



Environmental Product Declaration

IN ACCORDANCE WITH ISO 14025:2006 AND ISO 21930:2017

Program Operator: Smart EPD®

www.smartepd.com



STONHARD

SmartEPD-2025-067-0481-01

Stonclad UR

Date of Issue

May 16, 2025

Expiration date

May 16, 2030

Last updated

Aug 25, 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

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stonhard.com



Product Name:	Stonclad UR
Functional Unit:	1 m2 of covered and protected flooring surface for a period of 60 years
Declaration Number:	SmartEPD-2025-067-0481-01
Date of Issue:	May 16, 2025
Expiration:	May 16, 2030
Last updated:	August 25, 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/about-us/who-we-are/>

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 14025:2006 and ISO 21930:2017

PCR:	NSF PCR for Resinous Floor Coatings v.1e Date of issue: December 17, 2018 Valid until: December 31, 2025
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:	🌐 Juan David Villegas ✉️ juan@parqhq.com
EPD Program Operator:	📄 Smart EPD ✉️ info@smarteprd.com 🌐 www.smarteprd.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: 🌐 Rifat Karim 📄 Independent Consultant ✉️ rifat.chimique@gmail.com Independent external verification of EPD, according to ISO 14025 and reference PCR(s): 🌐 Rifat Karim 📄 Independent Consultant ✉️ rifat.chimique@gmail.com

External

External

Product Information

Functional Unit:	1 m2 of covered and protected flooring surface for a period of 60 years
Mass:	9.3754 kg
Reference Service Life:	60 Years
Product Specificity:	✗ Product Average ✓ Product Specific

Product Description

Stonclad UR is a four-component, trowel applied, polyurethane mortar system. Stonclad UR consists of a urethane-urea binder, pigments, and graded quartz aggregates. Stonclad UR can be applied at thickness ranging from 1/8in/3 mm to 1/4in/6 mm depending on application requirements. Stonclad UR is a high-impact-resistant mortar which exhibits excellent abrasion, thermal-shock, thermal-cycling, and chemical-resistant characteristics making it ideal for the food and beverage industry as well as any other applications requiring these properties.

Further information can be found at: <https://www.stonhard.com/products/stonclad/ur/>

Product Specifications

Product Classification Codes:	EC3 - Finishes -> Flooring -> OtherFlooring
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Material Composition

Material/Component Category	Origin	% Mass
Aggregate		68 - 100
Isocyanate		< 10
Polyol		< 10
Water		< 10

Packaging Material	Origin	kg Mass
Aluminium foil		1.2
Supersack		0.13

Biogenic Carbon Content	kg C per m2 of covered and protected flooring surface for a period of 60 years
Biogenic carbon content in product	0
Biogenic carbon content in accompanying packaging	0

Hazardous Materials
Diphenylmethane-diisocyanate, isomers and homologues (9016-87-9)
4,4'-Methylenediphenyl diisocyanate (101-68-8)
castor oil (8001-79-4)
isodecyl benzoate (131298-44-7)
dibutyl sebacate (109-43-3)
barium sulfate (7727-43-7)
titanium dioxide (13463-67-7)
hydrated, amorphous silica (112926-00-8)
carbon black (1333-86-4)
quartz (silicon dioxide) (14808-60-7)
portland cement (65997-15-1)
calcium hydroxide (1305-62-0)

EPD Data Specificity

Primary Data Year:June 1st 2023 to May 31st 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	✓

