

# ENVIRONMENTAL PRODUCT DECLARATION.

AQURON 1000 from MARKHAM



**In accordance with ISO 14025:2006 and EN 15804+A2:2019/AC:2021  
for AQURON 1000 from MARKHAM**

Programme: The International EPD® System, [www.environdec.com](http://www.environdec.com)

Programme operator: EPD International AB

Licensee: EPD Australasia, [www.epd-australasia.com](http://www.epd-australasia.com)

Type of EPD: EPD of a single product from a manufacturer

EPD registration number: EPD-IES-0025949:001

Version date: 2025-12-12

Validity date: 2030-12-11



## Information about EPD Owner



MARKHAM is committed to provide sustainable solutions for new and existing concrete structures in Australia, New Zealand, and the United Kingdom.



MARKHAM headquarters and manufacturing operations are based in Napier, where all admixture and spray-on products are produced. MARKHAM products are then distributed across New Zealand or exported.

MARKHAM products are used for curing, sealing, waterproofing, and extending durability treatments for concrete structures.

These products are used in building construction and civil infrastructure projects globally.

Note that MARKHAM has a data management system to capture procurement and production data – including raw materials, packaging materials (such as pails and totes) and product outputs.

Javi Otero (Manager – Health & Safety, QA and Sustainability) and Mark Smith (Director) managed the data collection and validation for MARKHAM.

About the EPD Owner	
Declaration owner: 	Markham Distributing Limited Web: <a href="http://www.markhamglobal.com">www.markhamglobal.com</a> Email: <a href="mailto:hello@markhamglobal.com">hello@markhamglobal.com</a> Post: 43 Niven Street, Onekawa, Napier 4110, New Zealand
Life Cycle Assessment (LCA)	
LCA accountability: 	thinkstep Ltd. Barbara Nebel / Isabella Pincelli / Chanjief Chandrakumar Web: <a href="http://www.thinkstep-anz.com">www.thinkstep-anz.com</a> Email: <a href="mailto:anz@thinkstep-anz.com">anz@thinkstep-anz.com</a> Post: 11 Rawhiti Road, Pukerua Bay, Wellington 5026, New Zealand

## Product Information

### AQURON 1000

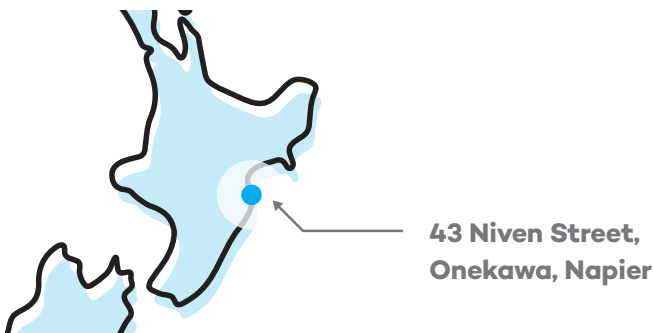


AQURON 1000 is a spray-applied colloidal silica hydrogel concrete sealer to increase durability for new and existing concrete.

AQURON 1000 complies to ASTM C309 - <https://www.astm.org/co309-19.html>

### Manufacturing Process (A1-A3)

Production of the AQURON products starts with the sourcing of the raw materials to MARKHAM's batching site located at 43 Niven Street, Onekawa, Napier in New Zealand.



The batching system involves mixing the raw materials with a specified amount of water, as outlined in the product compositions. The last input in this system is electricity which was provided as primary data for the total annual consumption.

Transport from MARKHAM's manufacturing site in Napier (New Zealand) to MARKHAM's central warehouse in Derby (UK) by container ship and truck is included.

For AQURON 1000, MARKHAM uses uses pails (20 L) as the packaging material. Majority of the raw materials supplied are delivered in IBCs which MARKHAM washes and reuses to package their own products.

Table 1: Industry classification

Product	Classification	Code	Category
AQURON 1000	UN CPC Ver.2.1	3427	Cyanides, cyanide oxides and complex cyanides; fulminates, cyanates and thiocyanates; silicates; borates; perborates
	ANZSIC 2006	1813	Basic Inorganic Chemical Manufacturing

Table 2: Product information

Product	Mass conversion (kg/L)	Type
AQURON 1000	1.03	Spray Applied Colloidal Silica Hydrogel



## Content Declaration

Due to the confidential nature of the composition, upper and lower limits are given per ingredient.

