PROGRAMME:
The International EPD® System,
www.environdec.com

PROGRAMME OPERATOR:
EPD International AB

TYPE OF EPD:
EPD of multiple products, based on the average results of the product group

REGISTRATION CODE
EPD-IES-0020193

REGISTRATION DATE
2025/08/11

UNTIL DATE
2030/08/11

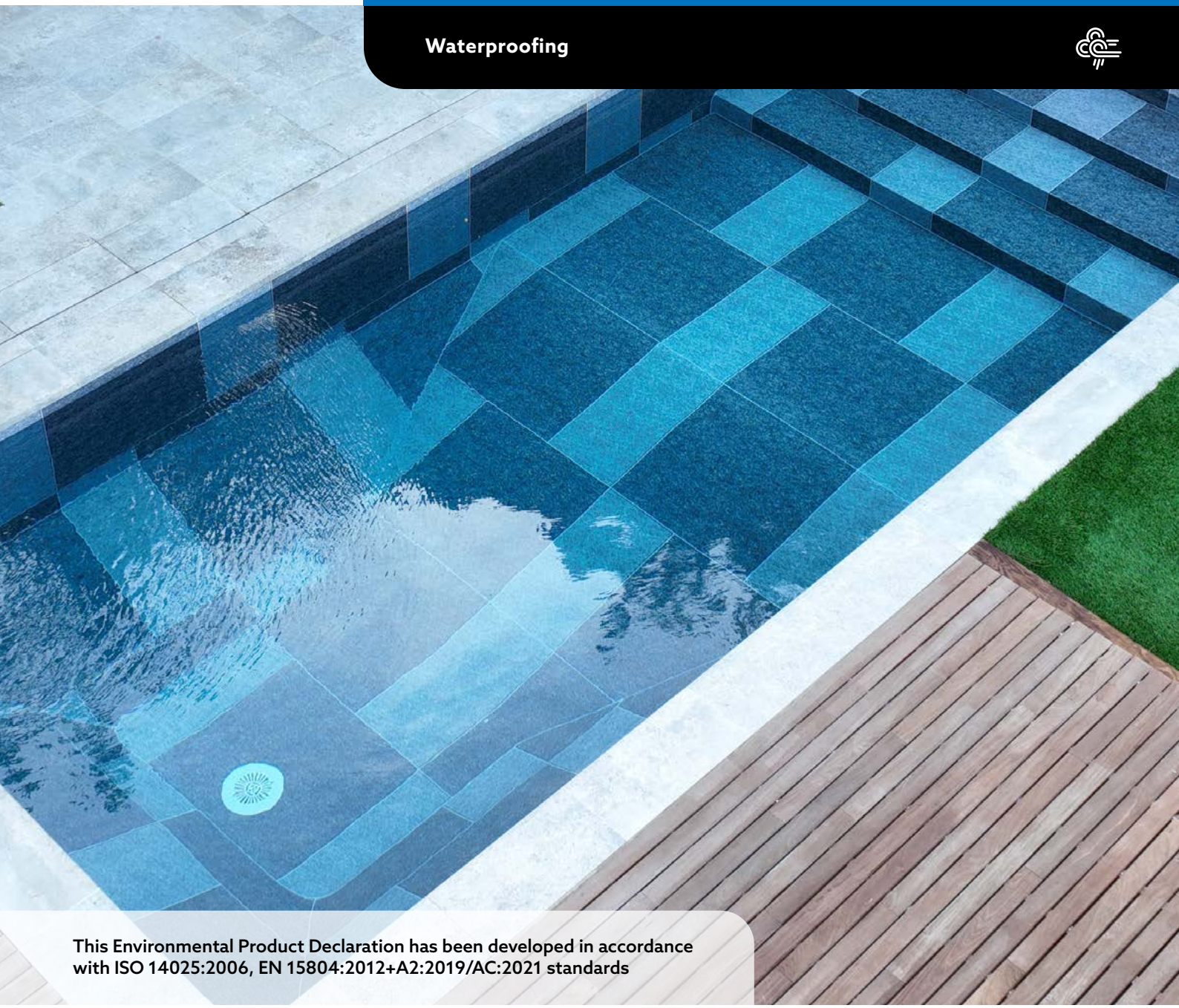
EPD VERSION
1

SOPREMAPOOL

ONE, PREMIUM, DESIGN, 3D, GRIP, FEELING

ENVIRONMENTAL PRODUCT DECLARATION

Waterproofing



This Environmental Product Declaration has been developed in accordance with ISO 14025:2006, EN 15804:2012+A2:2019/AC:2021 standards

