

Environmental Product Declaration

Corques Liquid Lino

Duracryl International BV

Publisher:	Duracryl International BV
Program operator:	Stichting NMD
Calculation number:	ReTHiNK-59207
Generation on:	06-08-2024
Issue date:	06-08-2024
Valid until:	06-08-2029
Status:	verified

R<THiNK



1 General information

1.1 PRODUCT

Corques Liquid Lino

1.2 VALIDITY

Issue date: 06-08-2024

Valid until: 06-08-2029

1.3 OWNER OF THE DECLARATION



Manufacturer: Duracryl International BV

Address: Elandstraat 91, 2901 BK Capelle aan den IJssel

E-mail: info@duracryl.com

Website: www.duracryl.com

Production location: Duracryl international BV

Address production location: elandstraat 91, 2901BK Capelle aan den IJssel

1.4 VERIFICATION OF THE DECLARATION

The independent verification is in accordance with the ISO 14025:2011. The LCA is in compliance with ISO 14040:2006 and ISO 14044:2006. The EN 15804:2012+A2:2019 serves as the core PCR.

☐ Internal ☒ External

A handwritten signature in black ink, appearing to read "P. Heuvel", is written over a light blue grid background.

Pien van den Heuvel , So. Sustainability

1.5 PRODUCT CATEGORY RULES

EN15804+A2:2019

1.6 COMPARABILITY

In principle, a comparison or assessment of the environmental impacts of different products is only possible if they have been prepared in accordance with EN 15804+A2. For the evaluation of the comparability, the following aspects have to be considered in particular: PCR used, functional or declared unit, geographical reference, the definition of the system boundary, declared modules, data selection (primary or secondary data, background database, data quality), scenarios used for use and disposal phases, and the life cycle inventory (data collection, calculation methods, allocations, validity period). PCRs and general program instructions of different EPD program operators may differ. Comparability needs to be evaluated. For further guidance, see EN 15804+A2 (5.3 Comparability of EPD for construction products) and ISO 14025 (6.7.2 Requirements for comparability).

1.7 CALCULATION BASIS

LCA method R<THiNK: EN15804+A2:2019

LCA software*: Simapro 9.1.1

Characterization method: EN 15804 +A2 Method v1.0

LCA database profiles: EcolInvent version 3.6

Version database: v3.17 (2024-05-22)

** Simapro is used for calculating the characterized results of the Environmental profiles within R<THiNK.*

1.8 LCA BACKGROUND REPORT

This EPD is generated on the basis of the LCA background report 'Corques Liquid Lino' with the calculation identifier ReTHiNK-59207.

2 Product

2.1 PRODUCT DESCRIPTION

Corques Liquid Lino is made from castor oil and is Red List Free. The combination with pre-consumer recycled cork gives Corques an unique aesthetic. Corques uses a bio-based crosslinker to cure.

According to ISO 14021 recycled content is referred to as: *“the proportion, by mass, of recycled material in a product. Only pre-consumer and post-consumer material shall be considered as recycled content.”*.

Included in this EPD is the full Corques Liquid Lino system. This consists of primer, Corques and finish. Both a textured finish and standard finish are covered by this EPD.

The lifespan of the product is set at 15 years and is based on the “SBR levensdurengids” for resilient linoleum type flooring.

Corques Liquid Lino can be easily removed with an utility knife leaving no residue. It can be recycled and reused either as filler for new flooring or isolation in sport flooring. This can all be done by local recycling companies.

The weight of this system is approx. 3 kg / m2 (0.6 lbs / sq ft).

For accountability of the impact of the carbon footprint of Corques Liquid Lino we are using the definition of “Healthy Materials Lab at Parsons School of Design” in New York, a leading authority on this subject:

“Currently, there is no universal threshold for ‘low embodied carbon’ in flooring materials. After discussing this research with experts, we have set a rigorous standard that can meet 2030 emission goals. These products, labeled with ‘LEC’, embody below 5kg of CO2 per square meter”



2.2 APPLICATION (INTENDED USE OF THE PRODUCT)

Corques Liquid Lino is a resilient linoleum floor covering. Corques Liquid Lino can be used as a seamless decorative floor covering in the education sector, medical sector, offices, museums, but is also suitable for domestic surfaces. In short Corques Liquid Lino is a perfect solution for floors where the owners and users have a high demand on comfort, wear and impact resistance and hygiene. Corques Liquid Lino is a seamless solution from wall to wall.