Table 3: Content declaration per 1 L of AQURON 1000

Product component	Mass, kg by declared unit	Post-consumer recycled material, mass % of product	Biogenic material, mass-% of product	Biogenic material, kg C/ declared unit
Colloidal Nano Silica Liquid	0.05-0.14	0	0	0
Clear Silicate Liquid	0-0.42	0	0	0
Acrylic Sealer	0-0.01	0	0	0
Water	0.63-0.90	0	0	0
<b>Total</b>	<b>1.01-1.13</b>	<b>0</b>	<b>0</b>	<b>0</b>

Table 4: Content declaration of packaging per 1 L product

Packaging materials	Mass, kg	Mass-% (versus the product)	Biogenic material, kg C/ declared unit
Pails (20L)	0.0665	5.54 – 6.65	0
Timber pallets	0.024	2.00 – 2.40	0.0101
Plastic wrap (LDPE)	0.000347	0.0289 – 0.0347	0
Plastic strapping (polypropylene)	0.000111	0.00925 – 0.0111	0
Labels (BOPP film)	0.00126	0.105 – 0.126	0
<b>Total</b>	<b>0.0922</b>	<b>7.68 - 9.22</b>	<b>0.0101</b>

## Dangerous substances from the candidate list of SVHC for Authorisation

No products declared within this EPD contain substances exceeding the limits for registration according to the European Chemicals Agency's "Candidate List of Substances of Very High Concern for authorisation" (European Union, 2024).

# LCA Information

## Declared Unit

The declared unit for the EPD is one litre (1 L) of product, plus its packaging ready for delivery at the factory gate. The weight of the packaging is not included in the 1 L of product. The conversion factor to mass is equal to the density of the product: 1.03 kg/m<sup>3</sup>

## System Boundaries

This EPD is of the type d - 'cradle to gate (Modules A1-A3)', given:

1. the product is physically integrated with other products during installation (i.e. concrete batching) so it cannot be physically separated from them at end-of-life;
2. the product is no longer identifiable at end-of-life as a result of a chemical transformation process;
3. the product does not contain biogenic carbon, and;
4. the EPD is not intended to be used for business-to-consumer communication.

Other life cycle stages (Modules A4-A5, B1-B7, C1-C4 and D) are dependent on particular scenarios and best modelled at the building level.

Table 5: Modules included in the scope of the EPD

	Product stage			Distribution/ Installation stage		Use stage							End-of-life stage				Beyond product life cycle
	Raw material supply	Transport	Manufacturing	Transport	Construction/Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction / demolition	Transport	Waste processing	Disposal	Future reuse, recycling or energy recovery potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Geography	USA/ NZ	GLO	NZ	-	-	-	-	-	-	-	-	-	-	-	-	-	-

X = included in the EPD; ND = Module not declared (such a declaration shall not be regarded as an indicator result of zero).

The processes below are included in the product system to be studied.

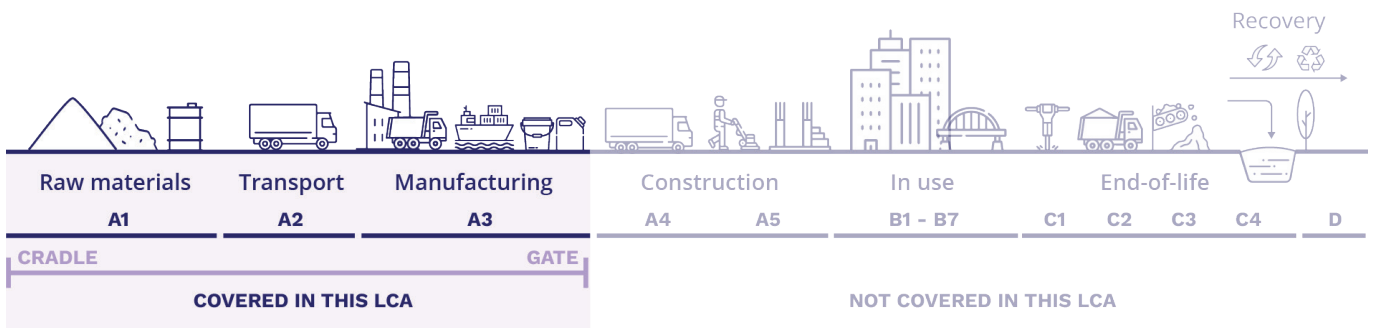


Figure 1: Life cycle stages covered in this EPD

### Product stage (Modules A1-A3)

**Module A1 (raw material supply)** includes the production of raw materials used as ingredients in the products.

**Module A2 (transportation)** includes the transport of both the ingredients and packaging used for the products. These are all delivered to the manufacturing site in Napier with sources from Dallas (USA), Los Angeles (USA), Auckland (New Zealand), Wellington (New Zealand), and Hastings (New Zealand). International transport is by ship while all domestic transport is by truck.

