SMART EPD CERTIFIED ENVIRONMENTAL PRODUCT DECLARATION

Environmental Product Declaration

IN ACCORDANCE WITH ISO 14025 AND ISO 21930:2017

Program Operator: Smart EPD®
www.smartepd.com

STONHARD

SmartEPD-2026-067-0751-02

Stonkote ESD

Date of Issue	Expiration date	Last updated
May 06, 2026	May 06, 2031	May 06, 2026

Refer to the EPD Library at www.smartepd.com for the latest EPD listing information

General Information

Stonhard

1000 E. Park Ave., Maple Shade, NJ 08052

1-800-257-7953

ctrageser@stonhard.com

stonhard.com

Product Name:	Stonkote ESD
Functional Unit:	1 m2 of covered and protected flooring surface for a period of 60 years
Declaration Number:	SmartEPD-2026-067-0751-02
Date of Issue:	May 06, 2026
Expiration:	May 06, 2031
Last updated:	May 06, 2026
EPD Scope:	Cradle to grave A1 - A3, A4, A5, B1 - B7, C1 - C4, D
Market(s) of Applicability:	North America

General Organization Information

Stonhard is the unprecedented leader in manufacturing and installing high performance floors. Our seamless, long lasting, easy to clean systems are engineered for both industrial and commercial markets. We also bring the same performance to our wall and lining systems. Joining form and function, our floors are the dependable go-to choice for tough manufacturing environments, while still honoring innovative design for commercial environments. Epoxy, urethane and fast-track methyl methacrylate resin-based systems deliver a broad range of options for every market and application. Stonhard manufactures and installs products throughout the world with headquarters in Maple Shade, New Jersey. Stonhard is an ISO-9001 registered company.

Further information can be found at: https://www.stonhard.com/

Limitations, Liability and Ownership

Environmental declarations from different programs (ISO 14025) may not be comparable. Comparison of the environmental performance of products using EPD information shall be based on the product's use and impacts at the building level, and therefore EPDs may not be used for comparability purposes when not considering the whole building life cycle. EPD comparability is only possible when all stages of a life cycle have been considered. However, variations and deviations are possible. Example of variations: Different LCA software and background LCI datasets may lead to differences results for upstream or downstream of the life cycle stages declared. The EPD owner has sole ownership, liability, and responsibility for the EPD.

Reference Standards

Standard(s):	ISO 14025 and ISO 21930:2017
PCR:	NSF PCR for Resinous Floor Coatings Date of issue: December 17, 2018 Valid until: June 30, 2026

PCR review panel:	Contact Smart EPD for more information.
General Program Instructions:	Smart EPD General Program Instructions v.2.0, March 2025

Verification Information

LCA Author/Creator:	Samuel Fafel samuel@parqhq.com
EPD Program Operator:	Smart EPD info@smartepd.com www.smartepd.com 585 Grove St., Ste. 145, Herndon, VA 20170, USA
Verification:	Independent critical review of the LCA and data, according to ISO 14044 and ISO 14071: External Rifat Karim | Independent Consultant | rifat.chimique@gmail.com Independent external verification of EPD, according to ISO 14025 and reference PCR(s): External Rifat Karim | Independent Consultant | rifat.chimique@gmail.com

Product Information

Functional Unit:	1 m2 of covered and protected flooring surface for a period of 60 years
Mass:	0.2267 kg
Reference Service Life:	5 Years
Product Specificity:	✗ Product Average ✓ Product Specific

Product Description

Stonkote ESD is a smooth, seamless, self-leveling conductive floor system designed to work in combination with ESD/static control programs to protect electronic environments. It is chemical and abrasion resistant, as well as easy to clean. A long-term floor solution for electronics assembly and manufacturing areas, pharmaceutical processing, data centers, aerospace assembly and any areas containing highly sensitive electronic equipment.

Further information can be found at: https://www.stonhard.com/products/complementary/floor-coatings/

Product Specifications

Product Classification Codes:	EC3 - Finishes -> Flooring -> OtherFlooring
Coating Type:	Thin mil floor coating
Options:	✓ Industrial
Estimated market service life:	5 years
Estimated technical service life:	5 years

Material Composition

Material/Component Category	Origin	% Mass
Amine		25 - 38
Defoamer / Air Release		< 10
Filler / Extender		< 10
Pigment		< 10
Resin		44 - 67
Rheology Modifier		< 10
Solvent / Diluent		< 10
Wetting Agent		< 10

Packaging Material	Origin	kg Mass
Aluminium foil		0.0005
Cardboard		0.01
Plastic ldpe		0.0026

Biogenic Carbon Content	kg C per m2
Biogenic carbon content in product	0None
Biogenic carbon content in accompanying packaging	0.00518