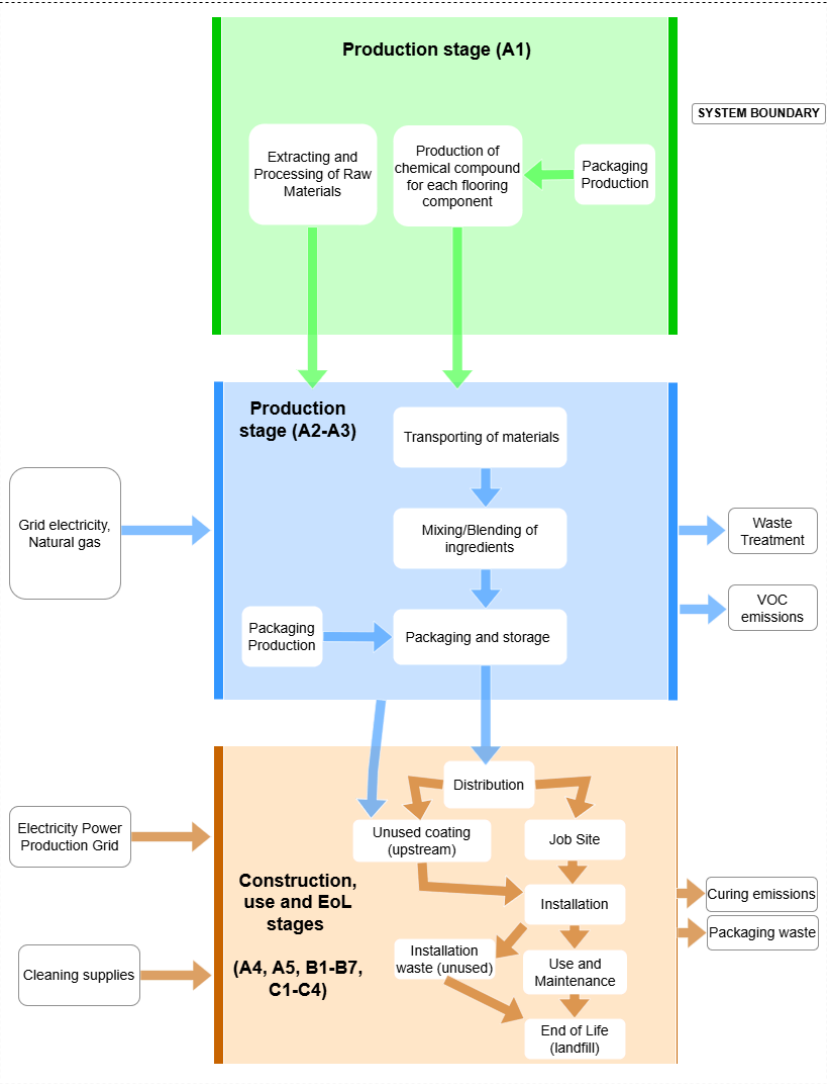
Note:

ND = Module not declared

Plants

- Stonhard Fort Wayne Fort Wayne, IN, USA
- Stonhard Maple Shade Maple Shade, NJ, USA

Product Flow Diagram



Software And Database

- LCA Software:

SimaPro v. 9.5
- LCI Foreground Database(s):

Ecoinvent v. 3.9.1

LCI Background Database(s):

 Ecoinvent v. 3.9.1

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 facilities in Mapple Shade, NJ, US. Where applicable, differences in electric grid mix were considered using appropriate secondary data. 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 consist on manufacturing, product losses and its disposal is model according to 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, 4.3., in ISO 21930:2017. Energy use and VOC emissions at the Maple Shade, 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

do 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

Results

Environmental Impact Assessment Results

IPCC AR5 GWP 100, TRACI 2.1

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

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

Market

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	2.77e+1	1.94e-1	6.14e-1	ND	1.23e+1	ND	5.71e+1	ND	ND	ND	0	9.71e-2	2.04e+0	5.71e+0	-3.18e+1
ODP	kg CFC-11 eq	TRACI 2.1	9.32e-7	3.33e-9	1.89e-8	ND	3.69e-7	ND	1.91e-6	ND	ND	ND	0	1.67e-9	1.39e-8	1.56e-7	-9.78e-7
AP	kg SO2 eq	TRACI 2.1	1.47e-1	6.20e-4	2.98e-3	ND	4.68e-2	ND	3.00e-1	ND	ND	ND	0	3.10e-4	1.34e-3	1.98e-2	-1.77e-1
EP	kg N eq	TRACI 2.1	8.39e-2	1.71e-4	1.70e-3	ND	5.75e-2	ND	1.72e-1	ND	ND	ND	0	8.55e-5	8.64e-4	1.97e-2	-8.52e-2
POCP	kg O3 eq	TRACI 2.1	1.77e+0	1.42e-2	3.68e-2	ND	6.48e-1	ND	3.65e+0	ND	ND	ND	0	7.10e-3	1.76e-2	3.21e-1	-1.99e+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:

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 = Particulate 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 20.0 years.