**Module A3 (manufacturing)** Production processes involve weighing, batching, pumping, and mixing which all involve the use of electricity. Final products are then packaged in pails (20 L). Packaged products are transported to the MARKHAM's central warehouse in Derby (UK) by container ship and truck.

# LCA Information

## Product system process flow diagram

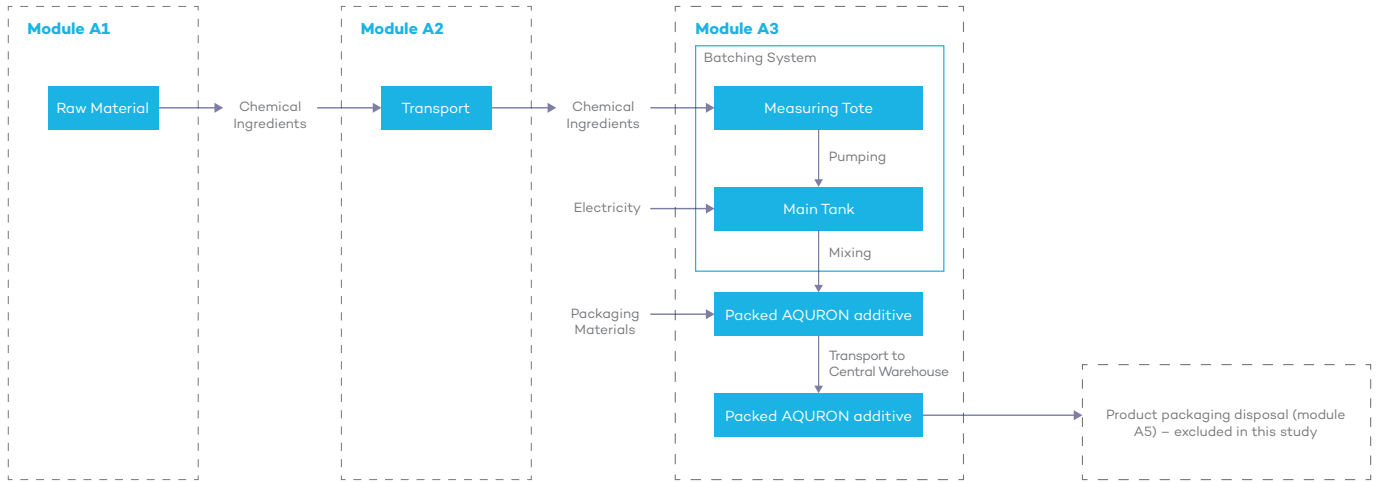


Figure 2: High level manufacturing processes (A1-A3)

## Life cycle inventory (LCI) data and assumptions

Primary data for producing AQURON products were collected using customised data collection templates, for the period 2023-01-01 to 2023-12-31. All primary data falls within the mandatory 5-year period required under EN 15804 and the PCR. Background data was used for input materials sourced from raw material and packaging suppliers.

## Upstream data

The study uses primary data from the batching plant in Napier. Predominantly, raw materials are sourced from Dallas (USA), Los Angeles (USA), Auckland (New Zealand), Wellington (New Zealand), and Hastings (New Zealand), and all are sent to Napier for production. Supporting background data specific to USA and New Zealand or Australia was used whenever possible. All electricity and water data were regionalised for New Zealand.

## EPD as a data source

Product-specific EPDs are used to model the upstream input materials. For example, the EPD used to model Clear Colloidal Nano Silica Liquid (Nouryon EPD S-P-07625) is based on a different PCR to the one used in this EPD - PCR 2021:03 for basic chemicals product category classification (v1.1). Hence, this upstream EPD is not fully compliant with the LCA rules to which our EPD is verified. However, we acknowledge that the effects of using different PCRs and LCA rules have minimal effects on our EPD.