Hazardous Materials
phenol, polymer with formaldehyde, glycidyl ether (28064-14-4)
1,6 hexandiol glycidyl ether (16096-31-4)
titanium dioxide (13463-67-7)
PHENOL, 4,4'(-1-METHYLETHYLIDENE) BIS-, POLYMER WITH (CHLOROMETHYL) OXIRANE (25068-38-6)
benzene, 1-chloro-4-(trifluoromethyl)- (98-56-6)
carbon black (1333-86-4)
carbon (7440-44-0)
carbomocyclic alkylated mixtures of poly-aza-alkanes, hydrogenated (1173092-74-4)

EPD Data Specificity

Primary Data Year: 2023-2024

Manufacturing Specificity:

- ✗ Industry Average
- ✗ Manufacturer Average
- ✓ Facility Specific

Averaging:

Averaging was not conducted for this EPD

System Boundary

Production	A1	Raw material supply	✓
	A2	Transport	✓
	A3	Manufacturing	✓
Construction	A4	Transport to site	✓
	A5	Assembly / Install	✓
Use	B1	Use	✓
	B2	Maintenance	✓
	B3	Repair	✓
	B4	Replacement	✓
	B5	Refurbishment	✓
	B6	Operational Energy Use	✓
	B7	Operational Water Use	✓
End of Life	C1	Deconstruction	✓
	C2	Transport	✓
	C3	Waste Processing	✓
	C4	Disposal	✓
Benefits & Loads Beyond System Boundary	D	Recycling, Reuse Recovery Potential	✓

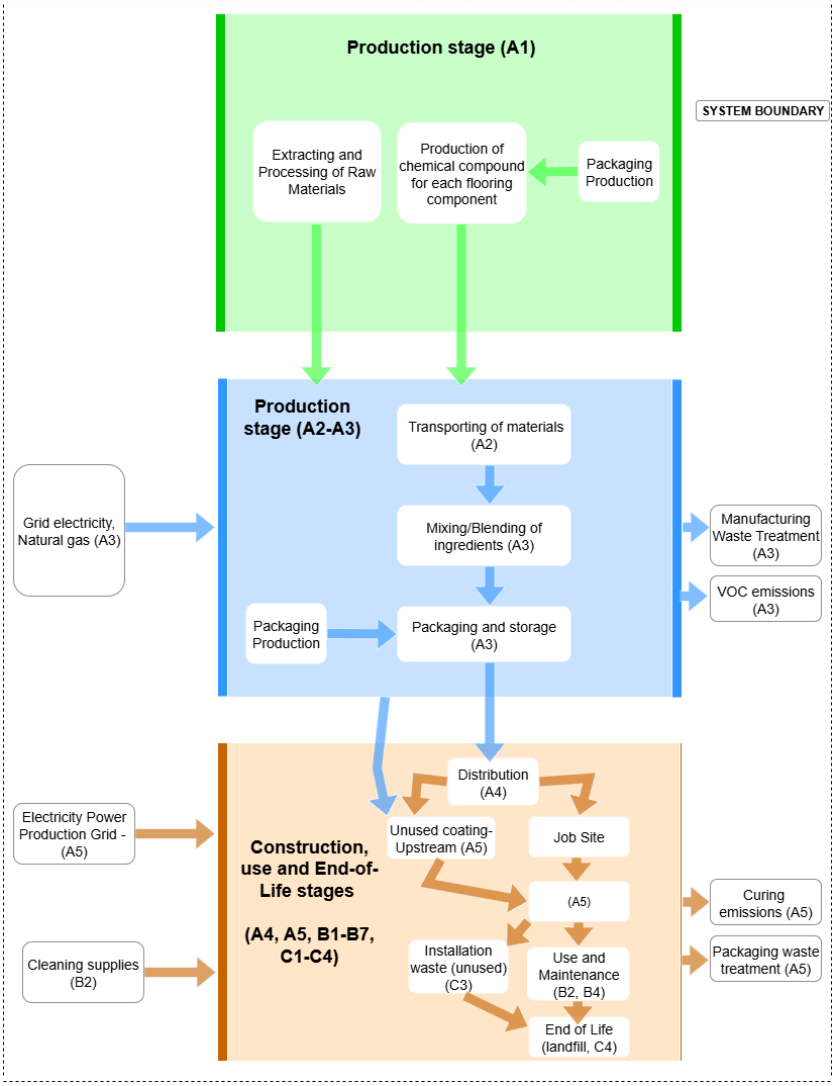
Note:

ND = Module not declared

Plants

Cherry Hill, NJ Cherry Hill, NJ, United States of America

Product Flow Diagram



Software And Database

LCA Software:	SimaPro v. 10.2	
LCI Foreground Database(s):	Ecoinvent v. 3.9.1	Cut-off by Classification
LCI Background Database(s):	Ecoinvent v. 3.9.1	Cut-off by Classification

A foreground LCI database is the database used to model the primary, site-specific data collected for this EPD. A background LCI database is the database used to model generic or non-specific data.

