SuMPO EPD JAPAN VERIFIED

SuMPO EPD Japan

Third party verified

Environmental Product Declaration

In conformance with

ISO14025 | ISO14040 | ISO14044

KANO CORPORATION

Terrawell （interior tiles）



The products covered are interior tiles.

Registration number	Verification date	Publication date	Expiration date	EPD type
SuMPO-EPD-2601-84-1	2026/1/19	2026/1/29	2031/1/18	Single Product EPD

* First publication date

Additional standards in conformance

ISO21930:2017

EPD can be updated or withdrawn during the validity period. To confirm the validity of this EPD, check the following website: https://ecoleaf-label.jp/epd/search

Environmental Product Declaration for Terrawell

●General Information

＞Programme

Programme name	SuMPO EPD Japan
Programme operator	Sustainable Management Promotion Organization (SuMPO)
Address	KANDA SQUARE GATE 4F, 14-8, Uchikanda 1-chome, Chiyoda-ku, Tokyo, 101-0047, Japan
Website	https://ecoleaf-label.jp

＞GPI and PCR

GPI	SuMPO EPD Japan General Program Instructions v.2.1.1
PCR name	Building materials and construction products
PCR registration number	SuMPO-PCR-01000-2-0-1
PCR publication date	2025/3/31
PCR review panel chair	Toshiharu Ikaga
PCR valid until	2030/3/30
PCR issuer	Sustainable Management Promotion Organization (SuMPO)

＞Verification

Verification Type	Third-party verification in conformance with ISO14025 and ISO21930:2017		
	☐ Internal	■ External	
	■ Third-party verification by individual verifier	☐ Third-party verification by verification body	☐ Third-party verification by system certification
Verifier	Eiji Kimura (Boken Quality Evaluation Institute (General Incorporated Foundation))		

＞Standards

Standards in conformance with;	■ ISO14040:2006	■ ISO14044:2006	☐ ISO14067:2018
	■ ISO14025:2006	☐ ISO21930:2007	■ ISO21930:2017
	☐ EN15804+A2	☐ EN50693:2019	☐ ISO/IEC63366:2025

EPD owner is responsible for the information contained in the EPD and for environmental claims related to the information. For any inquiries or requests regarding the content of the EPD, please contact the EPD owner.

EPDs are comparable only if they comply with the same standards, use the same sub-PCR where applicable, include all relevant information modules and are based on equivalent scenarios with respect to the context of construction works. Comparability of EPDs is limited to those applying a functional unit.

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

When using weighted averages for calculation, the life cycle impact assessment results, life cycle inventory analysis-related information, waste-related information, and environmental information on output flows do not correspond to information about a specific product.

●EPD Owner's Information

Name of company and dept.	Kano Corporation Sustainable Materials Division
Address	1647-3 Kasahara-cho, Tajimi City, Gifu Prefecture, JAPAN
Contact	+81-572-43-3161
LCA practitioner	Kano Corporation (Kazuhiro Fukuda)
Company description	Planning and sales of interior and exterior tiles, and warehousing business.

Environmental Product Declaration for Terrawell

Product Information

Product name		Terrawell （interior tiles）		
Product /model number		Terrawell		
Product sepcification	Function	The structure of the building's interior using tiles		
	Mass	1.12 kg	Conversion factor	1.12 kg
	Applications	The construction of the building's interior using tiles		
	TS*	-		
Service life	Service life	about 15 years		
	In-use conditions	Use in a general environment inside a building		
	reference	According to the National Tax Agency's statutory useful life, it falls under the category of building fixtures.		
Manufacturing site(s)		Head office factory (Tajimi City, Gifu Prefecture)		
Product description		Terrawell is a tile that hardens and stabilizes by absorbing CO_2 from the air. It is a non-fired tile made from natural materials. It also contributes to deodorizing and		
Website		https://terrawell.jp/		