Corques Liquid Lino is tough-elastic and shows a perfect resistance to the signs of use. After curing Corques Liquid Lino is resistant to a wide range of chemicals, acids, leys, resins, solvents and foodstuff. Corques Liquid Lino is also liquid tight. The majority of the ingredients in Corques Liquid Lino are renewable resources.

2 Product

2.3 REFERENCE SERVICE LIFE

RSL PRODUCT

The Rsl is set at 15 years based on similar products on the market. This is supported by the "SBR levensdurengids" for resilient linoleum type flooring.

USED RSL (YR) IN THIS LCA CALCULATION:

15

RSL PARTS

The different components of the system have 15 year Rsl.

Description	Material	RSL [yr]
<i>Maintenance (B2)</i>		
Water	Tap water - part of the product	1
Cleaning agent	Soap production (EU)	1

2.4 TECHNICAL DATA

Corques Liquid Lino is a resilient floor covering complying with all the functional requirements of EN-ISO 24011: Specification for plain and decorative linoleum.

Corques Liquid Lino meets to composition and durability requirements of ASTM F2034 but as a poured in place homogeneous linoleum product.

- ISO 24346:2012 - determination of the overall thickness
- ISO 23997:2012 - determination of mass per unit area
- ISO 24344:2008 - determination of flexibility
- ISO 24343-1:2012 - residual indentation after static loading
- ISO 4918:2009 - determination of the effect of a castor chair
- EN-ISO 105-B02:2013 - colour fastness to light
- EN 1815:2016 - static electrical charging
- EN 13893:2002 - slip resistance
- ISO 26987:2008 - determination the reaction to chemical substances
- EN 424:2001 - effect of simulated movement of a furniture leg
- EN 660-2:1999 - determination of wear resistance (Taber test)
- ISO 7619-1:2010 - determination of indentation hardness
- EN-ISO 10140-1 - 5:2010 - impact sound insulation
- EN-ISO 11925-2:2010/C1:2011 - ignitability of products subjected to direct impingement of flame
- EN-ISO 9239-1:2010 - determination of the burning behaviour using a radiant heat source

Concluding all these results provide the following classifications:

Domestic: Class 23 Heavy

Commercial: Class 34 Very Heavy

Light industrial: Class 43 Heavy

Corques Liquid Lino raw material originate according to below overview.

Weight	Percentage	Origin	Natural material
Vegetable oil	52%	Biobased crop	52%
Linseed oil	2%	Biobased crop	2%
Cork filler	10%	Biobased waste from industry	10%
Pigment	1%	Mineral	
Crosslinker	25%	Biobased (60%) crop	16%
Laquer	1%	Limited fossil based	
Aluminium Trihydrate	9%	Natural mineral	9%
	100%		89%

Above mentioned composition refers to installed product.

2.5 SUBSTANCES OF VERY HIGH CONCERN

No, SVHC required to produce this product. Corques Liquid Lino does not require adhesives or welding rods.

2 Product

2.6 DESCRIPTION PRODUCTION PROCESS

Raw materials arrive in the factory in bulk. After storage in silos these are sent to large mixing tubs through pipes. In the tubs all ingredients are added and mixed by an electric powered mixer. After mixing the material is tapped in buckets. Ready for shipping to the jobsite.

2.7 CONSTRUCTION DESCRIPTION

The subfloor is prepared for installation by applying the primer by roller. Material is mixed on site and applied.

The next day the Corques Liquid Lino is mixed on site and installed with a trowel. Backrolling with a metal spiked roller.

The following day the finish is mixed on site and applied by roller.

For Corques application only an electric hand mixer is used on site.



3 Calculation rules

3.1 FUNCTIONAL UNIT

m2

One square meter of Corques Liquid Lino with a thickness of 3mm. Included are production (A1-A3) of the product, assemble in the project (A4 and A5) and necessary maintenance (B2). Also including the end-of-life scenario (C1-C4) and Module D. The modules B1, B3, B4, B5, B6 and B7 are not applicable and are set equal to 0. Module A4 is declared for 1 km and module B2 is declared for 1 year.

Calculation is made in accordance with EN15804+A2.