Data Quality

The quality of inventory data is evaluated based on several criteria, including precision, completeness, consistency, and representativeness.

Precision and completeness:

- Precision: The inventory data used in this study were either directly measured, calculated, or estimated based on primary data sources, ensuring high precision. Background data from ecoinvent v3 database also has documented precision to the extent available.
- Completeness: The product system's mass balance and inventory completeness were thoroughly checked. Some exclusions were made in line with the PCR requirements, such as personnel impacts, R&D activities, business travel, secondary packaging, point of sale infrastructure, and the coating applicator. However, no data was intentionally omitted.

Consistency and reproducibility:

- Consistency: Primary data were collected with a similar level of detail, while background data primarily came from the ecoinvent database, with other databases used only if necessary or more representative. The modeling approach and other methodological choices were applied consistently throughout the model.
- Reproducibility: This study ensures reproducibility by providing comprehensive disclosure of input-output data, dataset choices, and modeling approaches. A knowledgeable third party should be able to approximate the results using the same data and modeling methods.

Representativeness:

- Temporal: Primary data were collected for a 12 month period starting on June 2023 and ending on May 2024 to ensure the representativeness of post-consumer content. Secondary data from the ecoinvent v3 database is typically representative of recent years.
- Geographical: Primary data represent Stonhard's production facility in Cherry Hill, NJ, US. The use of country-specific data ensures high geographical representativeness, and proxy data were only used when country-specific data were unavailable..
- Technological: Both primary and secondary data were tailored to the specific technologies studied, ensuring high technological representativeness.

Life Cycle Module Description

Primary data were collected for a 12-month period from June 2023 and ending on May 2024 to ensure technical, geographical, and temporal representativeness. The manufacturing process starts with the reception of raw materials, typically in the form of chemical packages (cans, supersacks, bags, pails, among others). Next, the raw materials are mixed to forms resins and additives. After this step, the products are packaged and distributed to various distribution centers. Non-hazardous waste, consisting mainly of packaging waste materials, is sent for disposal, incineration, and/or recycling. Hazardous waste consisting of manufacturing & product losses and their disposal are modeled according to the PCR descriptions (solvent-based coatings are incinerated for energy recovery and water-based coatings are sent to landfill)

LCA Discussion

Allocation Procedure

Allocation of co-products was avoided, to the extent it was possible, based on the guidance given in ISO 14044:2006, and in ISO 21930:2017. Energy use and VOC emissions at the Cherry Hill, NJ factory were allocated by mass. Overhead burdens (building heating and corporate use consumption) were excluded using a square footage factor, that benchmarked and validated with process engineering models of resinous floor coatings production. The process

does not consume process water or generate wastewater. Solid waste was estimated using packaging masses and material losses and allocated following the polluter pays principle.

Cut-off Procedure

The system boundary was defined based on relevance to the goal of the study. For the raw material (A1) and process related inputs (A3), all available energy and material flow data have been included in the model. Exclusions allowed by the PCR such as secondary and tertiary packaging, were implemented, as well as overhead burdens such as building heating and corporate office consumption.

Renewable Electricity

Energy Attribute Certificates (EACs) such as Renewable Energy Certificates (RECs) or Power Purchase Agreements (PPAs) are included in the baseline reported results:	✕ No

Scenarios

Transport to the building/construction site (A4)

A4 Module

Fuel Type:	Diesel
Vehicle Type:	Truck and Trailer
Transport Distance:	1838 km
Capacity Utilization:	33 %
Packaging Mass:	0.01419 kg
Weight of products transported:	0.2409 kg
Capacity utilization volume factor:	1
Assumptions for scenario development:	Transport distance includes finished product to distribution center and distribution center to point of sale.

Installation in to the building/construction site (A5)

A5 Module

Installation Scrap Rate Assumed:	2 %
Product Lost per Declared/Functional Unit:	0.004534 kg
Mass of Packaging Waste Specified by Type:	0.01419 kg
Biogenic Carbon Contained in Packaging (kg C):	0.005173 kg
Assumptions for scenario development:	Impacts from 2% of unused product and packaging waste disposal

Use (B1)

B1 Module

Declared Product Properties:

The use stage begins after the resinous floor coating has fully cured; therefore, there are no significant impacts from the use of the installed product.

