PURASYS vibrafoam® and PURASYS vibradyn®.</p> <p>No additional data from pre-suppliers/subcontractors or other sites were taken into consideration.</p>
Cut-off criteria	<p>All the data that the company records, i.e. all commodities/input and raw materials used, the thermal energy used and electricity consumption, were taken into consideration.</p> <p>The boundaries cover only the product-relevant data. Building sections/parts of facilities that are not relevant to the manufacture of the products, were excluded.</p> <p>The transport route of raw materials, ancillary materials and packaging was taken into account at 100% in relation to the mass of the products.</p> <p>In addition to the transport distances for pre-products, the transport distances for waste were also taken into consideration. The transport of waste in A3 was presented by the scenario as provided by the manufacturer:</p> <ul style="list-style-type: none"> • Transport to collection point using 34-40 t truck (Euro 0-6 mix), diesel, 27 t payload, 50% capacity used, 38,3 km <p>The criteria for the exclusion of inputs and outputs as set out in DIN EN 15804 are fulfilled. From the data analysis it can be assumed that the total of negligible processes per life cycle stage does not exceed 1% of the mass/primary energy. All in all, the total of negligible processes does not exceed 5% of the energy and mass input. The life cycle calculation also includes material and energy flows that account for less than 1%.</p>
6.2 Inventory analysis	
Goal	<p>All material and energy flows are described below. The processes covered are presented as input and output parameters and refer to the declared unit.</p>
Life cycle stages	<p>The Annex shows the entire life cycle of PURASYS vibrafoam® and PURASYS vibradyn®. The “Product stage” (A1 - A3), “Construction process stage” (A5), “End-of-life stage” (C1 - C4) and the “Benefits and loads beyond the system boundaries” (D) are considered.</p>
Benefits	<p>The below benefits have been defined in accordance with DIN EN 15804:</p> <ul style="list-style-type: none"> • Benefits from recycling • Benefits (thermal and electrical) from incineration
Allocation of co-products	<p>There are no allocations during production.</p>



Allocations for reuse, recycling and recovery

Allocations for reuse, recycling and recovery of the product are not applied. The system boundaries were set following their disposal, reaching the end-of-waste state.

Allocations beyond life cycle boundaries

The use of recycled materials in the manufacturing process was based on the current market-specific situation. A recycling potential that reflects the economic value of the product after recycling (recyclate) was also taken into account .

The system boundary set for the recycled material refers to collection.

Secondary material

The use of secondary material by KRAIBURG PuraSys GmbH & Co. KG was considered in module A3. Secondary material was not used.

Inputs

The LCA includes the following production-relevant inputs per 1 m² and 25 mm of PURASYS vibrafoam® and PURASYS vibradyn®:

Energy

The gas input material is based on "Erdgas Mix Deutschland" (natural gas Germany). The electricity mix is based on "Strommix Deutschland" (electricity mix Germany).

Electricity mix	Total	Unit
Strommix Deutschland	0,46	kg CO ₂ -eq. / kWh

Table 6: Greenhouse gas emissions from the use of electricity in the manufacturing phase

Water

The individual steps in the manufacturing process result in water consumption in litres per product group in m² per 25 mm material thickness:

Water consumption in l per m ² per 25mm		
PG 1	PG 2	PG 3
12,8	4,01	10,3

Table 7: Representation of water consumption in l per m² per 25 mm

The consumption of freshwater specified in Section 6.3 originates (among others) from the process chain of the pre-products and the water use in A3.

Raw material/pre-products

The chart below shows the share of raw materials/pre-products in %.

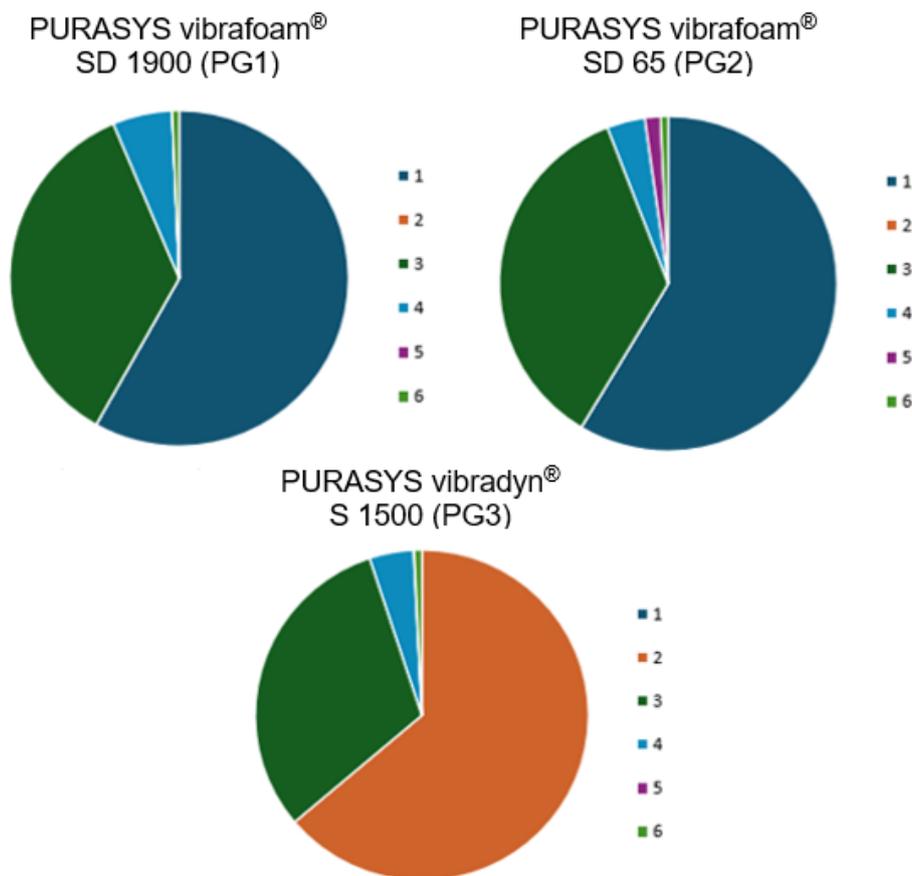


Figure 1: Percentage of individual materials per declared unit

No.	Material	Mass in %		
		PG 1	PG 2	PG 3
1	C3-Polyol	58,2	58,6	0,00
2	C4-Polyol	0,00	0,00	63,8
3	MDI	35,5	35,5	31,1
4	Chain extender	5,68	3,64	4,27
5	Propellant	0,00	1,49	0,07
6	Additives	0,67	0,73	0,74

Table 8: Percentage of individual materials per declared unit

Ancillary materials and consumables

The following ancillary materials and consumables are required.