EPD INTERNATIONAL EPD SYSTEM

ECO PLATFORM EPD VERIFIED

SOPREMA

General Information

EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden,
Website: www.environdec.com, E-mail: support@environdec.com

EPDs within the same product category but registered 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 version number up to the first two digits) 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 equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

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

ACCOUNTABILITIES FOR PCR, LCA AND INDEPENDENT, THIRD-PARTY VERIFICATION

PRODUCT CATEGORY RULES (PCR)

PCR 2019:14 Construction products version 2.0.1 (EN 15804+A2) C-PCR-032 Flexible sheets for waterproofing (EN 17388:2024). Version: 2025-04-24

PCR review was conducted by:

The Technical Committee of the International EPD System. See www.environdec.com for a list of members.

Review Chair: Rob Rouwette (chair), Noa Meron (co-chair)

The review panel may be contacted via the Secretariat www.environdec.com/contact.

LIFE CYCLE ASSESSMENT (LCA)

LCA accountability: SGS TECNOS S.A.U.

THIRD-PARTY VERIFICATION

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:

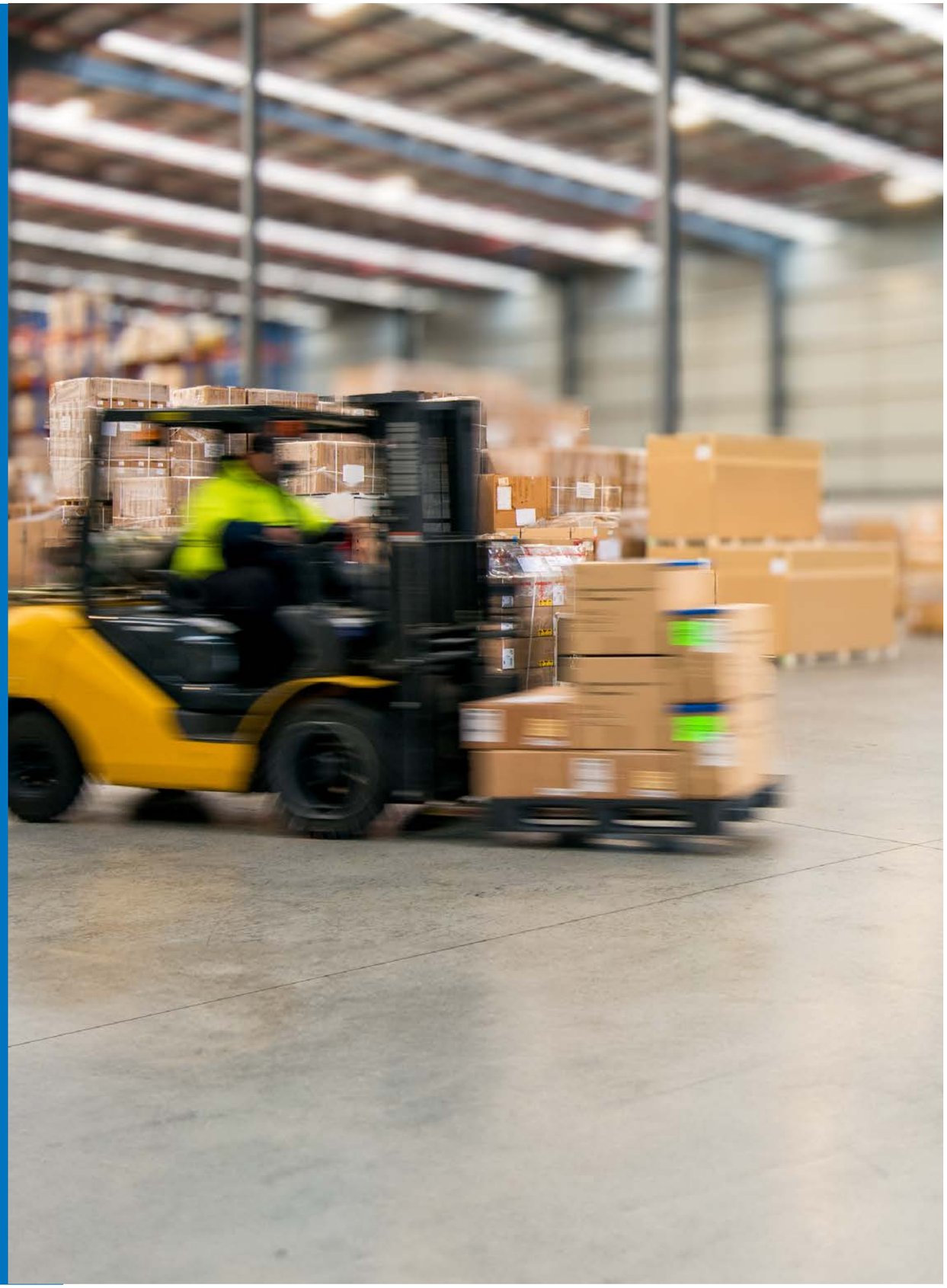
Individual EPD verification with a pre-verified LCA/EPD tool