Maintenance (B2)

B2 Module

Maintenance Cycle:	18.33 Cycles/RSL 220 Cycles/ESL
Net Fresh Water Consumption Specified by Water Source and Fate:	0.83 m3
Ancillary Materials Specified by Type:	1.32 kg
Further assumptions for scenario development:	As per the PCR, "220 cleaning events shall be reported in module B2 of the LCA and subsequent EPD." The cleaning solution contains 2.5% of a nonionic surfactant.

Repair (B3)

B3 Module

Further assumptions for scenario development:	No repair impacts assumed as per PCR guidance

Replacement (B4)

B4 Module

Reference Service Life:	5 Years
Replacement Cycle:	11 (ESL/RSL)-1
Replacement of Worn Parts:	2.49 kg
Further assumptions for scenario development:	Values represent market service life scenario

Refurbishment (B5)

B5 Module

Further assumptions for scenario development:	No refurbishment impacts assumed as per PCR guidance

Operational Energy Use (B6) & Operational Water Use (B7)

B6 & B7 Modules

Further assumptions for scenario development:

No operational energy and water use as per PCR guidance

End of Life (C1 - C4)

C1 - C4 Modules

Collection Process

Collected with Mixed Construction Waste:	2.72067204 kg

Recovery

Landfill:	2.72067204 kg

Assumptions for scenario development:

Product landfilled at the end of life

Reuse, Recovery and / or Recycling Potentials & Relevant Scenario Information (D)

D Module

Recycling Rate of Product:	0 %
Recycled Content of Product:	0 %
Net Energy Benefit from Energy Recovery from Waste Treatment Declared as Export Energy in C3:	0 MJ
Net Energy Benefit from Thermal Energy Due to Treatment of Waste Declared as Exported Energy in C4:	0 MJ
Net Energy Benefit from Material Flow Declared in C3 for Energy Recovery:	0 MJ
Further assumptions for scenario development:	Impacts limited to recycling of packaging material

Results

Environmental Impact Assessment Results

IPCC AR5 GWP 100, TRACI 2.1

per 1 m2 of product of covered and protected flooring surface for a period of 60 years.

LCIA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks.

Market service lifetime

Impact Category	Unit	Method	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO2-eq	IPCC AR5 GWP 100	1.11e+0	4.68e-2	2.38e-2	ND	6.14e+0	ND	1.30e+1	ND	ND	ND	0	9.39e-3	0	5.52e-1	-1.03e-1
ODP	kg CFC-11 eq	TRACI 2.1	1.86e-7	8.03e-10	3.74e-9	ND	1.85e-7	ND	2.10e-6	ND	ND	ND	0	1.61e-10	0	1.51e-8	-2.83e-9
AP	kg SO2 eq	TRACI 2.1	4.60e-3	1.49e-4	9.55e-5	ND	2.34e-2	ND	5.33e-2	ND	ND	ND	0	3.00e-5	0	1.91e-3	-2.98e-4
EP	kg N eq	TRACI 2.1	5.83e-3	4.13e-5	1.18e-4	ND	2.87e-2	ND	6.59e-2	ND	ND	ND	0	8.27e-6	0	1.91e-3	-1.33e-4
POCP	kg O3 eq	TRACI 2.1	5.45e-2	3.42e-3	1.17e-3	ND	3.24e-1	ND	6.50e-1	ND	ND	ND	0	6.86e-4	0	3.10e-2	-5.83e-3

Note:

Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

Abbreviations:

GWP = Global Warming Potential, 100 years (may also be denoted as GWP-total, GWP-fossil (fossil fuels), GWP-biogenic (biogenic sources), GWP-luluc (land use and land use change)), ODP = Ozone Depletion Potential, AP = Acidification Potential, EP = Eutrophication Potential, SFP = Smog Formation Potential, POCP = Photochemical oxidant creation potential, ADP-Fossil = Abiotic depletion potential for fossil resources, ADP-Minerals&Metals = Abiotic depletion potential for non-fossil resources, WDP = Water deprivation potential, PM = Particular Matter Emissions, IRP = Ionizing radiation, human health, ETP-fw = Eco-toxicity (freshwater), HTP-c = Human toxicity (cancer), HTP-nc = Human toxicity (non-cancer), SQP = Soil quality index.

The estimated service life under this scenario is 5.0 years.

Comparisons cannot be made between product-specific or industry average EPDs at the design stage of a project, before a building has been specified. Comparisons may be made between product-specific or industry average EPDs at the time of product purchase when product performance and specifications have been established and serve as a functional unit for comparison. Environmental impact results shall be converted to a functional unit basis before any comparison is attempted. Any comparison of EPDs shall be subject to the requirements of ISO 21930 or EN 15804. EPDs are not comparative assertions and are either not comparable or have limited comparability when they have different system boundaries. EPDs are not comparative assertions and are either not comparable or have limited comparability when they have different system boundaries, are based on different product category rules or are missing relevant environmental impacts. Such comparison can be inaccurate, and could lead to erroneous selection of materials or products which are higher-impact, at least in some impact categories.