Ancillary materials and consumables in kg		
PG 1	PG 2	PG 3
0,245	7,67E-02	0,198

Table 9: Ancillary materials and consumables in kg

Product packaging

The amounts used for product packaging are as follows:

Nr.	Material	Mass in kg per PG		
		PG 1	PG 2	PG 3
1	Polypropylene	3,04E-02	9,52E-03	2,45E-02
2	Wood	7,41E-01	2,32E-01	5,97E-01
3	Cardboard	1,66E-01	5,20E-02	1,34E-01
4	PET	8,74E-03	2,74E-03	7,05E-03

Table 10: Presentation of the packaging in kg per declared unit

Biogenic carbon content

Only the biogenic carbon content of the associated packaging is specified, as the total mass of substances containing biogenic carbon is less than 5% of the total mass of the product and associated packaging. In accordance with EN 16449, packaging produces the following amounts of biogenic carbon :

No.	Component	Content in kg C per 1 m ² in 25mm		
		PG 1	PG 2	PG 3
1	Wood	0,33	0,1	0,27
2	Cardboard	5,96E-02	1,87E-02	4,81E-02

Table 11: Biogenic carbon content of packaging at gate

Note: 1 kg C corresponds to 44/12 kg CO₂ eq. of biogenic carbon

GWP-b values resulting from the sequestration and release of biogenic carbon were calculated specifically for each life cycle module and are listed in table 12. The overall results table presented in this document, issued by "LCA for Experts", has not been changed.

Binding and release of CO ₂ emissions in kg CO ₂ -eqv. / 1 m ² in 25 mm						
Component		A1-A3	A5	C3	C4	D
PG 1	Packaging	-0,39	+0,39	0,00	0,00	0,00
PG 2	Packaging	-0,12	+0,12	0,00	0,00	0,00
PG 3	Packaging	-0,32	+0,32	0,00	0,00	0,00

Table 12: Binding and release of biogenic CO₂ emissions in kg CO₂-eqv. from packaging per life cycle module

Note: 1 kg C corresponds to 44/12 kg CO₂-eqv. of biogenic carbon

Outputs

The LCA includes the following production-relevant outputs per 1 m² and 25 mm of PURASYS vibrafoam® and PURASYS vibradyn®:

Waste

Secondary raw materials were included in the benefits. See Section 6.3 Impact assessment.

Waste water

The following quantities of wastewater are generated during production:

Wastewater in l per m ² in 25mm		
PG 1	PG 2	PG 3
12,8	4,01	10,3

Table 13: Representation of wastewater volume in l per m² in 25 mm

6.3 Impact assessment

Goal

The impact assessment covers both inputs and outputs. The impact categories applied are named below:

Core indicators

The models for impact assessment were applied as described in DIN EN 15804+A2.

The impact categories presented in the EPD as core indicators are as follows:

- Climate change – total (GWP-t)
- Climate change – fossil (GWP-f)
- Climate change – biogenic (GWP-b)
- Climate change - land use and land use change (GWP-l)
- Ozone depletion (ODP)
- Acidification (AP)
- Eutrophication aquatic freshwater (EP-fw)
- Eutrophication aquatic marine (EP-m)
- Eutrophication terrestrial (EP-t)
- Photochemical ozone creation (POCP)
- Depletion of abiotic resources - fossil fuels (ADPF)
- Depletion of abiotic resources - minerals and metals (ADPE)
- Water use (WDP)



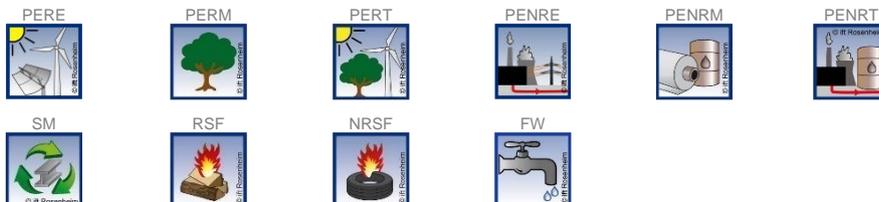
Use of resources

The models for impact assessment were applied as described in DIN EN 15804-A2.

The following parameters for the use of resources are shown in the EPD:

- Renewable primary energy as energy source (PERE)
- Renewable primary energy for material use (PERM)
- Total use of renewable primary energy (PERT)
- Non-renewable primary energy as energy resource (PENRE)
- Non-renewable primary energy for material use (PENRM)
- Total use of non-renewable primary energy (PENRT)
- Use of secondary materials (SM)

- Use of renewable secondary fuels (RSF)
- Use of non-renewable secondary fuels (NRSF)
- Net use of freshwater resources (FW)



Waste

The waste generated during the production of 1 m² and 25 mm of PURASYS vibrafoam® and PURASYS vibradyn® is evaluated and shown separately for the fractions trade wastes, special wastes and radioactive wastes. Since waste handling is modelled within the system boundaries, the amounts shown refer to the deposited wastes. A portion of the waste indicated is generated during the manufacture of the pre-products.

The models for impact assessment were applied as described in DIN EN 15804-A2.

The waste categories and indicators for output material flows presented in the EPD are as follows:

- Hazardous waste disposed (HWD)
- Non-hazardous waste disposed (NHWD)
- Radioactive waste disposed (RWD)
- Components for reuse (CRU)
- Materials for recycling (MFR)
- Materials for energy recovery (MER)
- Exported electrical energy (EEE)
- Exported thermal energy (EET)



Additional environmental impact indicators

The models for impact assessment were applied as described in DIN EN 15804-A2.