Tech

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	2.77e+1	1.94e-1	6.14e-1	ND	1.23e+1	ND	2.85e+1	ND	ND	ND	0	6.47e-2	1.36e+0	3.81e+0	-2.13e+1
ODP	kg CFC-11 eq	TRACI 2.1	9.32e-7	3.33e-9	1.89e-8	ND	3.69e-7	ND	9.54e-7	ND	ND	ND	0	1.11e-9	9.29e-9	1.04e-7	-6.53e-7
AP	kg SO2 eq	TRACI 2.1	1.47e-1	6.20e-4	2.98e-3	ND	4.68e-2	ND	1.50e-1	ND	ND	ND	0	2.06e-4	8.90e-4	1.32e-2	-1.18e-1
EP	kg N eq	TRACI 2.1	8.39e-2	1.71e-4	1.70e-3	ND	5.75e-2	ND	8.58e-2	ND	ND	ND	0	5.70e-5	5.76e-4	1.31e-2	-5.68e-2
POCP	kg O3 eq	TRACI 2.1	1.77e+0	1.42e-2	3.68e-2	ND	6.48e-1	ND	1.82e+0	ND	ND	ND	0	4.73e-3	1.17e-2	2.14e-1	-1.33e+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:

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 30.0 years.

Resource Use Indicator

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

Market

Indicator	Unit	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
RPRE	MJ	2.02e+1	2.69e-2	4.05e-1	ND	6.11e+0	ND	4.12e+1	ND	ND	ND	0	1.34e-2	4.28e-2	1.45e+0	-2.83e+1
RPRM	MJ	1.79e+1	8.89e-3	3.59e-1	ND	1.01e+2	ND	3.66e+1	ND	ND	ND	0	4.44e-3	1.09e-2	2.08e+1	-3.39e+0
RPRT	MJ	3.81e+1	3.58e-2	7.64e-1	ND	1.07e+2	ND	7.78e+1	ND	ND	ND	0	1.79e-2	5.36e-2	2.23e+1	-3.17e+1
NRPRE	MJ	3.16e+2	2.82e+0	6.48e+0	ND	1.76e+2	ND	6.51e+2	ND	ND	ND	0	1.41e+0	9.13e+0	6.38e+1	-3.04e+2
NRPRM	MJ	8.97e-3	4.86e-5	1.82e-4	ND	2.26e-2	ND	1.84e-2	ND	ND	ND	0	2.43e-5	3.55e-5	3.02e-3	-8.59e-3
NRPRT	MJ	3.16e+2	2.82e+0	6.48e+0	ND	1.76e+2	ND	6.51e+2	ND	ND	ND	0	1.41e+0	9.13e+0	6.38e+1	-3.04e+2
ADPF	MJ	2.67e+1	3.96e-1	5.56e-1	ND	2.07e+1	ND	5.53e+1	ND	ND	ND	0	1.98e-1	1.36e+0	3.93e+0	-1.74e+1
FW	m3	2.22e-1	3.69e-4	4.53e-3	ND	2.14e+0	ND	4.54e-1	ND	ND	ND	0	1.84e-4	9.03e-4	2.75e-2	-2.01e-1
RE	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
NRSF	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	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:

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 20.0 years.

Tech

Indicator	Unit	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
RPRE	MJ	2.02e+1	2.69e-2	4.05e-1	ND	6.11e+0	ND	2.06e+1	ND	ND	ND	0	8.95e-3	2.85e-2	9.69e-1	-1.89e+1
RPRM	MJ	1.79e+1	8.89e-3	3.59e-1	ND	1.01e+2	ND	1.83e+1	ND	ND	ND	0	2.96e-3	7.26e-3	1.39e+1	-2.26e+0
RPRT	MJ	3.81e+1	3.58e-2	7.64e-1	ND	1.07e+2	ND	3.89e+1	ND	ND	ND	0	1.19e-2	3.58e-2	1.48e+1	-2.12e+1
NRPRE	MJ	3.16e+2	2.82e+0	6.48e+0	ND	1.76e+2	ND	3.26e+2	ND	ND	ND	0	9.40e-1	6.09e+0	4.25e+1	-2.04e+2
NRPRM	MJ	8.97e-3	4.86e-5	1.82e-4	ND	2.26e-2	ND	9.20e-3	ND	ND	ND	0	1.62e-5	2.37e-5	2.01e-3	-5.73e-3
NRPRT	MJ	3.16e+2	2.82e+0	6.48e+0	ND	1.76e+2	ND	3.26e+2	ND	ND	ND	0	9.40e-1	6.09e+0	4.25e+1	-2.04e+2
ADPF	MJ	2.67e+1	3.96e-1	5.56e-1	ND	2.07e+1	ND	2.77e+1	ND	ND	ND	0	1.32e-1	9.07e-1	2.62e+0	-1.18e+1
FW	m3	2.22e-1	3.69e-4	4.53e-3	ND	2.14e+0	ND	2.27e-1	ND	ND	ND	0	1.23e-4	6.02e-4	1.83e-2	-1.34e-1
RE	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
NRSF	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	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:

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 30.0 years.