## LCA software and database

The study was conducted in Microsoft Excel, using the life cycle inventory data from ecoinvent, Allocation, cut-off, EN15804, ecoinvent database version 3.10 (Wernet, 2016) and Levasil CB30 EPD (Nouryon, 2022) for raw materials, electricity, packaging and transportation. Ecoinvent datasets were downloaded from the ecoinvent website as an Excel file; this file presents environmental impact results for a comprehensive list of background datasets. Note that these datasets have not been used in conjunction with an LCA software. The reference year for the data ranges from 2016-2023 and is within the 10-year limit allowable for generic data under EN 15804 and PCR.

## Electricity

The composition of the residual electricity grid mix of New Zealand is modelled using published data for the period 2021-04-01 to 2022-03-31 (BraveTrace, 2023). The New Zealand residual electricity mix is made up of hydro (56.6%), geothermal (19.7%) natural gas (12.5%), wind (6.55%), coal (4.25%), biomass (0.266%) and biogas (0.160%).

Onsite consumption (3.00%), and the medium voltage (1kV-60kV) grid's transmission and distribution losses (3.17%) are calculated based on data from the Ministry of Business, Innovation & Employment (MBIE, 2023).

The emission factor for the New Zealand residual grid mix for the GWP-GHG indicator is 0.150 kg CO<sub>2</sub>-eq./kWh (medium voltage, based on EF<sub>3.1</sub>).

## Allocation

**Multi-output Allocations:** Multi-output allocation generally follows the requirements of PCR 2019:14 v2.0.1 section 4.5 (EPD International, 2025b). The electricity input was provided as primary data for the total annual consumption. This was then allocated to each product by physical properties based on the respective volume production amounts of each product, resulting in an equal distribution of electricity consumption per L of product.

**Allocation of background data:** Allocation of background data (energy and materials) is documented online at <https://ecoquery.ecoinvent.org/>.

## Cut off criteria

No cut-off criteria are defined for this study. The system boundary was defined based on relevance to the goal of the study. For the processes within the system boundary, all available energy and material flow data have been included in the model. In cases where no matching life cycle inventories are available to represent a flow, proxy data have been applied based on conservative assumptions regarding environmental impacts.

## Data Quality Assessment

This EPD follows the requirements for data quality in section 4.6 of PCR 2019:14v2.0.1, including the classification of primary data, representative secondary data and proxy data.

The data quality assessment (DQA) in this EPD is completed in line with EN 15941 and utilises the system for "Data quality level and criteria of the UN Environment Global Guidance on LCA database development", one of the two systems permitted by EN 15804+A2. See Table 6 for data quality assessment.

Table 6: Data quality assessment – overall representativeness

Process	Geographical representativeness	Technical representativeness	Time representativeness
Colloidal Silica Liquid	Good	Good	Very Good
Clear Silicate Liquid	Good	Very Good	Very Good
Acrylic Sealer	Good	Very Good	Very Good
Water	Good	Good	Very Good
Electricity – Process	Very Good	Very Good	Very Good

The share of primary data is calculated based on GWP-GHG results (see Table 7). It is a simplified indicator for data quality that supports the use of more primary data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.

The reported share of primary data is associated with uncertainty, as EPDs used as data source lack information on the share of primary data – for example, the EPD used to model Clear Colloidal Nano Silica Liquid (Nouryon EPD S-P-07625).

Table 7: Data sources and share of primary data

Process	Source type	Source	Reference year	Data category	Share of primary data, GWP-GHG results for A1-A3
Generation of electricity used in manufacturing of product	Collected data, database	Modelled in SimaPro based on BraveTrace, (2023), MBIE (2023).	2023	Primary data	3%-5%
Transport of inputs to manufacturing site	Collected data, database	EPD owner, ecoinvent v3.10	2023	Primary data	45%-63%
Chemicals	Collected data, database, EPD	EPD owner, Nouryon EPD S-P-07625, ecoinvent v3.10	2023	Primary data, Representative secondary data	0%-42%
Total share of primary data, based on GWP-GHG results for A1-A3					68%-90%

## LCA Information

### Transport

Average transportation distances and modes of transport were supplied by MARKHAM for the raw materials, operating materials, and auxiliary materials to the production facility.