Reference unit: square meter (m2)

3.2 CONVERSION FACTORS

Description	Value	Unit
Reference unit	1	m2
Weight per reference unit	3.000	kg
Conversion factor to 1 kg	0.333333	m2

3.3 SCOPE OF DECLARATION AND SYSTEM BOUNDARIES

This is a Cradle to gate with options LCA. The life cycle stages included are as shown below:

(X = module included, ND = module not declared)

A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	ND	ND	ND	ND	X	X	X	X	X

The modules of the EN15804 contain the following:

Module A1 = Raw material supply	Module B5 = Refurbishment
Module A2 = Transport	Module B6 = Operational energy use
Module A3 = Manufacturing	Module B7 = Operational water use
Module A4 = Transport	Module C1 = De-construction / Demolition
Module A5 = Construction - Installation process	Module C2 = Transport
Module B1 = Use	Module C3 = Waste Processing
Module B2 = Maintenance	Module C4 = Disposal
Module B3 = Repair	Module D = Benefits and loads beyond the product system boundaries
Module B4 = Replacement	

3.4 REPRESENTATIVENESS

This EPD is representative for Corques Liquid Lino, a product of Duracryl International BV. The results of this EPD are representative for the Netherlands.

3.5 CUT-OFF CRITERIA

Product Stage (A1-A3)

All input flows (e.g. raw materials, transportation, energy use, packaging, etc.) and output flows (e.g. production waste) are considered in this LCA. The total neglected input flows do therefore not exceed the limit of 5% of energy use and mass. Raw materials arrive in the factory as powder, liquid and granules. All arrive at the factory in big bags and IBCs.

3 Calculation rules

Construction process stage (A4-A5)

All input flows (e.g. transportation to the construction site, additional raw material use for construction, installation energy (use)of energy use for assembly , etc.) and output flows (e.g. construction waste, packaging waste, etc.) are considered in this LCA. The total neglected input flows do therefore not exceed the limit of 5% of energy use and mass. All waste and energy input used to finalize calculations has been measured by the production team.

Use stage (B1-B3)

All (known) input flows (e.g. raw materials, transportation, energy use, packaging, etc.) and output flows (e.g. emissions to soil, air and water, construction waste, packaging waste, end-of-life waste, etc.) related to the building fabric are considered in this LCA. The total neglected input flows do therefore not exceed the limit of 5% of energy use and mass.

End of life stage (C1-C4)

All input flows (e.g. energy use for demolition or disassembly, transport to waste processing, etc.) and output flows (e.g. end-of-life waste processing of the product, etc.) are considered in this LCA. The total neglected input flows do therefore not exceed the limit of 5% of energy use and mass. For this EPD a worst-case scenario has been used in terms of end of life, consisting of mostly landfill. Duracryl International has instructions and a program for recycling the floor after usage.

Benefits and Loads beyond the system boundary (Module D)

All benefits and loads beyond the system boundary resulting from reusable products, recyclable materials and/or useful energy carriers leaving the product system are considered in this LCA.

3.6 ALLOCATION

Capital goods and infrastructe included in the EcolInvent processes are included.

Duracryl doesn't believe any required relevant input or output is excluded from this EPD.

3.7 DATA COLLECTION & REFERENCE TIME PERIOD

All data has been collected from end of 2021 until end of 2023. The data used in this declaration is all based on minimal 1 year measurements.

3.8 ESTIMATES AND ASSUMPTIONS

For this EPD it is assumed that landfill exists as a waste scenario.

Transport to jobsite is set at 1 km where total transport needs to be included depending on location.

3.9 DATA QUALITY

The data has been gathered and examined for 2 years to get an accurate database. The data is classified based on the Pedigree Score.

Reliability class 3.

Completeness class 2.

Temporal correlation class 1.

Indicator score	1	2	3	4	5 (default)
Reliability	Verified data based on measurements	Varified data partly based on assumptions or non-verified data based on measurements	Non-verified data partly based on qualified estimates	Qualified estimate (e.g. by industrial expert)	Non-qualified estimate
Completeness	Representative data from all sites relevant for the market	Representative data from >50% of the sites relevant	Representative data from only some sites (<50%)	Representative data from only one site relevant for	Representative data from unknown or from a small number of

3 Calculation rules

considered, over an adequate period to even out normal fluctuations	for the market considered, over an adequate period to even out normal fluctuations	relevant for the market considered or >50% of sites but from shorter periods	the market considered or some sites but from shorter periods	and from shorter periods	Temporal correlation	Less than 3 years of difference to the time period of the dataset	Less than 6 years of difference to the time period of the dataset	Less than 10 years of difference to the time period of the dataset	Less than 15 years of difference to the time period of the dataset	Age of data unknown o than 15 yea difference time perio dataset
--	--	---	---	------------------------------------	---------------------------------	--	--	---	---	--

4 Scenarios and additional technical information

4.1 TRANSPORT TO CONSTRUCTION SITE (A4)

For the transport from production place to assembly/user, the following scenario is assumed for module A4 of this EPD.