Technical service lifetime

Impact Category	Unit	Method	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO2-eq	IPCC AR5 GWP 100	1.11e+0	4.68e-2	2.38e-2	ND	6.14e+0	ND	1.30e+1	ND	ND	ND	0	9.39e-3	0	5.52e-1	-1.03e-1
ODP	kg CFC-11 eq	TRACI 2.1	1.86e-7	8.03e-10	3.74e-9	ND	1.85e-7	ND	2.10e-6	ND	ND	ND	0	1.61e-10	0	1.51e-8	-2.83e-9
AP	kg SO2 eq	TRACI 2.1	4.60e-3	1.49e-4	9.55e-5	ND	2.34e-2	ND	5.33e-2	ND	ND	ND	0	3.00e-5	0	1.91e-3	-2.98e-4
EP	kg N eq	TRACI 2.1	5.83e-3	4.13e-5	1.18e-4	ND	2.87e-2	ND	6.59e-2	ND	ND	ND	0	8.27e-6	0	1.91e-3	-1.33e-4
POCP	kg O3 eq	TRACI 2.1	5.45e-2	3.42e-3	1.17e-3	ND	3.24e-1	ND	6.50e-1	ND	ND	ND	0	6.86e-4	0	3.10e-2	-5.83e-3

Note:

Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

Abbreviations:

GWP = Global Warming Potential, 100 years (may also be denoted as GWP-total, GWP-fossil (fossil fuels), GWP-biogenic (biogenic sources), GWP-luluc (land use and land use change)), ODP = Ozone Depletion Potential, AP = Acidification Potential, EP = Eutrophication Potential, SFP = Smog Formation Potential, POCP = Photochemical oxidant creation potential, ADP-Fossil = Abiotic depletion potential for fossil resources, ADP-Minerals&Metals = Abiotic depletion potential for non-fossil resources, WDP = Water deprivation potential, PM = Particular Matter Emissions, IRP = Ionizing radiation, human health, ETP-fw = Eco-toxicity (freshwater), HTP-c = Human toxicity (cancer), HTP-nc = Human toxicity (non-cancer), SQP = Soil quality index.

The estimated service life under this scenario is 5.0 years.

Comparisons cannot be made between product-specific or industry average EPDs at the design stage of a project, before a building has been specified. Comparisons may be made between product-specific or industry average EPDs at the time of product purchase when product performance and specifications have been established and serve as a functional unit for comparison. Environmental impact results shall be converted to a functional unit basis before any comparison is attempted. Any comparison of EPDs shall be subject to the requirements of ISO 21930 or EN 15804. EPDs are not comparative assertions and are either not comparable or have limited comparability when they have different system boundaries. EPDs are not comparative assertions and are either not comparable or have limited comparability when they have different system boundaries, are based on different product category rules or are missing relevant environmental impacts. Such comparison can be inaccurate, and could lead to erroneous selection of materials or products which are higher-impact, at least in some impact categories.

Resource Use Indicator

per 1 m2 of product of covered and protected flooring surface for a period of 60 years.

Market service lifetime

Indicator	Unit	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
RPRE	MJ	3.92e+0	8.62e-3	7.86e-2	ND	5.33e+1	ND	4.41e+1	ND	ND	ND	0	1.73e-3	0	2.15e+0	-5.18e-2
RPRM	MJ	1.43e-1	0	2.87e-3	ND	0	ND	1.61e+0	ND	ND	ND	0	0	0	0	0
RPRT	MJ	4.21e+0	8.62e-3	8.43e-2	ND	5.33e+1	ND	4.73e+1	ND	ND	ND	0	1.73e-3	0	2.15e+0	-5.18e-2
NRPRE	MJ	1.83e+1	6.80e-1	3.81e-1	ND	8.81e+1	ND	2.13e+2	ND	ND	ND	0	1.36e-1	0	6.17e+0	-1.44e+0
NRPRM	MJ	1.88e-4	0	3.77e-6	ND	0	ND	2.11e-3	ND	ND	ND	0	0	0	0	0
NRPRT	MJ	1.83e+1	6.80e-1	3.82e-1	ND	8.81e+1	ND	2.13e+2	ND	ND	ND	0	1.36e-1	0	6.17e+0	-1.44e+0
ADPF	MJ	2.17e+0	9.55e-2	4.54e-2	ND	1.03e+1	ND	2.54e+1	ND	ND	ND	0	1.92e-2	0	3.80e-1	-1.89e-1
FW	m3	2.40e-2	8.88e-5	4.83e-4	ND	1.07e+0	ND	2.70e-1	ND	ND	ND	0	1.78e-5	0	2.66e-3	-3.06e-4
RE	MJ	0	0	0	ND	0	ND	0	ND	ND	ND	0	0	0	0	0
NRSF	MJ	0	0	0	ND	0	ND	0	ND	ND	ND	0	0	0	0	0
RSF	MJ	0	0	0	ND	0	ND	0	ND	ND	ND	0	0	0	0	0
SM	kg	0	0	0	ND	0	ND	0	ND	ND	ND	0	0	0	0	3.38e-3