Third-party verifier: Marcel Gómez Ferrer from Marcel Gómez Consultoria Ambiental (www.marcelgomez.com);
Tel: 0034 630 64 35 93; Email: info@marcelgomez.com

Approved by: The International EPD® System

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

☐ YES ☑ NO



The Company

THE SOPREMA GROUP

An independent group since its inception in 1908, SOPREMA specializes in the design and implementation of cutting-edge waterproofing systems and thermal and acoustic insulation solutions, in line with the requirements of sustainable construction.

With the collaboration of over 12,000 people worldwide and a turnover of 5,14 billion Euros in 2024, the SOPREMA Group has a global industrial and commercial presence, comprising 128 production plants, more than 130 branches, and over 70 distributors. It operates in 90 countries with 24 Research and Development centers and has 62 technical training centers capable of passing on the technical expertise acquired over a century to new generations.

The SOPREMA product range, the result of close collaboration between the marketing and Research and Development departments, is innovative and in perfect harmony with market needs and current standards. SOPREMA's success is based on a fundamental principle: focusing on ideas.

SOPREMA's products and services aim to meet the needs of construction professionals, whether it be waterproofing with synthetic or bituminous membranes, thermal and acoustic insulation, liquid products, or civil engineering works – SOPREMA always has the solution.

SOPREMA offers high-performance technological products, constantly optimized through Research and Development in an eco-design logic, boasting exceptional characteristics in terms of robustness, reliability, and longevity.

At SOPREMA, sustainability is an essential driver that propels us towards the creation of a sustainable construction model in two main aspects: developing high-energy efficiency products and adopting an approach oriented towards the life cycle analysis of our products. Frosinone production plant has the certification of quality and environmental management system according to ISO 9001:2015 (FR18/81842815.00) and ISO 14001:2015 (FR18/81842816).

HEADQUARTER
Soprema
15 rue de Saint Nazaire
67100 STRASBOURG - France
www.soprema.com

PRODUCTION PLANT
Soprema Srl, Via Selva Piana, 21
03020 Villa Santo Stefano (FR) - Italy
info@soprema.it - www.soprema.it

SOPREMAPOOL
Product Information

SOPREMAPOOL offers a wide range of reinforced synthetic membranes for lining pool basins. These membranes are manufactured using a cast process and consist of four layers, with a perfectly centered polyester reinforcing mesh between the second and third layers. Available in multiple colors and designs, with or without texture, SOPREMAPOOL membranes provide both aesthetic appeal and high durability.