	Value and unit
Vehicle type used for transport	Lorry (Truck), unspecified (default) market group for (GLO)
Fuel type and consumption of vehicle	not available
Distance	1 km
Capacity utilisation (including empty returns)	50 % (loaded up and return empty)
Bulk density of transported products	inapplicable
Volume capacity utilisation factor	1

4.2 ASSEMBLY (A5)

The following information describes the scenarios for flows entering the system and flows leaving the system at module A5.

FLOWS ENTERING THE SYSTEM

For flows entering the system at A5 the following scenario is assumed for module A5.

	Value	Unit
<i>Energy consumption for installation/assembly</i>		
Electricity (NL) - low voltage (max 1kV)	0.003	kWh

FLOWS LEAVING THE SYSTEM

The following output flows leaving the system at module A5 are assumed.

Description	Value	Unit
Output materials as result of loss during construction	5	%
Output materials as result of waste processing of materials used for installation/assembly at the building site	0.000	kg
Output materials as result of waste processing of used packaging	0.032	kg

4.3 USE STAGE (B1)

No significant environment impact in the use stage modules, because there is no (significant) emission to air, soil or water.

4 Scenarios and additional technical information

4.4 MAINTENANCE (B2)

Technical maintenance is needed during Use Stage. For maintenance the scenario(s) as mentioned below are included in this EPD.

Description	Service cycle (yr)	Number of cycles (n)	Amount per cycle	Total Amount	Unit
Water	1	14	0.5	7	kg
Cleaning agent	1	14	0.0005	0.007	kg

4.5 REPAIR (B3)

Repairs are not applicable within the functional unit and to achieve the reference service life.

4.6 DE-CONSTRUCTION, DEMOLITION (C1)

No inputs are needed for the product at the de-construction / demolition phase

4.7 TRANSPORT END-OF-LIFE (C2)

The following distances and transport conveyance are assumed for transportation during end of life for the different types of waste processing.

Waste Scenario	Transport conveyance	Not removed (stays in work) [km]	Landfill [km]	Incineration [km]	Recycling [km]	Re-use [km]
debris, mixed via residue (NMD ID 61) gecorrigeerd carbon PU	Lorry (Truck), unspecified (default) market group for (GLO)	0	100	150	50	0
debris, mixed via residue (NMD ID 61) gecorrigeerd carbon Cork	Lorry (Truck), unspecified (default) market group for (GLO)	0	100	150	50	0

The transport conveyance(s) used in the scenario(s) for transport during end of life has the following characteristics.

Value and unit
Vehicle type used for transport
Lorry (Truck), unspecified (default) market group for (GLO)

4 Scenarios and additional technical information

Fuel type and consumption of vehicle	not available
Capacity utilisation (including empty returns)	50 % (loaded up and return empty)
Bulk density of transported products	inapplicable
Volume capacity utilisation factor	1

4.8 END OF LIFE (C3, C4)

The scenario(s) assumed for end of life of the product are given in the following tables.
First the assumed percentages per type of waste processing are displayed, followed by the assumed amounts.

Waste Scenario	Region	Not removed (stays in work) [%]	Landfill [%]	Incineration [%]	Recycling [%]	Re-use [%]
debris, mixed via residue (NMD ID 61) gecorrigeerd carbon PU	NL	0	90	10	0	0
debris, mixed via residue (NMD ID 61) gecorrigeerd carbon Cork	NL	0	90	10	0	0

Waste Scenario	Not removed (stays in work) [kg]	Landfill [kg]	Incineration [kg]	Recycling [kg]	Re-use [kg]
debris, mixed via residue (NMD ID 61) gecorrigeerd carbon PU	0.000	2.430	0.270	0.000	0.000
debris, mixed via residue (NMD ID 61) gecorrigeerd carbon Cork	0.000	0.270	0.030	0.000	0.000
Total	0.000	2.700	0.300	0.000	0.000

4.9 BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARY (D)

The presented Benefits and loads beyond the system boundary in this EPD are based on the following calculated Net output flows in kilograms and Energy recovery displayed in MJ Lower Heating Value.

Waste Scenario	Net output flow [kg]	Energy recovery [MJ]
debris, mixed via residue (NMD ID 61) gecorrigeerd carbon PU	0.000	0.000
debris, mixed via residue (NMD ID 61) gecorrigeerd carbon Cork	0.000	0.000
Total	0.000	0.000

5 Results

For the impact assessment, the characterization factors of the LCIA method EN 15804 +A2 Method v1.0 are used. Long-term emissions (>100 years) are not considered in the impact assessment. The results of the impact assessment are only relative statements that do not make any statements about end-points of the impact categories, exceedance of threshold values, safety margins or risks. The following tables show the results of the indicators of the impact assessment, of the use of resources as well as of waste and other output flows.