Note:

Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

Abbreviations:

RPRE or PERE = Renewable primary resources used as energy carrier (fuel), RPRM or PERM = Renewable primary resources with energy content used as material, RPRT or PERT = Total use of renewable primary resources with energy content, NRPRE or PENRE = Non-renewable primary resources used as an energy carrier (fuel), NRPRM or PENRM = Non-renewable primary resources with energy content used as material, NRPRT or PENRT = Total non-renewable primary resources with energy content, SM = Secondary materials, RSF = Renewable secondary fuels, NRSF = Non-renewable secondary fuels, RE = Recovered energy, ADPF = Abiotic depletion potential, FW = Use of net freshwater resources, VOCs = Volatile Organic Compounds.

The estimated service life under this scenario is 5.0 years.

Technical service lifetime

Indicator	Unit	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
RPRE	MJ	3.92e+0	8.62e-3	7.86e-2	ND	5.33e+1	ND	4.41e+1	ND	ND	ND	0	1.73e-3	0	2.15e+0	-5.18e-2
RPRM	MJ	1.43e-1	0	2.87e-3	ND	0	ND	1.61e+0	ND	ND	ND	0	0	0	0	0
RPRT	MJ	4.21e+0	8.62e-3	8.43e-2	ND	5.33e+1	ND	4.73e+1	ND	ND	ND	0	1.73e-3	0	2.15e+0	-5.18e-2
NRPRE	MJ	1.83e+1	6.80e-1	3.81e-1	ND	8.81e+1	ND	2.13e+2	ND	ND	ND	0	1.36e-1	0	6.17e+0	-1.44e+0
NRPRM	MJ	1.88e-4	0	3.77e-6	ND	0	ND	2.11e-3	ND	ND	ND	0	0	0	0	0
NRPRT	MJ	1.83e+1	6.80e-1	3.82e-1	ND	8.81e+1	ND	2.13e+2	ND	ND	ND	0	1.36e-1	0	6.17e+0	-1.44e+0
ADPF	MJ	2.17e+0	9.55e-2	4.54e-2	ND	1.03e+1	ND	2.54e+1	ND	ND	ND	0	1.92e-2	0	3.80e-1	-1.89e-1
FW	m3	2.40e-2	8.88e-5	4.83e-4	ND	1.07e+0	ND	2.70e-1	ND	ND	ND	0	1.78e-5	0	2.66e-3	-3.06e-4
RE	MJ	0	0	0	ND	0	ND	0	ND	ND	ND	0	0	0	0	0
NRSF	MJ	0	0	0	ND	0	ND	0	ND	ND	ND	0	0	0	0	0
RSF	MJ	0	0	0	ND	0	ND	0	ND	ND	ND	0	0	0	0	0
SM	kg	0	0	0	ND	0	ND	0	ND	ND	ND	0	0	0	0	3.38e-3

Note:

Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

Abbreviations:

RPRE or PERE = Renewable primary resources used as energy carrier (fuel), RPRM or PERM = Renewable primary resources with energy content used as material, RPRT or PERT = Total use of renewable primary resources with energy content, NRPRE or PENRE = Non-renewable primary resources used as an energy carrier (fuel), NRPRM or PENRM = Non-renewable primary resources with energy content used as material, NRPRT or PENRT = Total non-renewable primary resources with energy content, SM = Secondary materials, RSF = Renewable secondary fuels, NRSF = Non-renewable secondary fuels, RE = Recovered energy, ADPF = Abiotic depletion potential, FW = Use of net freshwater resources, VOCs = Volatile Organic Compounds.

The estimated service life under this scenario is 5.0 years.

Waste and Output Flow Indicators

per 1 m2 of product of covered and protected flooring surface for a period of 60 years.