Table 8: Transport parameters

Product component/material	Transport mode	Dataset	Distance (km)
Clear Colloidal Nano Silica Liquid	Truck	Transport, freight, lorry 16-32 metric ton, EURO4	2 400 (US) + 400 (NZ)
Clear Colloidal Nano Silica Liquid	Ocean-Going Ship	Transport, freight, sea, container ship	10 500
Clear Silicate Liquid	Truck	Transport, freight, lorry 16-32 metric ton, EURO4	300
Pails	Truck	Transport, freight, lorry 16-32 metric ton, EURO4	400
AQURON 1000	Truck	Transport, freight, lorry 16-32 metric ton, EURO4	400 (NZ) + 200 (UK)
AQURON 1000	Ocean-Going Ship	Transport, freight, sea, container ship	18 335

### Capital goods and infrastructure

In this study capital goods and infrastructure have been included in the background datasets as provided by ecoinvent (Wernet, 2016). It is not possible, within reasonable effort, to subtract the data on infrastructure/capital goods from these datasets.

### Other Assumptions

Data for electricity was provided for the overall manufacturing site during the study period. The total consumption was split into electricity for process related (batching) and overheads as 10% and 90%, respectively.

IBCs were modelled as reused across MARKHAM's supply chain. IBCs were assumed to be reused up to five times (Geo4o Limited, 2023). Energy and water used for washing the IBCs are accounted for.

## LCA Information

### Assessment Indicators

The results tables describe the different environmental indicators for each product per declared unit, for each declared module. The EN 15804 reference package based on EF 3.1, February 2023 is used.

- Table 9 contains the core environmental impact indicators in accordance with EN 15804:2012+A2:2019, describing the potential environmental impacts of the product.
- Table 10 shows the life cycle inventory indicators for resource use.
- Table 11 displays the life cycle inventory indicators for waste and other outputs.
- Table 12 provides additional environmental impact indicators in accordance with EN 15804:2012+A2:2019.
- Table 13 displays biogenic carbon content indicators.

The use of primary energy is separated into energy used as raw material and energy used as energy carrier as per option C in Annex 3 in the PCR (EPD International, 2025b).

Energy indicators (MJ) are always given as net calorific value.

Table 9: EN15804+A2 Core Environmental Impact Indicators

Impact category	Abbreviation	Unit
Climate change – total	GWP-total	kg CO <sub>2</sub> -eq.
Climate change – fossil	GWP-fossil	kg CO <sub>2</sub> -eq.
Climate change – biogenic	GWP-biogenic	kg CO <sub>2</sub> -eq.
Climate change – land use and land use change	GWP-luluc	kg CO <sub>2</sub> -eq.
Ozone depletion	ODP	kg CFC11-eq.
Acidification	AP	Mole of H <sup>+</sup> eq.
Eutrophication aquatic freshwater	EP-freshwater	kg P eq.
Eutrophication aquatic marine	EP-marine	kg N eq.
Eutrophication terrestrial	EP-terrestrial	Mole of N eq.
Photochemical ozone formation	POCP	kg NMVOC eq.
Depletion of abiotic resources – minerals and metals <sup>1,2</sup>	ADP-m&m	kg Sb-eq.
Depletion of abiotic resources – fossil fuels <sup>1</sup>	ADP-fossil	MJ
Water use <sup>1</sup>	WDP	m <sup>3</sup> world equiv.

## LCA Information

Table 10: Life cycle inventory indicators on use of resources

Indicator	Abbreviation	Unit
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJ
Use of renewable primary energy resources used as raw materials	PERM	MJ
Total use of renewable primary energy resources	PERT	MJ
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJ
Use of non-renewable primary energy resources used as raw materials	PENRM	MJ
Total use of non-renewable primary energy resources	PENRT	MJ
Use of secondary material	SM	kg
Use of renewable secondary fuels	RSF	MJ
Use of non-renewable secondary fuels	NRSF	MJ
Total use of net fresh water	FW	m <sup>3</sup>

Table 11: Life cycle inventory indicators on waste categories and output flows

Indicator	Abbreviation	Unit
Hazardous waste disposed	HWD	kg
Non-hazardous waste disposed	NHWD	kg
Radioactive waste disposed	RWD	kg
Components for reuse	CRU	kg
Materials for energy recovery	MER	kg
Materials for recycling	MFR	kg
Exported electrical energy	EEE	MJ
Exported thermal energy	EET	MJ