5.1 ENVIRONMENTAL IMPACT INDICATORS PER SQUARE METER

CORE ENVIRONMENTAL IMPACT INDICATORS EN15804+A2

Abbr.	Unit	A1	A2	A3	A1- A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D
AP	mol H+ eqv.	6.83E-2	5.18E-4	1.32E-3	7.02E-2	2.37E-6	3.58E-3	0.00E+0	2.87E-4	0.00E+0	0.00E+0	2.47E-4	9.21E-5	1.35E-4	-3.05E-5
GWP-total	kg CO2 eqv.	-8.73E-1	8.94E-2	2.04E-1	-5.80E-1	4.10E-4	7.25E-2	0.00E+0	4.86E-2	0.00E+0	0.00E+0	4.25E-2	3.82E-1	1.42E-2	-2.96E-2
GWP-b	kg CO2 eqv.	-6.35E+0	4.12E-5	-6.48E-2	-6.41E+0	1.89E-7	2.71E-1	0.00E+0	-1.46E-2	0.00E+0	0.00E+0	1.96E-5	1.39E+0	1.04E+1	-1.17E-5
GWP-f	kg CO2 eqv.	5.46E+0	8.93E-2	2.68E-1	5.82E+0	4.09E-4	3.81E-1	0.00E+0	5.32E-2	0.00E+0	0.00E+0	4.25E-2	1.56E-1	1.42E-2	-2.96E-2
GWP-luluc	kg CO2 eqv.	1.04E-2	3.27E-5	2.08E-4	1.06E-2	1.50E-7	5.38E-4	0.00E+0	1.00E-2	0.00E+0	0.00E+0	1.56E-5	2.35E-6	3.97E-6	-1.47E-6
EP-m	kg N eqv.	2.61E-2	1.83E-4	3.95E-4	2.67E-2	8.36E-7	1.36E-3	0.00E+0	2.89E-4	0.00E+0	0.00E+0	8.69E-5	3.99E-5	4.64E-5	-8.10E-6
EP-fw	kg P eqv.	1.93E-3	9.01E-7	2.51E-5	1.96E-3	4.13E-9	9.84E-5	0.00E+0	7.90E-6	0.00E+0	0.00E+0	4.29E-7	1.63E-7	1.59E-7	-6.77E-8
EP-T	mol N eqv.	2.26E-3	2.01E-3	1.48E-3	5.75E-3	9.22E-6	5.13E-4	0.00E+0	1.02E-3	0.00E+0	0.00E+0	9.58E-4	4.11E-4	5.13E-4	-8.91E-5
ODP	kg CFC 11 eqv.	4.19E-6	1.97E-8	5.28E-8	4.26E-6	9.03E-11	2.16E-7	0.00E+0	6.92E-9	0.00E+0	0.00E+0	9.38E-9	1.26E-9	5.86E-9	-3.61E-9
POCP		1.88E-2	5.75E-4	6.52E-4	2.01E-2	2.63E-6	1.07E-3	0.00E+0	2.24E-4	0.00E+0	0.00E+0	2.73E-4	1.02E-4	1.49E-4	-3.19E-5

AP=Acidification (AP) | **GWP-total**=Global warming potential (GWP-total) | **GWP-b**=Global warming potential - Biogenic (GWP-b) | **GWP-f**=Global warming potential - Fossil (GWP-f) | **GWP-luluc**=Global warming potential - Land use and land use change (GWP-luluc) | **EP-m**=Eutrophication marine (EP-m) | **EP-fw**=Eutrophication, freshwater (EP-fw) | **EP-T**=Eutrophication, terrestrial (EP-T) | **ODP**=Ozone depletion (ODP) | **POCP**=Photochemical ozone formation - human health (POCP) | **ADP-f**=Resource use, fossils (ADP-f) | **ADP-mm**=Resource use, minerals and metals (ADP-mm) | **WDP**=Water use (WDP)