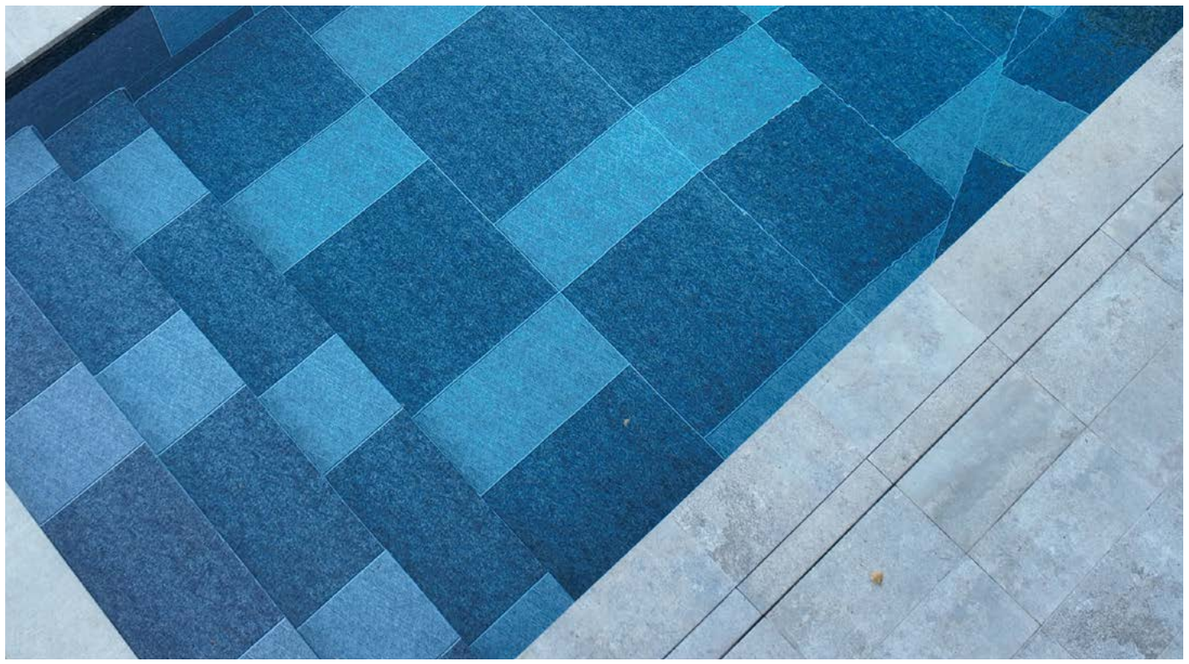
KEY FEATURES:

- Optimal welding for easy and quick installation.
- High resistance to atmospheric agents and UV rays
- «BIO SHIELD» treatment that guarantees total resistance to the formation of microorganisms and prevents any molecular change.
- Resistance against standard chemicals used for pool maintenance
- High tensile strength and dimensional stability provided by the polyester reinforcement.

Designed to meet the stringent performance criteria of the European EN 15836-2:2010 standard, SOPREMAPOOL membranes ensure superior quality and longevity.

The embossed SOPREMAPOOL membranes feature a textured surface tested for slip prevention in compliance with European standard EN 13451-1 (as per Annex B of EN 15836-2) and DIN 51097 (1992).

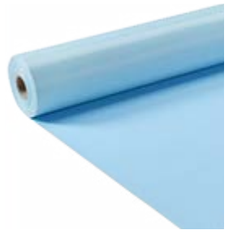
For the technical documentation consult www.sopremapool.com



Products included in the EPD

The EPD corresponds to a virtual average product, constructed on the basis of production volumes. The associated variability is set out in the additional information section.

SOPREMAPOOL ONE



A 1.5 mm PVC reinforced membrane with high resistance to weathering, UV rays, and microorganisms.

PRODUCT ADVANTAGES:

- Flexible
- Smooth
- Available in multiple intense colors

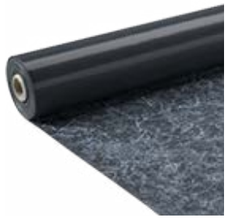
SOPREMAPOOL PREMIUM

A 1.5 mm PVC reinforced membrane with a varnished coating for enhanced durability and superior resistance to color fading, stains, microorganisms, and UV rays.

PRODUCT ADVANTAGES:

- Flexible
- Smooth
- Varnished coating for extra protection
- Available in multiple intense colors

SOPREMAPOOL DESIGN

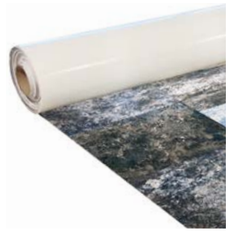


A 1.5 mm PVC reinforced membrane with a varnished coating, ensuring greater durability and protection against color fading, stains, microorganisms, and UV rays.

PRODUCT ADVANTAGES:

- Flexible
- Smooth
- Varnished coating for extra protection
- Exclusive and diverse designs

SOPREMAPOOL 3D



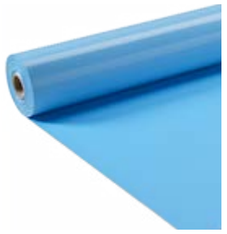
A 1.8 mm PVC reinforced membrane with a varnished coating for extra durability and resistance to color fading, stains, microorganisms, and UV rays. It features an embossed finish, providing a stylish texture that is comfortable to the touch. The embossed motifs add aesthetic value while maintaining the benefits of reinforced PVC lining, including easy installation and high waterproofing capacity.

PRODUCT ADVANTAGES:

- Stylish and attractive design
- Quick and easy installation
- Enhanced sensory experience
- Varnished coating for added protection
- Exclusive embossed designs

Note: for all the technical information, refer to the technical data sheet of the products.