Market service lifetime

Indicator	Unit	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	4.53e-3	0	9.07e-5	ND	0	ND	5.09e-2	ND	ND	ND	0	0	0	2.72e+0	0
NHWD	kg	6.62e-3	0	3.96e-4	ND	0	ND	7.72e-2	ND	ND	ND	0	0	0	0	0
MR	kg	9.27e-3	0	1.29e-2	ND	0	ND	2.44e-1	ND	ND	ND	0	0	0	0	0
MER	kg	4.46e-5	0	1.21e-3	ND	0	ND	1.38e-2	ND	ND	ND	0	0	0	0	0
ILLRW	m3	0	0	0	ND	0	ND	0	ND	ND	ND	0	0	0	0	0
HLLRW	m3	0	0	0	ND	0	ND	0	ND	ND	ND	0	0	0	0	0
CRU	kg	0	0	0	ND	0	ND	0	ND	ND	ND	0	0	0	0	0
EE	MJ	1.37e-3	0	2.23e-2	ND	0	ND	2.60e-1	ND	ND	ND	0	0	0	0	0

Note:

Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

Abbreviations:

HWD = Hazardous waste disposed, NHWD = Non-hazardous waste disposed, RWD = Radioactive waste disposed, HLRW = High-level radioactive waste, ILLRW = Intermediate- and low-level radioactive waste, CRU = Components for re-use, MFR or MR = Materials for recycling, MER = Materials for energy recovery, MNER = Materials for incineration, no energy recovery, EE or EEE = Recovered energy exported from the product system, EET = Exported thermal energy.

The estimated service life under this scenario is 5.0 years. Significant data limitations currently exist within the LCI data used to generate waste metrics for Life Cycle Assessments and Environmental Product Declarations. The waste metrics were calculated in a way conformant with the requirements of ISO 21930:2017, but these values represent rough estimates and are for informational purposes only. As such, no decisions regarding actual cradle-grave waste performance between products should be derived from these reported values

Technical service lifetime

Indicator	Unit	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	4.53e-3	0	9.07e-5	ND	0	ND	5.09e-2	ND	ND	ND	0	0	0	2.72e+0	0
NHWD	kg	6.62e-3	0	3.96e-4	ND	0	ND	7.72e-2	ND	ND	ND	0	0	0	0	0
MR	kg	9.27e-3	0	1.29e-2	ND	0	ND	2.44e-1	ND	ND	ND	0	0	0	0	0
MER	kg	4.46e-5	0	1.21e-3	ND	0	ND	1.38e-2	ND	ND	ND	0	0	0	0	0
ILLRW	m3	0	0	0	ND	0	ND	0	ND	ND	ND	0	0	0	0	0
HLLRW	m3	0	0	0	ND	0	ND	0	ND	ND	ND	0	0	0	0	0
CRU	kg	0	0	0	ND	0	ND	0	ND	ND	ND	0	0	0	0	0
EE	MJ	1.37e-3	0	2.23e-2	ND	0	ND	2.60e-1	ND	ND	ND	0	0	0	0	0

Note:

Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

Abbreviations:

HWD = Hazardous waste disposed, NHWD = Non-hazardous waste disposed, RWD = Radioactive waste disposed, HLRW = High-level radioactive waste, ILLRW = Intermediate- and low-level radioactive waste, CRU = Components for re-use, MFR or MR = Materials for recycling, MER = Materials for energy recovery, MNER = Materials for incineration, no energy recovery, EE or EEE = Recovered energy exported from the product system, EET = Exported thermal energy.

The estimated service life under this scenario is 5.0 years. Significant data limitations currently exist within the LCI data used to generate waste metrics for Life Cycle Assessments and Environmental Product Declarations. The waste metrics were calculated in a way conformant with the requirements of ISO 21930:2017, but these values represent rough estimates and are for informational purposes only. As such, no decisions regarding actual cradle-grave waste performance between products should be derived from these reported values

Carbon Emissions and Removals

per 1 m2 of product of covered and protected flooring surface for a period of 60 years.

Market service lifetime

Indicator	Unit	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Bio Carbon Removal from Product	kg CO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio Carbon Emission from Product	kg CO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio Carbon Removal from Packaging	kg CO2	-1.90e-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio Carbon Emission from Packaging	kg CO2	0	0	1.90e-2	0	0	0	0	0	0	0	0	0	0	0	0
Bio Carbon Emission from Waste during Manufacturing (renewable source)	kg CO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Calcination Carbon Removal	kg CO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carbonation Carbon Emission	kg CO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carbon Emission from Waste during Manufacturing (non-renewable source)	kg CO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note:

Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

Abbreviations:

BCRP = Biogenic Carbon Removal from Product, BCEP = Biogenic Carbon Emission from Product, BCRK = Biogenic Carbon Removal from Packaging, BCEK = Biogenic Carbon Emission from Packaging, BCEW = Biogenic Carbon Emission from Combustion of Waste from Renewable Sources Used in Production Processes, CCE = Calcination Carbon Emissions, CCR = Carbonation Carbon Removals, CWNR = Carbon Emissions from Combustion of Waste from Non-Renewable Sources used in Production Processes, GWP-luc = Carbon Emissions from Land-use Change.

The estimated service life under this scenario is 5.0 years.