The additional impact categories presented in the EPD are as follows:

- Particulate matter emissions (PM)
- Ionising radiation, human health (IRP)
- Ecotoxicity – freshwater (ETP-fw)
- Human toxicity - cancer effect (HTP-c)
- Human toxicity - non-cancer effect (HTP-nc)
- Land use related impacts / soil quality (SQP)





Results per 1 m² and 25 mm of PURASYS vibrafoam® SD1900 (PG1)

Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Core indicators															
GWP-t	kg CO ₂ eq.	9,29E+01	ND	1,54E+00	ND	ND	ND	ND	ND	ND	0,00E+00	2,26E-01	0,00E+00	3,60E-01	-4,74E-01
GWP-f	kg CO ₂ eq.	9,44E+01	ND	1,24E-01	ND	ND	ND	ND	ND	ND	0,00E+00	2,15E-01	0,00E+00	3,59E-01	-4,71E-01
GWP-b	kg CO ₂ eq.	1,57E+00	ND	1,41E+00	ND	ND	ND	ND	ND	ND	0,00E+00	8,81E-03	0,00E+00	-1,16E-03	-2,17E-03
GWP-l	kg CO ₂ eq.	1,05E-01	ND	4,35E-05	ND	ND	ND	ND	ND	ND	0,00E+00	2,19E-03	0,00E+00	1,47E-03	-5,49E-04
ODP	kg CFC-11 eq.	3,83E-10	ND	1,93E-13	ND	ND	ND	ND	ND	ND	0,00E+00	4,14E-14	0,00E+00	1,00E-12	-3,74E-12
AP	mol H ⁺ eq.	1,72E-01	ND	2,81E-04	ND	ND	ND	ND	ND	ND	0,00E+00	3,10E-04	0,00E+00	2,54E-03	-5,04E-04
EP-fw	kg P eq.	8,39E-04	ND	3,14E-08	ND	ND	ND	ND	ND	ND	0,00E+00	5,77E-07	0,00E+00	5,34E-07	-3,67E-07
EP-m	kg N eq.	6,02E-02	ND	8,67E-05	ND	ND	ND	ND	ND	ND	0,00E+00	1,29E-04	0,00E+00	6,64E-04	-1,51E-04
EP-t	mol N eq.	6,34E-01	ND	1,20E-03	ND	ND	ND	ND	ND	ND	0,00E+00	1,32E-03	0,00E+00	7,24E-03	-1,69E-03
POCP	kg NMVOC eq.	1,56E-01	ND	2,36E-04	ND	ND	ND	ND	ND	ND	0,00E+00	2,82E-04	0,00E+00	1,99E-03	-4,17E-04
ADPF*2	MJ	2,10E+03	ND	4,16E-01	ND	ND	ND	ND	ND	ND	0,00E+00	2,76E+00	0,00E+00	4,71E+00	-8,19E+00
ADPE*2	kg Sb eq.	1,37E-05	ND	2,21E-09	ND	ND	ND	ND	ND	ND	0,00E+00	1,43E-08	0,00E+00	2,22E-08	-4,10E-08
WDP*2	m ³ world eq. deprived	9,66E+00	ND	1,71E-01	ND	ND	ND	ND	ND	ND	0,00E+00	1,07E-03	0,00E+00	3,89E-02	-4,14E-02
Use of resources															
PERE	MJ	3,39E+02	ND	3,83E+00	ND	ND	ND	ND	ND	ND	0,00E+00	2,09E-01	0,00E+00	-	-7,07E-01
PERM	MJ	3,72E+00	ND	-3,72E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	3,43E+02	ND	1,09E-01	ND	ND	ND	ND	ND	ND	0,00E+00	2,09E-01	0,00E+00	-	-7,07E-01
PENRE	MJ	1,53E+03	ND	8,05E-01	ND	ND	ND	ND	ND	ND	0,00E+00	2,76E+00	0,00E+00	-	-1,98E+00
PENRM	MJ	5,67E+02	ND	-3,89E-01	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	2,10E+03	ND	4,16E-01	ND	ND	ND	ND	ND	ND	0,00E+00	2,76E+00	0,00E+00	-	-1,98E+00
SM	kg	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	6,80E-01	ND	4,02E-03	ND	ND	ND	ND	ND	ND	0,00E+00	1,07E-04	0,00E+00	-1,79E-03	-2,54E-04
Waste categories															
HWD	kg	1,73E-06	ND	2,18E-10	ND	ND	ND	ND	ND	ND	0,00E+00	1,17E-10	0,00E+00	1,03E-09	-4,46E-09
NHWD	kg	2,03E+00	ND	3,99E-02	ND	ND	ND	ND	ND	ND	0,00E+00	3,92E-04	0,00E+00	2,35E+01	-3,79E-03
RWD	kg	3,72E-02	ND	2,13E-05	ND	ND	ND	ND	ND	ND	0,00E+00	5,42E-06	0,00E+00	5,00E-05	-5,28E-04
Output material flows															
CRU	kg	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	5,13E-01	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	kg	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	MJ	1,12E+01	ND	2,21E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	MJ	2,58E+01	ND	3,99E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Key:

GWP-t – climate change - total **GWP-f** – climate change - fossil **GWP-b** – climate change - biogenic **GWP-l** – climate change - land use and land use change **ODP** – ozone depletion
AP - acidification **EP-fw** - eutrophication - aquatic freshwater **EP-m** - eutrophication - aquatic marine **EP-t** - eutrophication - terrestrial **POCP** - photochemical ozone formation **ADPF*2** - depletion of abiotic resources – fossil fuels **ADPE*2** - depletion of abiotic resources – minerals and metals **WDP*2** – water use **PERE** - use of renewable primary energy **PERM** - use of renewable primary energy resources used as raw materials **PERT** - total use of renewable primary energy **PENRE** - use of non-renewable primary energy **PENRM** - use of non-renewable primary energy resources used as raw materials **PENRT** - total use of non-renewable primary energy **SM** - use of secondary materials **RSF** - use of renewable secondary fuels **NRSF** - use of non-renewable secondary fuels **FW** - net use of freshwater **HWD** - hazardous waste disposed **NHWD** - non-hazardous waste disposed **RWD** - radioactive waste disposed **CRU** - components for reuse **MFR** - materials for recycling **MER** - materials for energy recovery **EEE** - exported electrical energy **EET** - exported thermal energy
ND – Not declared



Results per 1 m² and 25 mm of PURASYS vibrafoam® SD1900 (PG1)

Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Additional environmental impact indicators															
PM	Disease incidence	1,63E-06	ND	1,87E-09	ND	ND	ND	ND	ND	ND	0,00E+00	2,82E-09	0,00E+00	3,16E-08	-4,10E-09
IRP*1	kBq U235 eq.	3,78E+00	ND	3,33E-03	ND	ND	ND	ND	ND	ND	0,00E+00	7,68E-04	0,00E+00	5,54E-03	-8,72E-02
ETP-fw*2	CTUe	1,11E+03	ND	1,77E-01	ND	ND	ND	ND	ND	ND	0,00E+00	3,56E+00	0,00E+00	3,64E+00	-6,37E-01
HTP-c*2	CTUh	3,12E-08	ND	1,55E-11	ND	ND	ND	ND	ND	ND	0,00E+00	4,81E-11	0,00E+00	6,27E-11	-7,78E-11
HTP-nc*2	CTUh	1,74E-06	ND	7,77E-10	ND	ND	ND	ND	ND	ND	0,00E+00	2,69E-09	0,00E+00	2,34E-09	-1,21E-09
SQP*2	Dimensionless.	8,45E+02	ND	1,22E-01	ND	ND	ND	ND	ND	ND	0,00E+00	1,21E+00	0,00E+00	1,16E+00	-1,34E+00

Key:

PM – particulate matter emissions **IRP*1** – ionising radiation – human health **ETP-fw*2** - ecotoxicity – aquatic freshwater **HTP-c*2** - human toxicity potential – cancer effect **HTP-nc*2** - human toxicity potential – non-cancer effect **SQP*2** – land use related impacts / soil quality
ND – Not declared

Disclaimers

*1 This impact category deals mainly with the eventual impact of low-dose ionising 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 ionising radiation from the soil, from radon and from some building materials is also not measured by this indicator

*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 experience with the indicator



Results per 1 m² and 25 mm of PURASYS vibrafoam® SD65 (PG2)

Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Core indicators															
GWP-t	kg CO ₂ eq.	3,02E+01	ND	4,81E-01	ND	ND	ND	ND	ND	ND	0,00E+00	7,34E-02	0,00E+00	1,17E-01	-1,49E-01
GWP-f	kg CO ₂ eq.	3,04E+01	ND	3,90E-02	ND	ND	ND	ND	ND	ND	0,00E+00	6,98E-02	0,00E+00	1,17E-01	-1,48E-01
GWP-b	kg CO ₂ eq.	-2,01E-01	ND	4,42E-01	ND	ND	ND	ND	ND	ND	0,00E+00	2,86E-03	0,00E+00	-3,77E-04	-6,79E-04
GWP-l	kg CO ₂ eq.	3,37E-02	ND	1,36E-05	ND	ND	ND	ND	ND	ND	0,00E+00	7,12E-04	0,00E+00	4,78E-04	-1,72E-04
ODP	kg CFC-11 eq.	1,22E-10	ND	6,05E-14	ND	ND	ND	ND	ND	ND	0,00E+00	1,34E-14	0,00E+00	3,25E-13	-1,17E-12
AP	mol H ⁺ eq.	5,27E-02	ND	8,79E-05	ND	ND	ND	ND	ND	ND	0,00E+00	1,01E-04	0,00E+00	8,24E-04	-1,58E-04
EP-fw	kg P eq.	2,32E-04	ND	9,84E-09	ND	ND	ND	ND	ND	ND	0,00E+00	1,87E-07	0,00E+00	1,73E-07	-1,15E-07
EP-m	kg N eq.	1,80E-02	ND	2,71E-05	ND	ND	ND	ND	ND	ND	0,00E+00	4,19E-05	0,00E+00	2,15E-04	-4,74E-05
EP-t	mol N eq.	1,91E-01	ND	3,77E-04	ND	ND	ND	ND	ND	ND	0,00E+00	4,28E-04	0,00E+00	2,35E-03	-5,29E-04
POCP	kg NMVOC eq.	5,00E-02	ND	7,39E-05	ND	ND	ND	ND	ND	ND	0,00E+00	9,15E-05	0,00E+00	6,45E-04	-1,31E-04
ADPF*2	MJ	6,82E+02	ND	1,30E-01	ND	ND	ND	ND	ND	ND	0,00E+00	8,95E-01	0,00E+00	1,53E+00	-2,57E+00
ADPE*2	kg Sb eq.	5,12E-05	ND	6,92E-10	ND	ND	ND	ND	ND	ND	0,00E+00	4,62E-09	0,00E+00	7,21E-09	-1,28E-08
WDP*2	m ³ world eq. deprived	2,69E+00	ND	5,35E-02	ND	ND	ND	ND	ND	ND	0,00E+00	3,47E-04	0,00E+00	1,26E-02	-1,30E-02
Use of resources															
PERE	MJ	1,02E+02	ND	4,91E-01	ND	ND	ND	ND	ND	ND	0,00E+00	6,77E-02	0,00E+00	2,95E-01	-7,17E-01
PERM	MJ	4,57E-01	ND	-4,57E-01	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	1,02E+02	ND	3,43E-02	ND	ND	ND	ND	ND	ND	0,00E+00	6,77E-02	0,00E+00	2,95E-01	-7,17E-01
PENRE	MJ	4,98E+02	ND	1,78E-01	ND	ND	ND	ND	ND	ND	0,00E+00	8,95E-01	0,00E+00	1,53E+00	-2,57E+00
PENRM	MJ	1,84E+02	ND	-4,78E-02	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	6,82E+02	ND	1,30E-01	ND	ND	ND	ND	ND	ND	0,00E+00	8,95E-01	0,00E+00	1,53E+00	-2,57E+00
SM	kg	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	2,03E-01	ND	1,26E-03	ND	ND	ND	ND	ND	ND	0,00E+00	3,48E-05	0,00E+00	3,69E-04	-5,59E-04
Waste categories															
HWD	kg	5,11E-07	ND	6,82E-11	ND	ND	ND	ND	ND	ND	0,00E+00	3,78E-11	0,00E+00	3,35E-10	-1,40E-09
NHWD	kg	6,05E-01	ND	1,25E-02	ND	ND	ND	ND	ND	ND	0,00E+00	1,27E-04	0,00E+00	7,63E+00	-1,19E-03
RWD	kg	1,19E-02	ND	6,66E-06	ND	ND	ND	ND	ND	ND	0,00E+00	1,76E-06	0,00E+00	1,62E-05	-1,65E-04
Output material flows															
CRU	kg	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	1,61E-01	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	kg	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	MJ	3,50E+00	ND	6,92E-01	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	MJ	8,07E+00	ND	1,25E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Key:
GWP-t – climate change - total **GWP-f** – climate change - fossil **GWP-b** – climate change - biogenic **GWP-l** – climate change - land use and land use change **ODP** – ozone depletion
AP - acidification **EP-fw** - eutrophication - aquatic freshwater **EP-m** - eutrophication - aquatic marine **EP-t** - eutrophication - terrestrial **POCP** - photochemical ozone formation **ADPF*2** - depletion of abiotic resources – fossil fuels **ADPE*2** - depletion of abiotic resources – minerals and metals **WDP*2** – water use **PERE** - use of renewable primary energy **PERM** - use of renewable primary energy resources used as raw materials **PERT** - total use of renewable primary energy **PENRE** - use of non-renewable primary energy **PENRM** - use of non-renewable primary energy resources used as raw materials **PENRT** - total use of non-renewable primary energy **SM** - use of secondary materials **RSF** - use of renewable secondary fuels **NRSF** - use of non-renewable secondary fuels **FW** - net use of freshwater **HWD** - hazardous waste disposed **NHWD** - non-hazardous waste disposed **RWD** - radioactive waste disposed **CRU** - components for reuse **MFR** - materials for recycling **MER** - materials for energy recovery **EEE** - exported electrical energy **EET** - exported thermal energy
ND – Not declared