Waste and Output Flow Indicators

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

Market

Indicator	Unit	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	1.88e-1	0	3.75e-3	ND	0	ND	3.83e-1	ND	ND	ND	0	0	5.63e-1	2.81e+1	0
NHWD	kg	6.90e-2	0	6.38e-1	ND	0	ND	1.41e+0	ND	ND	ND	0	0	0	0	0
MR	kg	1.26e-2	0	6.95e-1	ND	0	ND	1.42e+0	ND	ND	ND	0	0	0	0	-2.12e+0
MER	kg	0	0	0	ND	0	ND	0	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

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 20.0 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

Tech

Indicator	Unit	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	1.88e-1	0	3.75e-3	ND	0	ND	1.91e-1	ND	ND	ND	0	0	3.75e-1	1.88e+1	0
NHWD	kg	6.90e-2	0	6.38e-1	ND	0	ND	7.07e-1	ND	ND	ND	0	0	0	0	0
MR	kg	1.26e-2	0	6.95e-1	ND	0	ND	7.08e-1	ND	ND	ND	0	0	0	0	-1.41e+0
MER	kg	0	0	0	ND	0	ND	0	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

Note:

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

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Carbon Emissions and Removals

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

Tech

Indicator	Unit	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Bio Carbon Removal from Product	kg C	-2.19e-1	0	-4.30e-3	0	0	0	-2.19e-1	0	0	0	0	0	0	0	0
Bio Carbon Emission from Product	kg C	4.30e-3	0	0	0	0	0	0	0	0	0	0	0	8.60e-3	4.30e-1	0
Bio Carbon Removal from Packaging	kg C	-1.90e-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio Carbon Emission from Packaging	kg C	1.90e-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio Carbon Emission from Waste during Manufacturing (renewable source)	kg C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Calcination Carbon Removal	kg C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carbonation Carbon Emission	kg C	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 C	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 30.0 years.

Market

Indicator	Unit	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Bio Carbon Removal from Product	kg C	-2.19e-1	0	-4.30e-3	0	0	0	-4.39e-1	0	0	0	0	0	0	0	0
Bio Carbon Emission from Product	kg C	4.30e-3	0	0	0	0	0	0	0	0	0	0	0	1.29e-2	6.45e-1	0
Bio Carbon Removal from Packaging	kg C	-1.90e-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio Carbon Emission from Packaging	kg C	1.90e-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bio Carbon Emission from Waste during Manufacturing (renewable source)	kg C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Calcination Carbon Removal	kg C	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carbonation Carbon Emission	kg C	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 C	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.

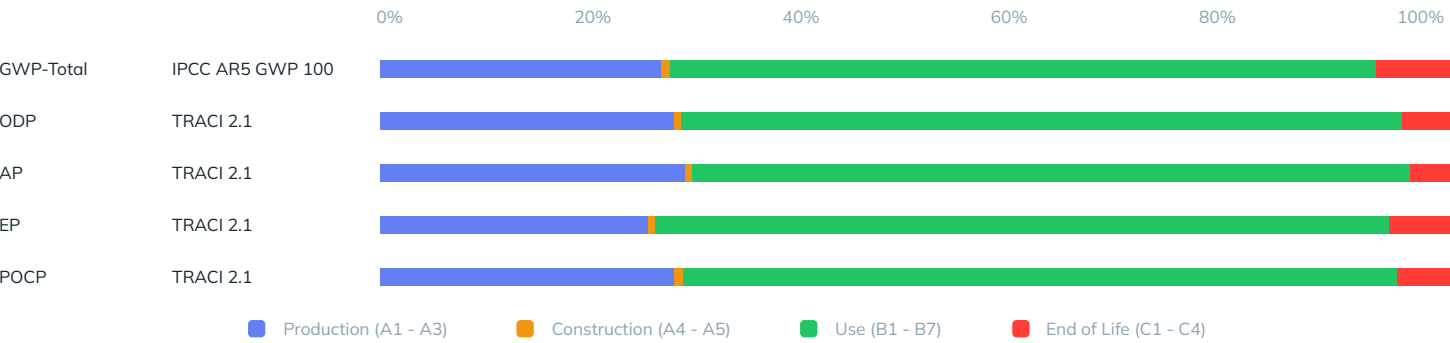
Abbreviations:

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 20.0 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 estimated service 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

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