* TS: technical specifications,

Product Content

Product components	Propotion (%)	Mass (unit)	
Alkaline inorganic materials	32.5	0.33	kg
carbonate minerals	43.5	0.44	kg
biotite rhyolite	12.5	0.13	kg
clay	5.0	0.05	kg
Porous aluminosilicate minerals	5.5	0.06	kg
porous mineral clay	1.0	0.01	kg
Packaging materials	Propotion (%)	Mass (unit)	
cardboard	100.0	0.12	kg

Biogenic Carbon Content

Item	Content (kg-C)	Content (kg-CO_2 eq)
Biogenic carbon content per product	-	-
Biogenic carbon content in packaging	0.0515	0.189

●LCA-related Information

＞EPD Type Information

EPD type	Product type	■ Single product EPD	☐ Multiple products EPD	☐ Industry-wide EPD	
	Site type	■ Single site	☐ Multiple sites		
	Value	■ Specific	☐ Average	☐ Representative	☐ Worst case
Geographical coverage		global			
Description of representativeness for multiple-products/sites EPD		-			
Description of variation for multiple-products/sites EPD		-			
Description of products covered in the multiple products EPD		-			

＞LCA Information

Declared unit		1kg	
Mass per declared unit (Conversion factor to mass)		-	
Reference flow (number of products required to fulfil the function)		-	
System boundary		■ Cradle-to-Gate	☐ Cradle-to-Gate with options ☐ Cradle-to-Grave
LCA software		Cloud version MiLCA ver.1.2.1.9	
LCI database		AIST-IDEA ver3.5.1	
Characterization model		Climate Change: IPCC, 2021, Other Environmental Areas: LIME2	
Use of other background data		-	
Secondary data quality		The calculations were performed using data that met the secondary data quality requirements specified by GPI. The data quality evaluation was conducted in accordance with ISO 14044:2006 (Environmental management – Life cycle assessment – Requirements and guidelines), section 4.2.3.6	
Primary data collection sites		Head office factory	
Primary data collection period		From September 2023 to October 2024	
Biogenic carbon		☐ 0/0 approach	■ -1/+1 approach
Information about electricity	Use	■ Average consumption mix	☐ Others
	Type	Not applicable	
	Purchase date	Not applicable	
	Issuing body	Not applicable	

＞Modules

Production stage			Construction stage		Use stage							End-of-life stage				Suppl. info
					Use					Operation						
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Extraction and upstream production	Transport to factory	Manufacturing	Transport to site	Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction / Demolition	Transport to waste processing or disposal	Waste processing	Disposal of waste	Potential net benefits
■	■	■	–	–	–	–	–	–	–	–	–	–	–	–	–	–

■ : declared module　– : module not declared

＞Allocation

We considered process subdivision and allocation according to the procedures described in GPI. We allocated factory power and other resources based on production volume.

＞Cut-off rules

Based on PCR regulations, raw material containers and packaging account for less than 5% of the total input into the manufacturing process of this EPD-eligible product, and therefore were included in the cutoff.

＞System Boundary

The settings were determined based on PCR. The temporal system boundary is 100 years.