Results per 1 m² and 25 mm of PURASYS vibrafoam® SD65 (PG2)

Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Additional environmental impact indicators															
PM	Disease incidence	5,04E-07	ND	5,85E-10	ND	ND	ND	ND	ND	ND	0,00E+00	9,14E-10	0,00E+00	1,03E-08	-1,28E-09
IRP*1	kBq U235 eq.	1,20E+00	ND	1,04E-03	ND	ND	ND	ND	ND	ND	0,00E+00	2,49E-04	0,00E+00	1,80E-03	-2,73E-02
ETP-fw*2	CTUe	3,57E+02	ND	5,55E-02	ND	ND	ND	ND	ND	ND	0,00E+00	1,15E+00	0,00E+00	1,18E+00	-1,99E-01
HTP-c*2	CTUh	9,59E-09	ND	4,84E-12	ND	ND	ND	ND	ND	ND	0,00E+00	1,56E-11	0,00E+00	2,03E-11	-2,44E-11
HTP-nc*2	CTUh	4,95E-07	ND	2,43E-10	ND	ND	ND	ND	ND	ND	0,00E+00	8,73E-10	0,00E+00	7,61E-10	-3,78E-10
SQP*2	Dimensionless.	2,27E+02	ND	3,81E-02	ND	ND	ND	ND	ND	ND	0,00E+00	3,92E-01	0,00E+00	3,77E-01	-4,21E-01

Key:

PM – particulate matter emissions **IRP*1** – ionising radiation – human health **ETP-fw*2** - ecotoxicity – aquatic freshwater **HTP-c*2** - human toxicity potential – cancer effect **HTP-nc*2** - human toxicity potential – non-cancer effect **SQP*2** – land use related impacts / soil quality
ND – Not declared

Disclaimers

*1 This impact category deals mainly with the eventual impact of low-dose ionising 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 ionising radiation from the soil, from radon and from some building materials is also not measured by this indicator

*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 experience with the indicator

Results per 1 m² and 25 mm of PURASYS vibradyn® S1500 (PG3)

Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Core indicators															
GWP-t	kg CO ₂ eq.	8,93E+01	ND	1,24E+00	ND	ND	ND	ND	ND	ND	0,00E+00	2,03E-01	0,00E+00	3,23E-01	-3,82E-01
GWP-f	kg CO ₂ eq.	8,84E+01	ND	1,00E-01	ND	ND	ND	ND	ND	ND	0,00E+00	1,93E-01	0,00E+00	3,23E-01	-3,80E-01
GWP-b	kg CO ₂ eq.	9,10E-01	ND	1,14E+00	ND	ND	ND	ND	ND	ND	0,00E+00	7,92E-03	0,00E+00	-1,05E-03	-1,75E-03
GWP-l	kg CO ₂ eq.	1,03E-01	ND	3,51E-05	ND	ND	ND	ND	ND	ND	0,00E+00	1,97E-03	0,00E+00	1,32E-03	-4,43E-04
ODP	kg CFC-11 eq.	3,17E-10	ND	1,56E-13	ND	ND	ND	ND	ND	ND	0,00E+00	3,72E-14	0,00E+00	8,99E-13	-3,01E-12
AP	mol H ⁺ eq.	2,11E-01	ND	2,26E-04	ND	ND	ND	ND	ND	ND	0,00E+00	2,79E-04	0,00E+00	2,28E-03	-4,06E-04
EP-fw	kg P eq.	4,75E-04	ND	2,53E-08	ND	ND	ND	ND	ND	ND	0,00E+00	5,19E-07	0,00E+00	4,80E-07	-2,96E-07
EP-m	kg N eq.	7,61E-02	ND	6,99E-05	ND	ND	ND	ND	ND	ND	0,00E+00	1,16E-04	0,00E+00	5,97E-04	-1,22E-04
EP-t	mol N eq.	8,26E-01	ND	9,71E-04	ND	ND	ND	ND	ND	ND	0,00E+00	1,19E-03	0,00E+00	6,51E-03	-1,36E-03
POCP	kg NMVOC eq.	2,27E-01	ND	1,90E-04	ND	ND	ND	ND	ND	ND	0,00E+00	2,54E-04	0,00E+00	1,79E-03	-3,36E-04
ADPF*2	MJ	1,99E+03	ND	3,35E-01	ND	ND	ND	ND	ND	ND	0,00E+00	2,48E+00	0,00E+00	4,24E+00	-6,61E+00
ADPE*2	kg Sb eq.	1,43E-04	ND	1,78E-09	ND	ND	ND	ND	ND	ND	0,00E+00	1,28E-08	0,00E+00	2,00E-08	-3,30E-08
WDP*2	m ³ world eq. deprived	5,57E+00	ND	1,38E-01	ND	ND	ND	ND	ND	ND	0,00E+00	9,61E-04	0,00E+00	3,49E-02	-3,34E-02
Use of resources															
PERE	MJ	2,42E+02	ND	6,73E-01	ND	ND	ND	ND	ND	ND	0,00E+00	1,88E-01	0,00E+00	8,18E-01	-1,85E+00
PERM	MJ	5,84E-01	ND	-5,84E-01	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,43E+02	ND	8,82E-02	ND	ND	ND	ND	ND	ND	0,00E+00	1,88E-01	0,00E+00	8,18E-01	-1,85E+00
PENRE	MJ	1,48E+03	ND	3,96E-01	ND	ND	ND	ND	ND	ND	0,00E+00	2,48E+00	0,00E+00	4,24E+00	-6,61E+00
PENRM	MJ	5,09E+02	ND	-6,11E-02	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	1,99E+03	ND	3,35E-01	ND	ND	ND	ND	ND	ND	0,00E+00	2,48E+00	0,00E+00	4,24E+00	-6,61E+00
SM	kg	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	4,97E-01	ND	3,24E-03	ND	ND	ND	ND	ND	ND	0,00E+00	9,63E-05	0,00E+00	1,02E-03	-1,44E-03
Waste categories															
HWD	kg	1,46E-06	ND	1,76E-10	ND	ND	ND	ND	ND	ND	0,00E+00	1,05E-10	0,00E+00	9,27E-10	-3,59E-09
NHWD	kg	1,46E+00	ND	3,22E-02	ND	ND	ND	ND	ND	ND	0,00E+00	3,52E-04	0,00E+00	2,11E+01	-3,05E-03
RWD	kg	3,33E-02	ND	1,71E-05	ND	ND	ND	ND	ND	ND	0,00E+00	4,87E-06	0,00E+00	4,50E-05	-4,26E-04
Output material flows															
CRU	kg	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	4,14E-01	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	kg	0,00E+00	ND	0,00E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	MJ	9,03E+00	ND	1,78E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	MJ	2,08E+01	ND	3,21E+00	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Key:

GWP-t – climate change - total **GWP-f** – climate change - fossil **GWP-b** – climate change - biogenic **GWP-l** – climate change - land use and land use change **ODP** – ozone depletion
AP - acidification **EP-fw** - eutrophication - aquatic freshwater **EP-m** - eutrophication - aquatic marine **EP-t** - eutrophication - terrestrial **POCP** - photochemical ozone formation **ADPF*2** - depletion of abiotic resources – fossil fuels **ADPE*2** - depletion of abiotic resources – minerals and metals **WDP*2** – water use **PERE** - use of renewable primary energy **PERM** - use of renewable primary energy resources used as raw materials **PERT** - total use of renewable primary energy **PENRE** - use of non-renewable primary energy **PENRM** - use of non-renewable primary energy resources used as raw materials **PENRT** - total use of non-renewable primary energy **SM** - use of secondary materials **RSF** - use of renewable secondary fuels **NRSF** - use of non-renewable secondary fuels **FW** - net use of freshwater **HWD** - hazardous waste disposed **NHWD** - non-hazardous waste disposed **RWD** - radioactive waste disposed **CRU** - components for reuse **MFR** - materials for recycling **MER** - materials for energy recovery **EEE** - exported electrical energy **EET** - exported thermal energy
ND – Not declared

Results per 1 m² and 25 mm of PURASYS vibradyn® S1500 (PG3)

Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Additional environmental impact indicators															
PM	Disease incidence	3,37E-06	ND	1,51E-09	ND	ND	ND	ND	ND	ND	0,00E+00	2,53E-09	0,00E+00	2,84E-08	-3,30E-09
IRP*¹	kBq U235 eq.	3,34E+00	ND	2,68E-03	ND	ND	ND	ND	ND	ND	0,00E+00	6,91E-04	0,00E+00	4,98E-03	-7,03E-02
ETP-fw*²	CTUe	1,00E+03	ND	1,43E-01	ND	ND	ND	ND	ND	ND	0,00E+00	3,20E+00	0,00E+00	3,28E+00	-5,13E-01
HTP-c*²	CTUh	2,49E-08	ND	1,25E-11	ND	ND	ND	ND	ND	ND	0,00E+00	4,32E-11	0,00E+00	5,64E-11	-6,27E-11
HTP-nc*²	CTUh	1,10E-06	ND	6,26E-10	ND	ND	ND	ND	ND	ND	0,00E+00	2,42E-09	0,00E+00	2,11E-09	-9,73E-10
SQP*²	Dimensionless.	4,04E+02	ND	9,82E-02	ND	ND	ND	ND	ND	ND	0,00E+00	1,09E+00	0,00E+00	1,05E+00	-1,08E+00

Key:

PM – particulate matter emissions **IRP*¹** – ionising radiation – human health **ETP-fw*²** - ecotoxicity – aquatic freshwater **HTP-c*²** - human toxicity potential – cancer effect **HTP-nc*²** - human toxicity potential – non-cancer effect **SQP*²** – land use related impacts / soil quality
ND – Not declared

Disclaimers

*1 This impact category deals mainly with the eventual impact of low-dose ionising 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 ionising radiation from the soil, from radon and from some building materials is also not measured by this indicator

*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 experience with the indicator

6.4 Interpretation, LCA presentation and critical review

Evaluation

The environmental impacts of

- PURASYS vibrafoam® SD1900
- PURASYS vibrafoam® SD65
- PURASYS vibradyn® S1500

differ greatly. Due to its highest mass, PURASYS vibrafoam® SD 1900 also has the highest environmental impact. PURASYS vibrafoam® SD 65, on the other hand, has the lowest environmental impact due to its lowest mass. Due to its mass, PURASYS vibradyn® S1500 has a similar environmental impact to PURASYS vibrafoam® SD1900.

The main differences are based on the various preliminary products and raw materials used, as well as the mass of preliminary products and raw materials used for the respective products. This was to be expected, particularly in view of the polyols and MDI isocyanates used. The electricity required also has a significant influence on the life cycle assessment results. Since the upstream chains of the raw materials 'C4 polyol' and '1,4-butanediol' already have increased emissions during transport from Taiwan, the influence of these raw materials on the finished product is also increased. The environmental impact of PURASYS vibradyn® S1500 is due to the high product mass and the raw materials 'C4 polyol' and '1,4-butanediol' used. Compared to PURASYS vibrafoam® SD65, PURASYS vibrafoam® SD1900 has a higher impact in proportion to the difference in mass.

Due to the low mass-based use of catalytic substances, all products considered also have the lowest environmental impact.

In terms of manufacturing, the environmental impact of PURASYS vibrafoam® products stems mainly from the use of C3 polyols and MDI isocyanates respectively their precursor chains. In the case of PURASYS vibradyn® products, the environmental impact is primarily due to the production of 1,4-butanediol, 'C4 polyols' and MDI isocyanates and their respective precursor chains, especially transport.