SOPREMAPOOL GRIP



A 1.5 mm PVC reinforced membrane with high resistance to weathering, UV rays, and microorganisms. It features an embossed finish that provides a non-slip effect, ideal for pool areas such as stairs.

PRODUCT ADVANTAGES:

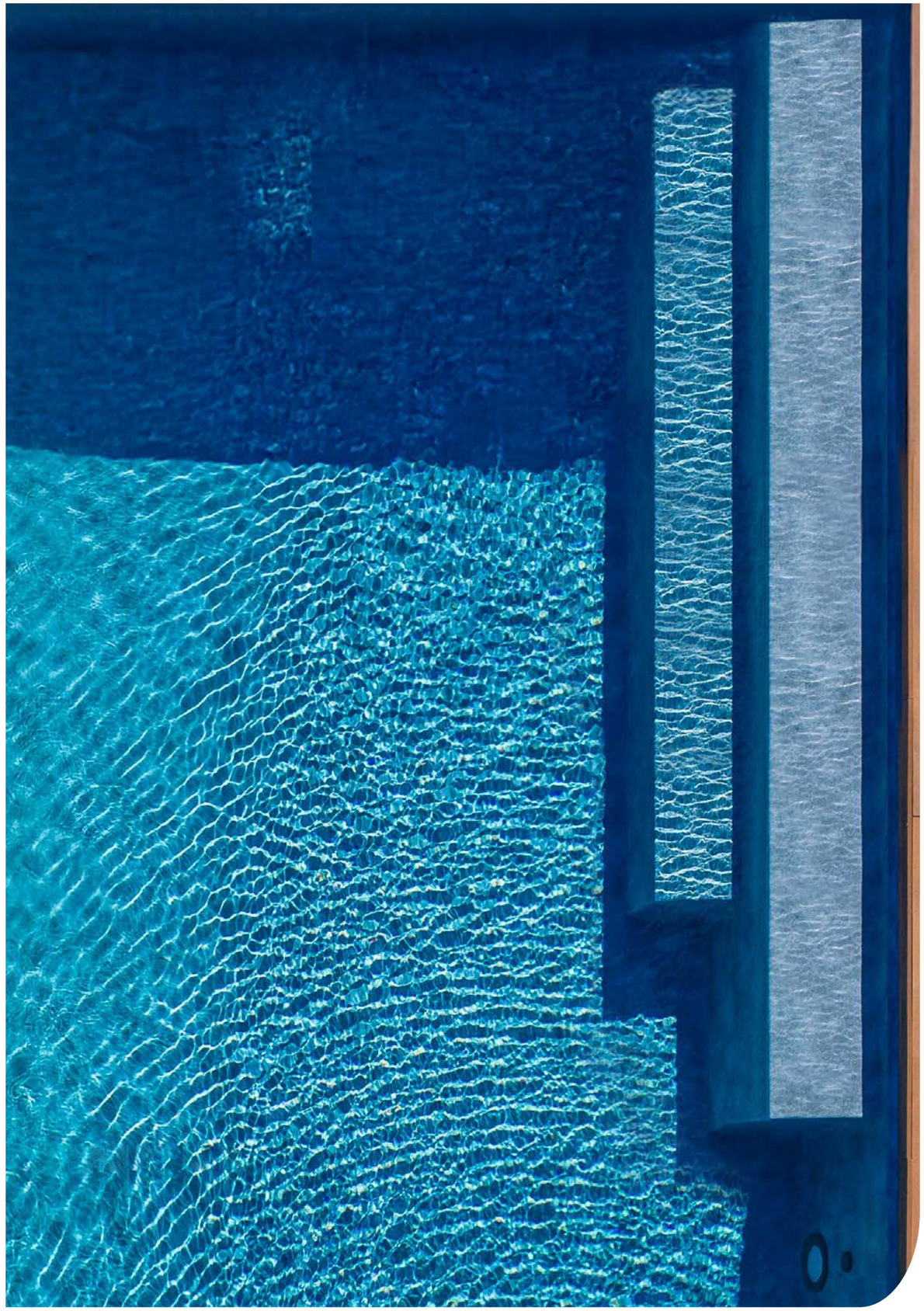
- Flexible
- Non-slip surface for safety
- Available in a variety of colors and designs

SOPREMAPOOL FEELING

A 1.5 mm PVC reinforced membrane with high resistance to weathering, UV rays, and microorganisms. It features an embossed finish, offering a soft and comfortable texture for an enhanced swimming experience.