＞Scenario

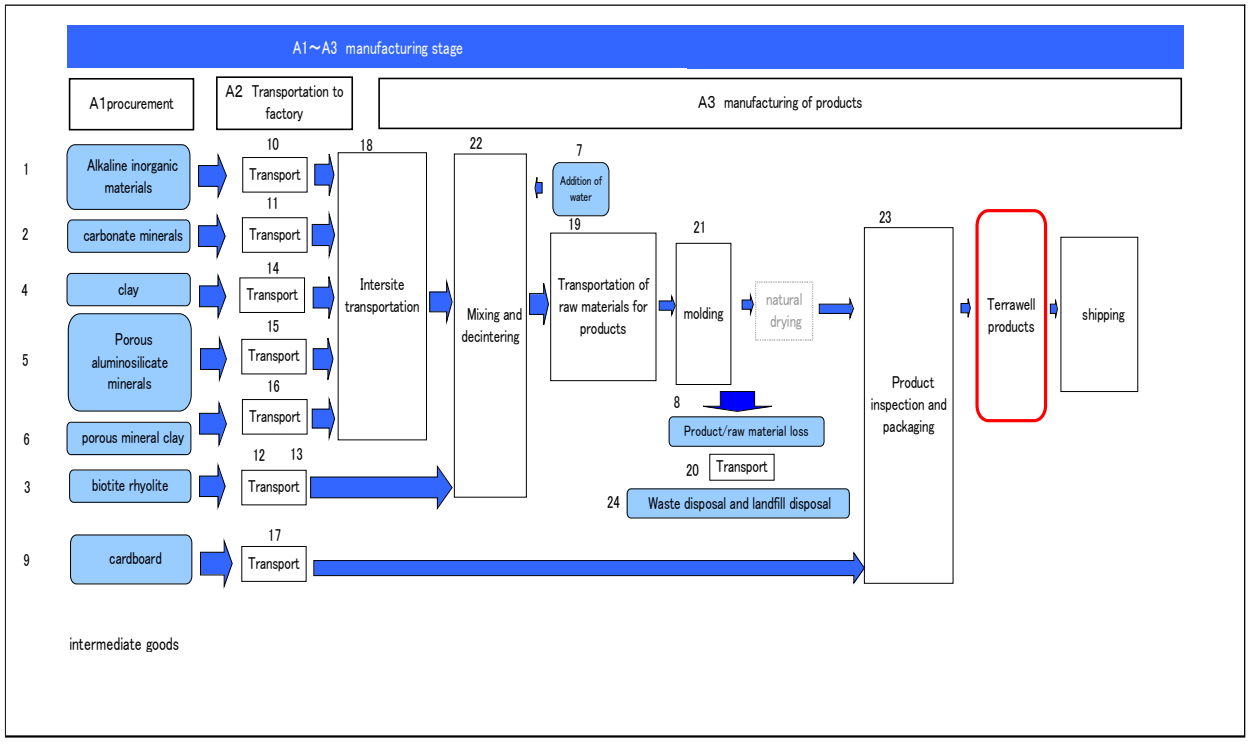
Modules	Description
A1	Raw material transport scenarios specified in PCR
A2	Raw material transport scenarios specified in PCR
A3	Raw material transport scenarios specified in PCR

＞Electricity Modelling

For all lifecycle stages covered, calculations were performed using data on the average grid power in Japan in 2021.

Environmental Product Declaration for Terrawell

＞Life Cycle Sytem Diagram



●LCA Result

＞LCIA Indicators

		Production stage				Construction stage		Use stage							End-of-life stage				Supple. info
								Use					Operation						
		A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP - total	kg-CO_2eq	9.41E-01	1.49E-01	2.43E-01	1.33E+00	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
GWP - fossil	kg-CO_2eq	1.09E+00	1.49E-01	2.42E-01	1.48E+00	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
GWP - biogenic	kg-CO_2eq	-1.54E-01	1.28E-05	5.83E-04	-1.54E-01	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
GWP - land use and land use change	kg-CO_2eq	7.63E-04	2.19E-04	2.78E-04	1.26E-03	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
ODP: Ozone depletion potential	kg-CFC-11eq	1.08E-07	1.27E-12	3.96E-10	1.08E-07	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
EP: Eutrophication potential	kg-PO_4^{3-}-eq	2.43E-05	6.27E-10	4.48E-08	2.43E-05	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
AP: Acidification potential	kg-SO_2eq	9.79E-04	2.86E-04	2.47E-04	1.51E-03	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
POCP: Photochemical oxidant creation potential	kg-C_2H_4eq	1.17E-05	3.59E-06	3.33E-06	1.86E-05	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
Optional indicators																			
ADP - elements	kg-Sbeq	2.29E-05	4.09E-10	1.16E-06	2.41E-05	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
GWP - aircraft	kg-CO_2eq	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-	-