In module C4 only marginal consumptions arising from the physical pretreatment and management of the disposal site are expected. Allocation to individual products is almost impossible for site disposal.

The expenses in modules A5, C1 and C3 are also not particularly relevant.

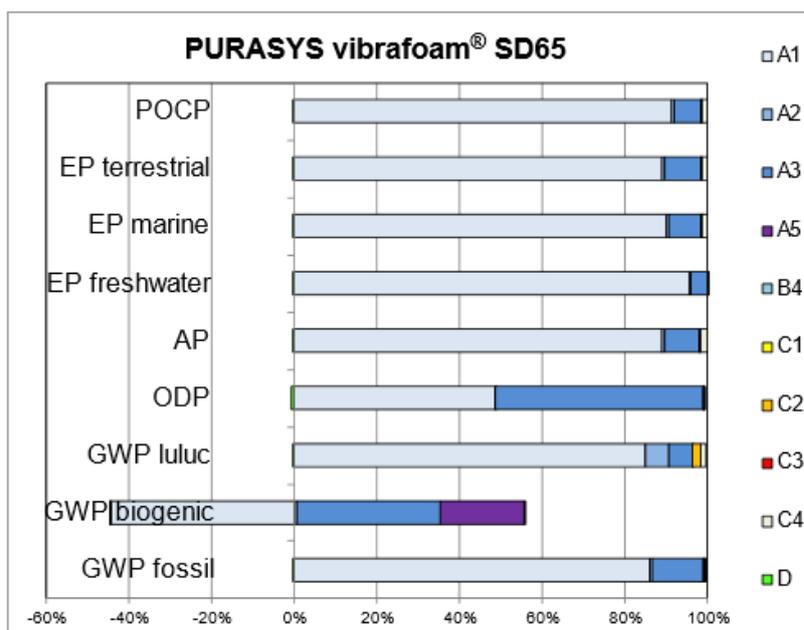
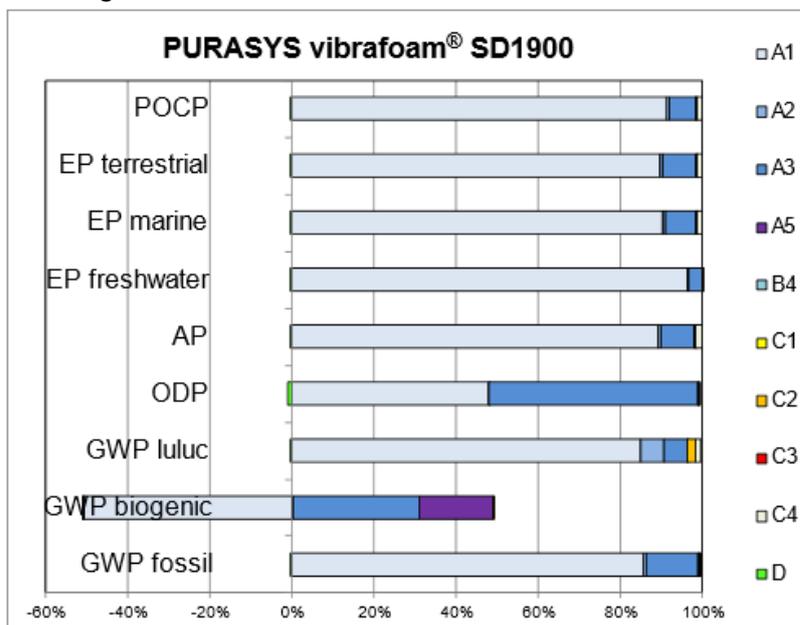
The credits in module D are attributable to the disposal and waste treatment of packaging materials.

The division of the main environmental impacts is shown in the diagrams below.

The values obtained from the LCA calculation are suitable for the certification of buildings.

Charts

The following charts show selected environmental indicators:



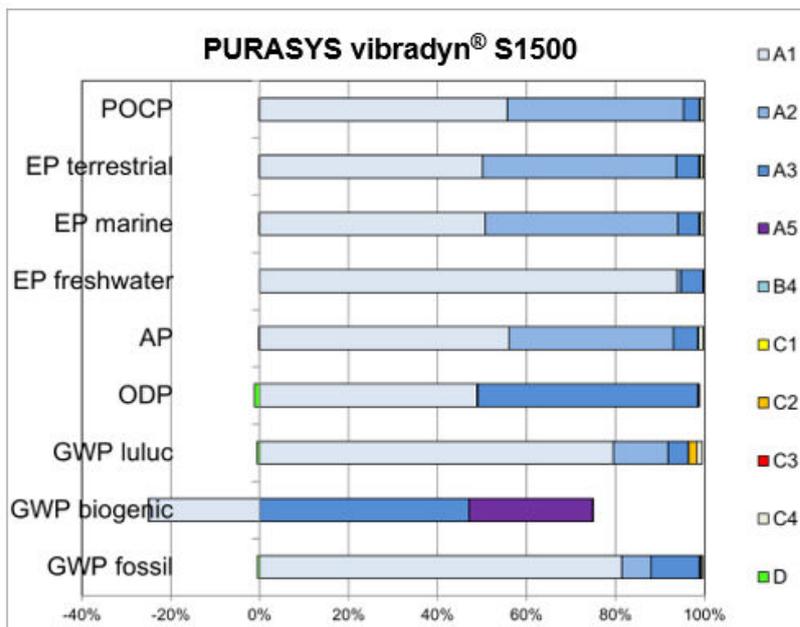


Figure 2: Percentage of the modules in selected environmental impact categories

Report

The LCA report underlying this EPD was developed according to the requirements of DIN EN ISO 14040 and DIN EN ISO 14044 as well as DIN EN 15804 and DIN EN ISO 14025. It is not addressed to third parties for reasons of confidentiality. It is deposited with the ift Rosenheim. The results and conclusions reported to the target group are complete, correct, without bias and transparent. The results of the study are not designed to be used for comparative statements intended for publication.

Critical review

The critical review of the LCA and the report took place in the course of verification of the EPD and was carried out by Vivien Zwick, an external verifier.



7 General information regarding the EPD

Comparability

This EPD was prepared in accordance with DIN EN 15804 and is therefore only comparable to those EPDs that also comply with the requirements set out in DIN EN 15804.

Any comparison must refer to the building context and the same boundary conditions of the various life cycle stages.