5 Results

Abbr.	Unit	A1	A2	A3	A1- A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D
	kg NMVOC eqv.														
ADP-f	MJ	7.94E+1	1.35E+0	3.89E+0	8.47E+1	6.17E-3	4.39E+0	0.00E+0	5.13E-1	0.00E+0	0.00E+0	6.41E-1	9.76E-2	3.97E-1	-5.36E-1
ADP-mm	kg Sb- eqv.	2.47E-5	2.26E-6	1.32E-5	4.01E-5	1.04E-8	2.19E-6	0.00E+0	1.25E-6	0.00E+0	0.00E+0	1.08E-6	8.70E-8	1.30E-7	-2.74E-8
WDP	m3 world eqv.	1.29E+2	4.82E-3	1.34E+0	1.30E+2	2.21E-5	6.50E+0	0.00E+0	5.20E-2	0.00E+0	0.00E+0	2.29E-3	2.05E-2	1.78E-2	-3.80E-3

AP=Acidification (AP) | **GWP-total**=Global warming potential (GWP-total) | **GWP-b**=Global warming potential - Biogenic (GWP-b) | **GWP-f**=Global warming potential - Fossil (GWP-f) | **GWP-luluc**=Global warming potential - Land use and land use change (GWP-luluc) | **EP-m**=Eutrophication marine (EP-m) | **EP-fw**=Eutrophication, freshwater (EP-fw) | **EP-T**=Eutrophication, terrestrial (EP-T) | **ODP**=Ozone depletion (ODP) | **POCP**=Photochemical ozone formation - human health (POCP) | **ADP-f**=Resource use, fossils (ADP-f) | **ADP-mm**=Resource use, minerals and metals (ADP-mm) | **WDP**=Water use (WDP)

ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS EN15804+A2

Abbr.	Unit	A1	A2	A3	A1- A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D
ETP-fw	CTUe	4.91E-2	1.20E+0	2.15E+0	3.40E+0	5.50E-3	1.25E+0	0.00E+0	4.04E+0	0.00E+0	0.00E+0	5.72E-1	7.85E-1	2.58E-1	-3.91E-2
PM	disease incidence	7.58E-10	8.03E-9	4.10E-9	1.29E-8	3.68E-11	1.36E-9	0.00E+0	4.17E-9	0.00E+0	0.00E+0	3.82E-9	7.77E-10	2.62E-9	-1.30E-10
HTP-c	CTUh	1.30E-11	3.90E-11	7.71E-11	1.29E-10	1.78E-13	2.51E-11	0.00E+0	8.64E-11	0.00E+0	0.00E+0	1.85E-11	4.32E-11	5.97E-12	-2.31E-12
HTP-nc	CTUh	3.19E-10	1.31E-9	1.56E-9	3.19E-9	6.02E-12	6.10E-10	0.00E+0	1.85E-9	0.00E+0	0.00E+0	6.25E-10	1.64E-9	1.83E-10	-3.82E-11
IR	kBq U235 eqv.	2.80E-4	5.64E-3	6.97E-3	1.29E-2	2.59E-5	1.21E-3	0.00E+0	2.18E-3	0.00E+0	0.00E+0	2.69E-3	2.53E-4	1.63E-3	-2.00E-4
SQP	Pt	8.58E+1	1.17E+0	1.44E+0	8.84E+1	5.35E-3	4.53E+0	0.00E+0	1.12E+0	0.00E+0	0.00E+0	5.56E-1	5.87E-2	8.34E-1	-9.17E-3

ETP-fw=Ecotoxicity, freshwater (ETP-fw) | **PM**=Particulate Matter (PM) | **HTP-c**=Human toxicity, cancer (HTP-c) | **HTP-nc**=Human toxicity, non-cancer (HTP-nc) | **IR**=Ionising radiation, human health (IR) | **SQP**=Land use (SQP)

5 Results

CLASSIFICATION OF DISCLAIMERS TO THE DECLARATION OF CORE AND ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS

ILCD classification	Indicator	Disclaimer
ILCD type / level 1	Global warming potential (GWP)	None
	Depletion potential of the stratospheric ozone layer (ODP)	None
	Potential incidence of disease due to PM emissions (PM)	None
ILCD type / level 2	Acidification potential, Accumulated Exceedance (AP)	None
	Eutrophication potential, Fraction of nutrients reaching freshwater end compartment (EP-freshwater)	None
	Eutrophication potential, Fraction of nutrients reaching marine end compartment (EP-marine)	None
	Eutrophication potential, Accumulated Exceedance (EP-terrestrial)	None
	Formation potential of tropospheric ozone (POCP)	None
	Potential Human exposure efficiency relative to U235 (IRP)	1
ILCD type / level 3	Abiotic depletion potential for non-fossil resources (ADP-minerals&metals)	2
	Abiotic depletion potential for fossil resources (ADP-fossil)	2
	Water (user) deprivation potential, deprivation-weighted water consumption (WDP)	2
	Potential Comparative Toxic Unit for ecosystems (ETP-fw)	2
	Potential Comparative Toxic Unit for humans (HTP-c)	2
	Potential Comparative Toxic Unit for humans (HTP-nc)	2
	Potential Soil quality index (SQP)	2

Disclaimer 1 – 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 from some construction materials is also not measured by this indicator.