## LCA Information

Table 12: EN15804+A2 Additional Environmental Impact Indicators

Indicator	Abbreviation	Unit
Climate Change <sup>3</sup>	GWP-GHG	kg CO <sub>2</sub> -eq
Particulate Matter emissions	PM	Disease incidences
Ionising Radiation – human health <sup>4</sup>	IRP	kBq U235 eq.
Eco-toxicity (freshwater) <sup>1,2</sup>	ETP-fw	CTUe
Human Toxicity, cancer <sup>1,2</sup>	HTP-c	CTUh
Human Toxicity, non-cancer <sup>1,2</sup>	HTP-nc	CTUh
Land use related impacts / soil quality <sup>1,2</sup>	SQP	Dimensionless

Table 13: Biogenic carbon content indicators

Indicator	Abbreviation	Unit
Biogenic carbon content - product	BCC-prod	kg C
Biogenic carbon content - packaging	BCC-pack	kg C

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>

## Environmental performance

The environmental impact results per declared unit of product (1 L AQURON 1000) is presented in tables below. The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.

Table 14: Mandatory environmental performance indicators according to EN 15804, results per declared unit (1 L of AQURON 1000)

INDICATOR	UNIT	A1-A3
<b>GWP-total</b>	kg CO <sub>2</sub> -eq.	0.634
<b>GWP-fossil</b>	kg CO <sub>2</sub> -eq.	0.632
<b>GWP-biogenic</b>	kg CO <sub>2</sub> -eq.	0.00184
<b>GWP-luluc</b>	kg CO <sub>2</sub> -eq.	3.14E-04
<b>ODP</b>	kg CFC11-eq.	1.66E-08
<b>AP</b>	Mole of H <sup>+</sup> eq.	0.00776
<b>EP-freshwater</b>	kg P eq.	8.47E-05
<b>EP-marine</b>	kg N eq.	0.0019
<b>EP-terrestrial</b>	Mole of N eq.	0.0213
<b>POCP</b>	kg NMVOC eq.	0.00652
<b>ADP-m&amp;m<sup>1,2</sup></b>	kg Sb-eq.	4.69E-06
<b>ADP-fossil<sup>1</sup></b>	MJ	10.6
<b>WDP<sup>1</sup></b>	m <sup>3</sup> world equiv.	0.115

Table 15: Resource use indicators according to EN 15804, results per declared unit (1L AQURON 1000)

INDICATOR	UNIT	A1-A3
PERE	MJ	245
PERM	MJ	0
PERT	MJ	245
PENRE	MJ	10.6
PENRM	MJ	6.19E-06
PENRT	MJ	10.6
SM	kg	0.00475
RSF	MJ	0.0111
NRSF	MJ	0
FW	m <sup>3</sup>	0.499

Table 16: Waste indicators according to EN 15804, results per declared unit (1L AQURON 1000)

INDICATOR	UNIT	A1-A3
HWD	kg	0.019
NHWD	kg	1.46
RWD	kg	4.83E-06
CRU	kg	0
MER	kg	0
MFR	kg	0
EEE	MJ	0.0028
EET	MJ	0.0422

Table 17: Additional mandatory and voluntary impact category indicators, results per declared unit (1L AQURON 1000)

INDICATOR	UNIT	A1-A3
<b>GWP-GHG<sup>3</sup></b>	kg CO <sub>2</sub> -eq	0.631
<b>PM</b>	Disease incidences	2.74E-08
<b>IRP<sup>4</sup></b>	kBq U235 eq.	0.0193
<b>ETP-fw<sup>1,2</sup></b>	CTUe	17.6
<b>HTP-c<sup>1,2</sup></b>	CTUh	3.05E-09
<b>HTP-nc<sup>1,2</sup></b>	CTUh	4.90E-09
<b>SQP<sup>1,2</sup></b>	Dimensionless	11.9

Table 18: Biogenic carbon content indicators, results per declared unit (1L AQURON 1000)

PARAMETER	UNIT	A1-A3
<b>BCC-prod</b>	kg C	0
<b>BCC-pack</b>	kg C	0.0102

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>

### Disclaimers

<sup>1</sup>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.

<sup>2</sup>The results of the impact categories abiotic depletion of minerals and metals, land use, human toxicity (cancer), human toxicity, noncancer and ecotoxicity (freshwater) may be highly uncertain in LCAs that include capital goods/ infrastructure in generic datasets, in case infrastructure/capital goods contribute greatly to the total results. This is because the LCI data of infrastructure/capital goods used to quantify these indicators in currently available generic datasets sometimes lack temporal, technological and geographical representativeness. Caution should be exercised when using the results of these indicators for decision-making purposes.