Technical service lifetime

Indicator	Unit	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Bio Carbon Removal from Product	kg CO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio Carbon Emission from Product	kg CO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio Carbon Removal from Packaging	kg CO2	-1.90e-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio Carbon Emission from Packaging	kg CO2	0	0	1.90e-2	0	0	0	0	0	0	0	0	0	0	0	0
Bio Carbon Emission from Waste during Manufacturing (renewable source)	kg CO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Calcination Carbon Removal	kg CO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carbonation Carbon Emission	kg CO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carbon Emission from Waste during Manufacturing (non-renewable source)	kg CO2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Note:

Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

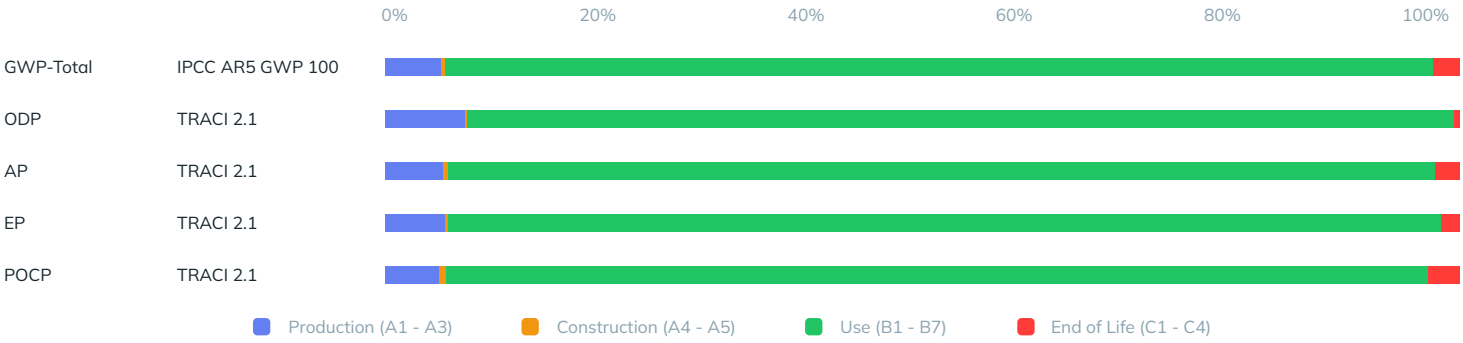
Abbreviations:

BCRP = Biogenic Carbon Removal from Product, BCEP = Biogenic Carbon Emission from Product, BCRK = Biogenic Carbon Removal from Packaging, BCEK = Biogenic Carbon Emission from Packaging, BCEW = Biogenic Carbon Emission from Combustion of Waste from Renewable Sources Used in Production Processes, CCE = Calcination Carbon Emissions, CCR = Carbonation Carbon Removals, CWNR = Carbon Emissions from Combustion of Waste from Non-Renewable Sources used in Production Processes, GWP-luc = Carbon Emissions from Land-use Change.

The estimated service life under this scenario is 5.0 years.

Interpretation

Raw materials are sourced from suppliers, transported to manufacturing facilities, and mixed to produce products. The product stage (A1-A3) has the highest environmental impact, especially due to raw material production and energy use, impact amplified in the use phase (B4) from recoatings. The Market scenario shows higher use-phase impacts due to a shorter estimatedservice life (ESL). End-of-life impacts are relatively low, as products are assumed to be landfilled with building demolition waste. Switching to renewable energy is advised for products with high manufacturing energy demands. The manufacturer should explore lower-impact raw materials and work with suppliers using sustainable methods or renewable energy to enhance product sustainability.



Additional Environmental Information

None

References

ISO 14025, “Environmental labels and declarations -- Type III environmental declarations -- Principles and procedures”, ISO14025:2006
ISO 21930, Sustainability in buildings and civil engineering works — Core rules for environmental product declarations of construction products and services. ISO21930:2017
NSF International, Product Category Rules for Environmental Product Declarations for Resinous Floor Coatings, NSF International:2023.
ISO 14044, “Environmental management - Life cycle assessment - Requirements and guidelines”, ISO14044:2006.
Ecoinvent v3.9.1, December 2022. The ecoinvent database: Overview and methodology, Data quality guideline for the ecoinvent database version 3, www.ecoinvent.org
Bare, J. C. TRACI 2.0 - The Tool for the Reduction and Assessment of Chemical and other environmental Impacts. CLEAN TECHNOLOGIES AND ENVIRONMENTAL POLICY. Springer-Verlag, New York, NY.
SmartEPD. (2025). *General Program Instructions (Version 2.0)*. **https://smartepd.com/assets/SmartEPD_GPIs_v2.0_03-11-2025.4d2a6ff1.pdf**