Disclaimer 2 – The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

5 Results

5.2 INDICATORS DESCRIBING RESOURCE USE AND ENVIRONMENTAL INFORMATION BASED ON LIFE CYCLE INVENTORY (LCI)

PARAMETERS DESCRIBING RESOURCE USE

Abbr.	Unit	A1	A2	A3	A1- A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D
PERE	MJ	9.07E+1	1.69E-2	1.09E+0	9.18E+1	7.73E-5	4.60E+0	0.00E+0	1.57E-1	0.00E+0	0.00E+0	8.03E-3	3.23E-3	3.21E-3	-2.31E-3
PERM	MJ	4.27E+1	0.00E+0	4.27E-1	4.31E+1	0.00E+0	2.15E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
PERT	MJ	1.34E+2	1.69E-2	1.52E+0	1.35E+2	7.73E-5	6.77E+0	0.00E+0	1.57E-1	0.00E+0	0.00E+0	8.03E-3	3.23E-3	3.21E-3	-2.31E-3
PENRE	MJ	4.03E+1	1.43E+0	2.99E+0	4.47E+1	6.55E-3	2.40E+0	0.00E+0	5.60E-1	0.00E+0	0.00E+0	6.81E-1	1.05E-1	4.22E-1	-5.44E-1
PENRM	MJ	3.94E+1	0.00E+0	1.13E+0	4.05E+1	0.00E+0	2.03E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	-4.78E-2
PENRT	MJ	7.97E+1	1.43E+0	4.12E+0	8.53E+1	6.55E-3	4.42E+0	0.00E+0	5.60E-1	0.00E+0	0.00E+0	6.81E-1	1.05E-1	4.22E-1	-5.92E-1
SM	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
RSF	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
NRSF	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
FW	M3	4.37E+0	1.64E-4	4.56E-2	4.42E+0	7.52E-7	2.21E-1	0.00E+0	1.76E-3	0.00E+0	0.00E+0	7.81E-5	3.48E-4	4.24E-4	-5.36E-5

PERE=renewable primary energy ex. raw materials | **PERM**=renewable primary energy used as raw materials | **PERT**=renewable primary energy total | **PENRE**=non-renewable primary energy ex. raw materials | **PENRM**=non-renewable primary energy used as raw materials | **PENRT**=non-renewable primary energy total | **SM**=use of secondary material | **RSF**=use of renewable secondary fuels | **NRSF**=use of non-renewable secondary fuels | **FW**=use of net fresh water

OTHER ENVIRONMENTAL INFORMATION DESCRIBING WASTE CATEGORIES

Abbr.	Unit	A1	A2	A3	A1- A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D
HWD	Kg	3.03E-5	3.41E-6	3.03E-6	3.67E-5	1.56E-8	2.12E-6	0.00E+0	2.13E-6	0.00E+0	0.00E+0	1.62E-6	3.12E-7	5.94E-7	-5.88E-7
NHWD	Kg	3.67E-1	8.54E-2	1.61E-2	4.69E-1	3.91E-4	1.67E-1	0.00E+0	2.90E-2	0.00E+0	0.00E+0	4.07E-2	1.64E-2	2.70E+0	-2.55E-4
RWD	Kg	1.84E-3	8.85E-6	2.49E-5	1.88E-3	4.05E-8	9.45E-5	0.00E+0	2.99E-6	0.00E+0	0.00E+0	4.21E-6	3.39E-7	2.61E-6	-2.66E-7

HWD=hazardous waste disposed | **NHWD**=non hazardous waste disposed | **RWD**=radioactive waste disposed

5 Results

ENVIRONMENTAL INFORMATION DESCRIBING OUTPUT FLOWS

Abbr.	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	C1	C2	C3	C4	D
CRU	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
MFR	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	1.68E-3	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
MER	Kg	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
EET	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	-2.03E-1
EEE	MJ	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	-1.18E-1

CRU=Components for re-use | MFR=Materials for recycling | MER=Materials for energy recovery | EET=Exported Energy Thermic | EEE=Exported Energy Electric