<sup>3</sup> This indicator should be identical to GWP-total except that the CF for biogenic CO<sub>2</sub> is set to zero. It has been included in the EPD following the PCR (EPD International, 2025b). In this study it is calculated by subtracting the value of Climate change – biogenic (GWP-biogenic) from the value of Climate change – total (GWP-total) since the ecoinvent Excel LCIA results do not include the indicator.

<sup>4</sup> This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and some construction materials, is also not measured by this indicator.

## List of Abbreviations

TERM	DEFINITION
<b>ADP</b>	Abiotic Depletion Potential
<b>AP</b>	Acidification Potential, Accumulated Exceedance
<b>CEN</b>	European Committee for Standardization
<b>DOCf</b>	Degradable Organic Carbon Fraction
<b>EoL</b>	End-of-Life
<b>EP</b>	Eutrophication Potential
<b>GWP</b>	Global Warming Potential (Climate Change)
<b>ISO</b>	International Organization for Standardization
<b>LCA</b>	Life Cycle Assessment
<b>LCI</b>	Life Cycle Inventory
<b>LCIA</b>	Life Cycle Impact Assessment
<b>luluc</b>	Land use and land use change
<b>mm</b>	Minerals and metals
<b>MBIE</b>	Ministry of Business, Innovation, and Employment
<b>NZ</b>	New Zealand
<b>ODP</b>	Depletion potential of the stratospheric ozone layer
<b>PM</b>	Potential incidence of disease due to PM emissions
<b>POCP</b>	Formation potential of tropospheric ozone
<b>UK</b>	United Kingdom
<b>USA</b>	United States of America
<b>WDP</b>	Water (user) deprivation potential, deprivation-weighted water consumption

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## General information

An Environmental Product Declaration, or EPD, is a standardised and verified way of quantifying the environmental impacts of a product based on a consistent set of rules known as a PCR (Product Category Rules).

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison.

The results for EN15804+A1 compliant EPDs are not comparable with EN15804+A2 compliant studies as the methodologies are different.

Programme Information	
EPD programme operator: 	EPD International AB Web: <a href="http://www.environdec.com">www.environdec.com</a> Email: <a href="mailto:support@environdec.com">support@environdec.com</a> Post: EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden
Licensee: 	EPD Australasia Limited Web: <a href="http://www.epd-australasia.com">www.epd-australasia.com</a> Email: <a href="mailto:info@epd-australasia.com">info@epd-australasia.com</a> Post: EPD Australasia Limited, 6 Cube Court, Richmond 7020, New Zealand
Product Category Rules (PCR)	
CEN standard EN 15804 served as the core Product Category Rules (PCR)	
Product Category Rules (PCR):	PCR 2019:14 Construction Products, version 2.0.1 (published on 2025-06-05, valid until 2030-04-07)
PCR review was conducted by:	The Technical Committee of the International EPD® System. See <a href="http://www.environdec.com">www.environdec.com</a> for a list of members
Review Chair:	Rob Rouwette (chair), Noa Meron (co-chair). The review panel may be contacted via the Secretariat: <a href="http://www.environdec.com/contact">www.environdec.com/contact</a> .

## Verification

External and independent ('third-party') verification of the declaration and data, according to ISO 14025:2006, via EPD verification through:

- Individual EPD verification without a pre-verified LCA/EPD tool
- Individual EPD verification with a pre-verified LCA/EPD tool
- EPD Process Certification\* without a pre-verified LCA/EPD tool
- EPD Process Certification\* with a pre-verified LCA/EPD tool
- Fully pre-verified EPD tool

Third party verifier:

Claudia A. Peña (Director of PINDA LCT SpA)  
Email: pinda.lct@gmail.com

Verifier approved by:

EPD Australasia and The International EPD System

Procedure for follow-up of data during EPD validity involved third-party verifier

- Yes
- No

## About the EPD Owner

Declaration owner:



Markham Distributing Limited  
Web: [www.markhamglobal.com](http://www.markhamglobal.com)  
Email: [hello@markhamglobal.com](mailto:hello@markhamglobal.com)  
Post: 43 Niven Street, Onekawa, Napier 4110, New Zealand

Geographical Scope

A1: USA and New Zealand  
A2: Global  
A3: New Zealand (manufacturing) and GLO (transportation)

Reference Year for Data

2023-01-01 to 2023-12-31

## Life Cycle Assessment (LCA)

LCA accountability:



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## Version History

001 - original version of the EPD 2025-12-12