PRODUCT ADVANTAGES:

- Quick and easy installation
- Enhanced sensory experience
- Available in multiple intense colors



Note: for all the technical information, refer to the technical data sheet of the products.

Scope end type of EPD

System diagram of the processes included in the LCA, divided into life cycle stages and information modules as defined by EN 15804. This statement may not be comparable with those developed under other programs or based on different reference documents. In particular, it may not be comparable with declarations not prepared according to EN 15804 (EN 15804:2012 + A2:2019/AC:2021). Similarly, environmental declarations may not be comparable if the data sources, information modules, or scenarios considered differ.

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GEOGRAPHY																
EU	IT	IT	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO
SHARE OF PRIMARY DATA																
14% GWP-GHG																
VARIATIONS PRODUCTS																
13,4% / -1,7%[1]																
VARIATIONS SITES																
0%																

PROCESS	SOURCE TYPE	SOURCE	REFERENCE YEAR	DATA CATEGORY	SHARE OF PRIMARY DATA, OF GWP GHG RESULTS FOR A1-A3
Product manufacturing	Database	Ecoinvent v3.10	2023	Primary data	0,00%
Electricity generation for product manufacturing	Collected data	EPD owner	2023	Secondary data	6,71%
Raw material transportation	Collected data	EPD owner	2023	Secondary data	6,48%
Packaging production	Collected data	EPD owner	2023	Secondary data	1,08%
Other processes	Collected data	EPD owner	2023	Secondary data	0,04%
Total share of primary data in GWP-GHG results for A1-A3					**14%**

[1] The deviation is calculated by comparing the maximum and minimum values with respect to the average value.

LCA Information

TYPE OF EPD

Cradle to Grave + Module D.

UN CPC

3699 Articles of plastics n.e.c.

FUNCTIONAL UNIT

1 m^2 of surface area covered by the membrane, including 4,8% overlap, with a thickness of 1.55 mm.The weight per 1m^2 of installed membrane (including overlaps) is 1,99 kg/m^2 and the conversion factor to 1kg is 0,502 m^2.

REFERENCE SERVICE LIFE (RSL)

30 years.
The membrane service life value is provided by EN17388 PCR for flexible sheets for waterproofing and used exclusively for calculations. It may not be representative of the real service lifetimes. Service lifetime is also influenced by type of membrane, thickness, design and use conditions and regular maintenance according to the manufacturer's indications.

SOFTWARE

SimaPro 9.6.0.1

ENVIRONMENTAL IMPACT ASSESSMENT METHOD

EN 15804 Standard: EN 15804:2012 + A2:2019/AC:2021. Other models: CML-IA baseline V3.07/ EU25; ReCiPe 2016 Midpoint (H) V1.06 / World (2010) H; EDIP 2003 V1.07 / Default; Cumulative Energy Demand V1.11; EF 3.1 Method (adapted) V1.02 / EF 3.1 normalization and weighting set; IPCC 2021 GWP 100a.

MAIN DATABASES FOR GENERIC DATA

Ecoinvent 3.10 (allocation, cut-off by classification).

GEOGRAPHICAL SCOPE FOR WHICH GEOGRAPHICAL LOCATION OF END-OF-LIFE THE PRODUCT'S PERFORMANCE HAS BEEN CALCULATED

Global

REPRESENTATIVE YEAR FOR THE INVENTORY FOR THE MANUFACTURING

2023

CUT OFF

A minimum of 99% of energy consumption in manufacturing facilities is accounted for, and 99% of the raw material mass is considered.

Excluded Processes:

- Manufacturing of production equipment, buildings, or other capital goods
- Transportation of personnel to and within the plant
- Research and development activities
- Long-term emissions

ALLOCATION

Whenever possible, allocations have been avoided. When unavoidable, a mass-based physical allocation has been applied. Data on system composition have been directly obtained and analyzed following the principles of modularity and the polluter-pays principle.

AVERAGING

The LCA study assessed the average environmental impact of SOPREMAPOOL membranes by calculating a weighted average of the environmental impacts across all product ranges produced in 2023. The weighting was based on the surface area produced for each range, ensuring the results accurately represent each product range's proportional contribution to total production. The GWP-GHG variation among different SOPREMAPOOL products exceeds 10%, so this document also includes variations in other impact categories.