5 Results

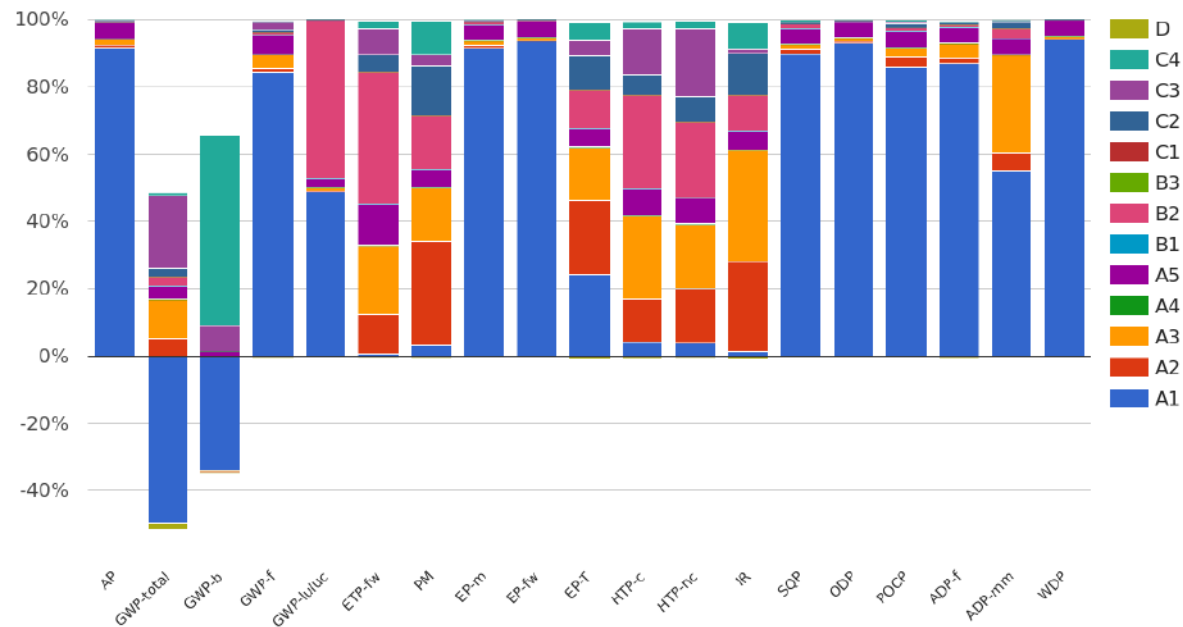
5.3 INFORMATION ON BIOGENIC CARBON CONTENT PER SQUARE METER

BIOGENIC CARBON CONTENT

The following Information describes the biogenic carbon content in (the main parts of) the product at the factory gate per square meter:

Biogenic carbon content	Amount	Unit
Biogenic carbon content in the product	0	kg C
Biogenic carbon content in accompanying packaging	0	kg C

6 Interpretation of results



By interpreting the contribution analysis of the modules, stakeholders can gain insights into the specific stages of the Corques Liquid Lino lifecycle that have the greatest environmental impact. This information can inform decision-making and guide efforts to minimize the product's overall environmental footprint.

For this calculation we didn't include replacement of the material. The lifespan is over 15 years and the EPD is based on that as well. Other modules like usage and incineration are out of scope as they don't apply to this product.

A1 (raw materials) is the biggest impact factor for most indicators. This confirms that the installation has a limited impact on environmental factors. A2 and A3 also have an impact due to distance travelled for raw materials and energy consumed for production.

7 References

ISO 14040

ISO 14040:2006-10, Environmental management - Life cycle assessment - Principles and framework; EN ISO 14040:2006

ISO 14044

ISO 14044:2006-10, Environmental management - Life cycle assessment - Requirements and guidelines; EN ISO 14040:2006

ISO 14025

ISO 14025:2011-10: Environmental labels and declarations — Type III environmental declarations — Principles and procedures

EN 15804+A2

EN 15804+A2: 2019: Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

8 Contact information

Publisher	Operator	Owner of declaration
 Duracryl International BV Elandstraat 91 2901 BK Capelle aan den IJssel, NL E-mail: info@duracryl.com Website: www.duracryl.com	 Stichting NMD Visseringlaan 22b 2288 ER Rijswijk, NL E-mail: info@milieudatabase.nl Website: www.milieudatabase.nl	 Duracryl International BV Elandstraat 91 2901 BK Capelle aan den IJssel, NL E-mail: info@duracryl.com Website: www.duracryl.com