＞LCI - Primary Resource Use

		Production stage				Construction stage		Use stage							End-of-life stage				Supple. info
								Use					Operation						
		A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
RPR_E*	MJ	1.62E+00	5.13E-04	2.12E+00	3.74E+00	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
RPR_M*	MJ	1.81E-01	1.36E-06	6.90E-05	1.82E-01	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
$NRPR_E$*	MJ	1.22E+01	1.63E+00	7.22E+00	2.11E+01	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
$NRPR_M$*	MJ	7.06E-01	4.39E-06	2.92E-03	7.09E-01	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00

*RPRE: Renewable primary resources used as an energy carrier, RPRM: Renewable primary resources with energy content used as material, NRPRE: Non-renewable primary resources used as an energy carrier, NRPRM: Non-renewable primary resources with energy content used as material.

＞LCI- Secondary Resources Use

		Production stage				Construction stage		Use stage							End-of-life stage				Supple. info
								Use					Operation						
		A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
SM： Use of secondary material	kg	1.20E-01	5.53E-07	2.75E-04	1.20E-01	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
RSF： Renewable secondary fuels	MJ	4.17E-02	2.53E-07	2.73E-05	4.17E-02	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
NRSF： Non-renewable secondary	MJ	1.16E-01	1.25E-06	7.32E-05	1.16E-01	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
RE： Use of recovered energy	MJ	2.69E-02	7.82E-06	3.98E-02	6.67E-02	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00

＞LCI - ADP-fossil and Consumption of freshwater

		Production stage				Construction stage		Use stage							End-of-life stage				Supple. info
								Use					Operation						
		A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADP - fossil	MJ	1.27E+01	2.02E+00	3.37E+00	1.81E+01	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
Consumption of freshwater resources	㎥	4.20E-02	7.66E-05	2.88E-04	4.24E-02	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00

＞Waste Indicators

		Production stage				Construction stage		Use stage							End-of-life stage				Supple. info
								Use					Operation						
		A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
hazardous waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
non-hazardous waste disposed	kg	1.86E-02	8.24E-05	1.96E-03	2.06E-02	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
high-level radioactive waste	㎥	3.66E-12	1.33E-15	1.29E-11	1.66E-11	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00
intmd. and low-level radioactive waste	㎥	3.73E-09	1.36E-12	5.43E-09	9.16E-09	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00E+00

＞Output Flow Indicators

			Production stage				Construction stage		Use stage							End-of-life stage				Supple. info
									Use					Operation						
			A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for reuse		kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Materials for recycling		kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Material for energy recovery		kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exported energy from waste (energy recovery efficiency≧60%)		MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Incineration of waste (energy recovery efficiency＜60%)	Waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Recovered energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Waste disposed in landfill and energy recoved from landfill gas	Waste disposed	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Recovered energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-	-	-	-	-	-	-	-	-	-	-	-	-	-

＞Description of LCA Results

• This product has a function to adsorb and fix CO_2 within the product body after completion, but this absorption and fixation effect is not included in the calculation results.
• Because general values (unit costs) are used, these results may not reflect the specific characteristics of this product. Therefore, please use these results as approximate values.

●Additional Environmental Information

＞Additional Environmental Information not related to LCA

SBTi certified company

＞Information on Hazardous Substances

Hazardous materials name	CAS No.	Standards or regulations
none		

Release of dangerous substances from construction products
none

●Definitions of Terms

none

●References

・ISO14025:2006 Environmental labels and declarations - Type III environmental declarations - Principles and procedures
・ISO14040:2006 Environmental management - Life Cycle Assessment - Principles and framework
・ISO14044:2006 Environmental management - Life Cycle Assessment - Requirements and guidelines
・ISO21930:2017 Sustainability in buildings and civil engineering works - Core rules for environmental product declarations of construction products and services

●Version History

none