DATA QUALITY

The data collected on components and energy correspond to the year 2023 and include information on raw material consumption and energy use. The plausibility and consistency of the collected data have been verified, ensuring good data quality.
Material and energy consumption invoices have been collected and checked. The study covers at least 95% of the materials and energy per module and at least 99% of the total material and energy use of each unit process.

Content Declaration including Packaging

The average composition of the products, as a representative range for all the type and thicknesses, is provided in the table below, along with average packaging composition. Based on our knowledge, no substance listed as a candidate for Authorization (Candidate List SVHC) or subject to Authorization (Annex XIV - REACH) is contained in the product at a concentration greater than 0.1% weight/weight.

PRODUCT COMPONENTS	WEIGHT %	POST-CONSUMER RECYCLED MATERIAL; WEIGHT - %	BIOGENIC MATERIAL; WEIGHT - % OF PRODUCT	BIOGENIC MATERIAL kg C/m²
PVC	55%	0%	0%	0.00
Plasticisers	31%	0%	0%	0.00
Additives and pigments	6%	0%	0%	0.00
Reinforcing material	6%	0%	0%	0.00
Paper	2%	0%	2%	0.02
Total	**1.90 kg/m² - 100%**	**0%**	**0%**	**0.00**

PACKAGING MATERIALS	WEIGHT kg/m²	WEIGHT - % (VERSUS THE PRODUCT)	BIOGENIC MATERIAL kg C/m²
PALLET	0.0610	3,2%	0.031
CARDBOARD CORE	0.0885	4,65%	0.044
PLASTIC FILM	0.004	0,2%	0.000
TOTAL	0.153	8,05%	0.075

RESULTS BY DECLARED UNIT

BIOGENIC CARBON CONTENT	QUANTITY (KG C)
BIOGENIC CARBON CONTAINED IN THE PRODUCT	0.000
BIOGENIC CARBON CONTAINED IN PACKAGING	0.075

Note: 1 kg of biogenic carbon is equivalent to 44/12 kg of CO_2

Production process description

The SOPREMAPOOL reinforced synthetic membranes are manufactured by cast process with high quality raw materials.

Composed of four layers with different and complementary formulations, introducing a polyester reinforcement between the second and third layers.

The membranes can be directly packaged (SOPREMAPOOL ONE / PREMIUM / DESIGN) or embossed and then packaged (SOPREMAPOOL 3D / GRIP / FEELING).

PREPARATION OF FORMULATIONS

MIXING OF THE RAW MATERIALS TO PREPARE THE PLASTISOLS

FIRST LAYER

APPLICATION OF COATING LAYER AND GELIFICATION

SECOND LAYER

APPLICATION OF THE SECOND COATING LAYER, INTRODUCTION OF REINFORCEMENT AND GELIFICATION

THIRD LAYER

APPLICATION OF THE THIRD COATING LAYER AND GELIFICATION

FOURTH LAYER

APPLICATION OF THE FOURTH COATING LAYER AND GELIFICATION

EMBOSSING

THE TEXTURED MEMBRANES ARE PROCESSED IN THE EMBOSSING LINE.