For comparing EPDs of construction products, the rules set out in DIN EN 15804 (Clause 5.3) apply.

The reference products included in the balance sheet were identified using the worst-case approach and deemed representative of the product group. The results for individual products within the product group differ from the results for the reference products. The establishment of the product groups and the resulting variations are documented in the background report.

Communication

The communications format of this EPD meets the requirements of EN 15942:2012 and is therefore the basis for B2B communication. Only the nomenclature has been changed according to DIN EN 15804.

Verification

Verification of the Environmental Product Declaration is documented in accordance with the ift "Richtlinie zur Erstellung von Typ III Umweltproduktdeklarationen" (Guidance on preparing Type III Environmental Product Declarations) in accordance with the requirements set out in DIN EN ISO 14025.

The Declaration is based on the PCR documents "PCR Part A" PCR-A-2.0:2025 and "Technical parts" PCR-TTE-3.0:2023

The European standard EN 15804 serves as the core PCR ^{a)}
Independent external verification of the Declaration and statement according to EN ISO 14025:2010
Independent third party verifier: ^{b)} Vivien, Zwick
^{a)} Product category rules ^{b)} Optional for business-to-business communication Mandatory for business-to-consumer communication (see EN ISO 14025:2010, 9.4)

Revisions of this document

No.	Date	Note:	Practitioner	Verifier
1	27.10.2025	External verification	Hannemann	Zwick

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9 Annex

Description of life cycle scenarios for PURASYS vibrafoam® and PURASYS vibradyn®

Product stage			Con- struction process stage		Use stage*							End-of-life stage				Benefits and loads from beyond the system boundaries
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Raw material supply	Transport	Manufacture	Transport	Construction/installation process	Use	Maintenance	Repair	Replacement	Modification/refurbishment	Operational energy use	Operational water use	Deconstruction/demolition	Transport	Waste processing	Disposal	Reuse Recovery Recycling potential
✓	✓	✓	—	✓	—	—	—	—	—	—	—	✓	✓	✓	✓	✓

* For the declared B modules, the calculation of the results is based on the specified RSL related to one year.

Table 14: Overview of applied life cycle stages

The scenarios were based on information provided by the manufacturer. The scenarios were further-
more based on the research project “EPDs for transparent building components”. (1)

Note: The standard scenarios selected are presented in bold type. They were also used for calculating
the indicators in the summary table.

- ✓ Included in the LCA
- Not included in the LCA

A5 Construction/installation process

No.	Scenario	Description
A5	Manual	<p>According to the manufacturer the products are installed without using additional lifting and auxiliary devices</p>
<p>In case of deviating consumption during installation/assembly of the products which forms part of the site management, they are covered at the construction works level.</p> <p>Ancillary materials, consumables, use of energy and water, use of other resources, material losses, direct emissions as well as waste materials during installation are negligible.</p> <p>It is assumed that the packaging material in the module “construction / installation” is sent to waste handling. Waste is only thermally recycled or disposed of in line with the conservative approach. Films/foils / protective covers, wood and cardboard in waste incineration plants. Benefits from A5 are specified in module D. Benefits from waste incineration: electricity replaces electricity mix (RER) (Residual-Mix); thermal energy replaces thermal energy from natural gas (RER). Transport to the recycling plants is not taken into account.</p> <p>Since only one scenario is used, the results are shown in the relevant summary table.</p>		

C1 Deconstruction, demolition

No.	Scenario	Description
C1	Deconstruction	<p>The product is 100% demolished along with the surrounding structure, e.g. walls and ceilings, and disposed of as construction waste. 100% of the product is sent to landfill.</p> <p>Further deconstruction rates are possible, give adequate reasons.</p>
<p>No relevant inputs or outputs apply to the scenario selected. The energy consumed for deconstruction is negligible, as dismantling is carried out in the course of building demolition and the energy expenditure incurred by the product is negligible due to its low mass in relation to the building. Any arising consumption is marginal.</p> <p>Since only one scenario is used, the results are shown in the relevant summary table.</p> <p>In case of deviating consumption, the removal of the products forms part of the site management and is covered at the construction works level.</p>		

Product group: vibration isolation

C2 Transport

No.	Scenario	Description
C2	Transport	Transport to collection point using 40 t truck (Euro 0-6 mix), diesel, 27 t payload, 50% capacity used, 100 km (1)
Since only one scenario is used, the results are shown in the relevant summary table.		

C3 Waste management (not relevant)

No.	Scenario	Description
C3	Current market situation	Percentage of materials returned: • 100% in landfill
The table below describes the disposal processes and their percentage by mass/weight. The calculation is based on the above mentioned proportions in percent related to the declared unit of the product system.		

C3 Disposal	Unit	PG1	PG2	PG3
Collection process, collected separately	kg	0,00	0,00	0,00
Collection process, collected as mixed construction waste	kg	23,50	7,625	21,125
Recovery system, for reuse	kg	0,00	0,00	0,00
Recovery system, for recycling	kg	0,00	0,00	0,00
Recovery system, for energy recovery	kg	0,00	0,00	0,00
Disposal	kg	23,50	7,625	21,125

Since only one scenario is used, the results are shown in the summary table.

C4 Disposal

No.	Scenario	Description
C4	Market situation	The product is 100% demolished along with the surrounding structure, e.g. walls and ceilings, and disposed of as construction waste. The entire quantity (C1) is modelled as 'deposited' (RER).

The consumption in scenario C4 results from physical pre-treatment, waste recycling and management of the disposal site. The benefits obtained here from the substitution of primary material production are allocated to module D, e.g. electricity and heat from waste incineration.

Since only one scenario is used, the results are shown in the summary table.



D Benefits and loads from beyond the system boundaries

No.	Scenario	Description ¹
D	Recycling potential (Current market situation)	Benefits from waste incineration: electricity replaces electricity mix (RER) (Residual-Mix); thermal energy replaces thermal energy from natural gas (RER).

The values in module “D” result from recycling of the packaging material in module A5.

Since only one scenario is used, the results are shown in the summary table.



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Notes

This EPD is mainly based on the work and findings of the Institut für Fenstertechnik e.V., Rosenheim (ift Rosenheim) and specifically on the "ift-Richtlinie NA-01/5 Allgemeiner Leitfaden zur Erstellung von Typ III Umweltproduktdeklarationen". (Guideline NA-01/5 - Guidance on preparing Type III Environmental Product Declarations)

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