Calculation rules

A1
UPSTREAM

A2+A3
CORE

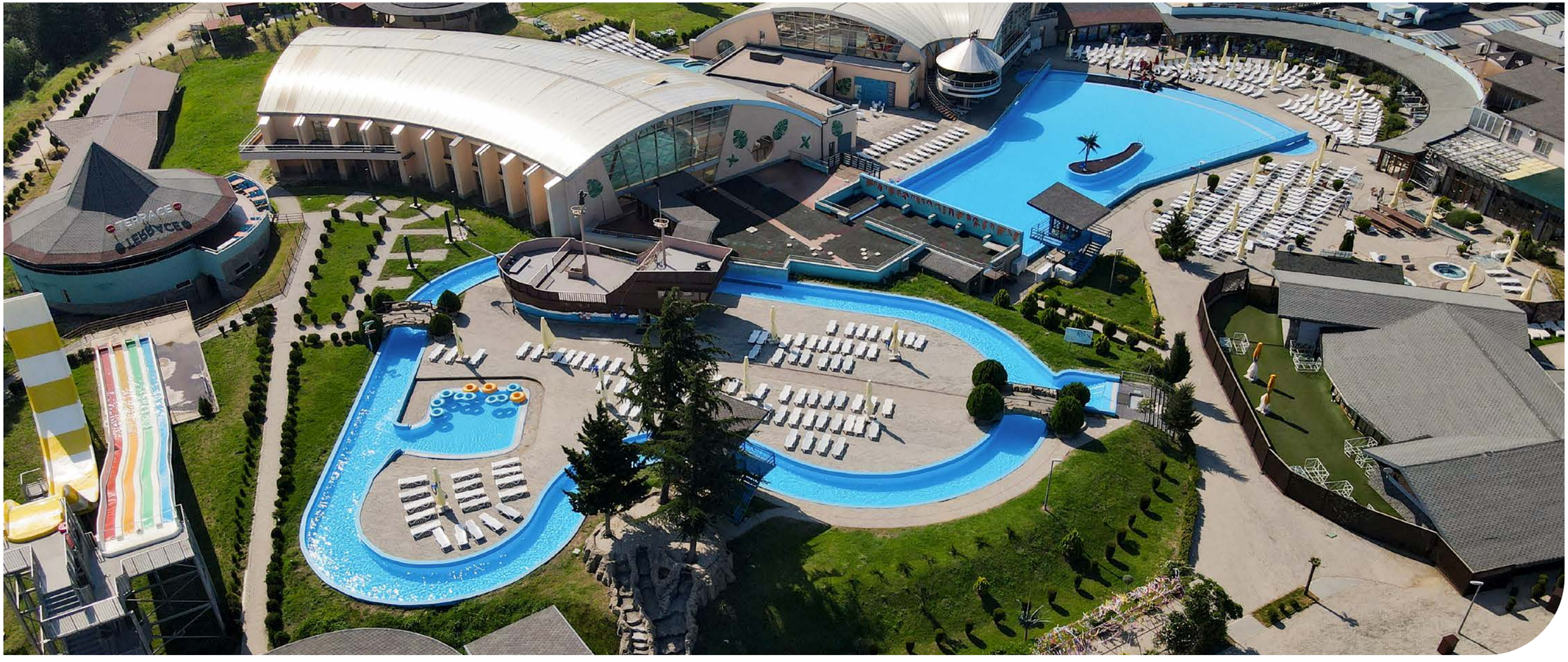
A4
TRANSPORT

A5
INSTALLATION

B
USE

C1+C2+C3+C4
END OF USE

D
RESOURCE RECOVERY



Calculation rules

A1
UPSTREAM

A2+A3
CORE

A4
TRANSPORT

A5
INSTALLATION

B
USE

C1+C2+C3+C4
END OF USE

D
RESOURCE RECOVERY

PRODUCT STAGE

A1 - A3

- Raw material supply (A1)
- Energy sources used in manufacturing (A1)
- Raw materials transport to the plant, considering Euro VI truck and specific supplier distances (A2)
- Manufacturing process (A3)
- The electricity mix used in manufacturing, based on the manufacturer's energy mix of 0,3129 kg CO_2/kWh (A3)
- Manufacturing waste treatment and transport, considering that 44% of the packaging waste generated during the production process is sent to landfill (A3)

CONSTRUCTION PROCESS STAGE

A4

This module accounts for the transport of the membranes from the production site to the application site, including the possibility of intermediate storage. It considers weighted distances by sells averaged based on the type of transport used and the product's final destination, as follows:

- Average distance: 1205 km land and 532 km sea.
- Truck with an average load of 16-32 t (Euro VI) for land transport and medium cargo ship for sea transport.
- Load capacity utilization, including return transport, is assumed as the % in the Ecoinvent database with a predetermined volume factor of 1, bulk density: 1200 kg/m^3.

CONSTRUCTION PROCESS STAGE

A5

This module covers product installation, including packaging waste, the use of PVC sealant in the most representative application scenario for synthetic membranes, and excludes impacts from optional products or accessories. Parameters considered:

- Overlapping factor: 4,8%
- Secondary materials used in installation: 0.01 kg/m^2 Liquid PVC
- Electricity consumption: 0.07 kWh/m^2
- On-site installation product waste: 1% - 0.019 kg/m^2
- Waste collection and treatment: 44% of product packaging waste is landfilled (0,086 kg/m^2), while the remaining 56% is destined for recycling (0,068 kg/m^2)

USE STAGE

B1 - B7

The product does not generate emissions during use (B1). The product's performance indicates that its service life matches that of the building or pavement where it is installed. Once applied, system components require no end-user intervention (B2-B5). The product does not consume water or electricity during its operational life. Energy and emission savings from its insulating properties have not been accounted for (B6-B7)

Calculation rules

A1 UPSTREAM

A2+A3 CORE

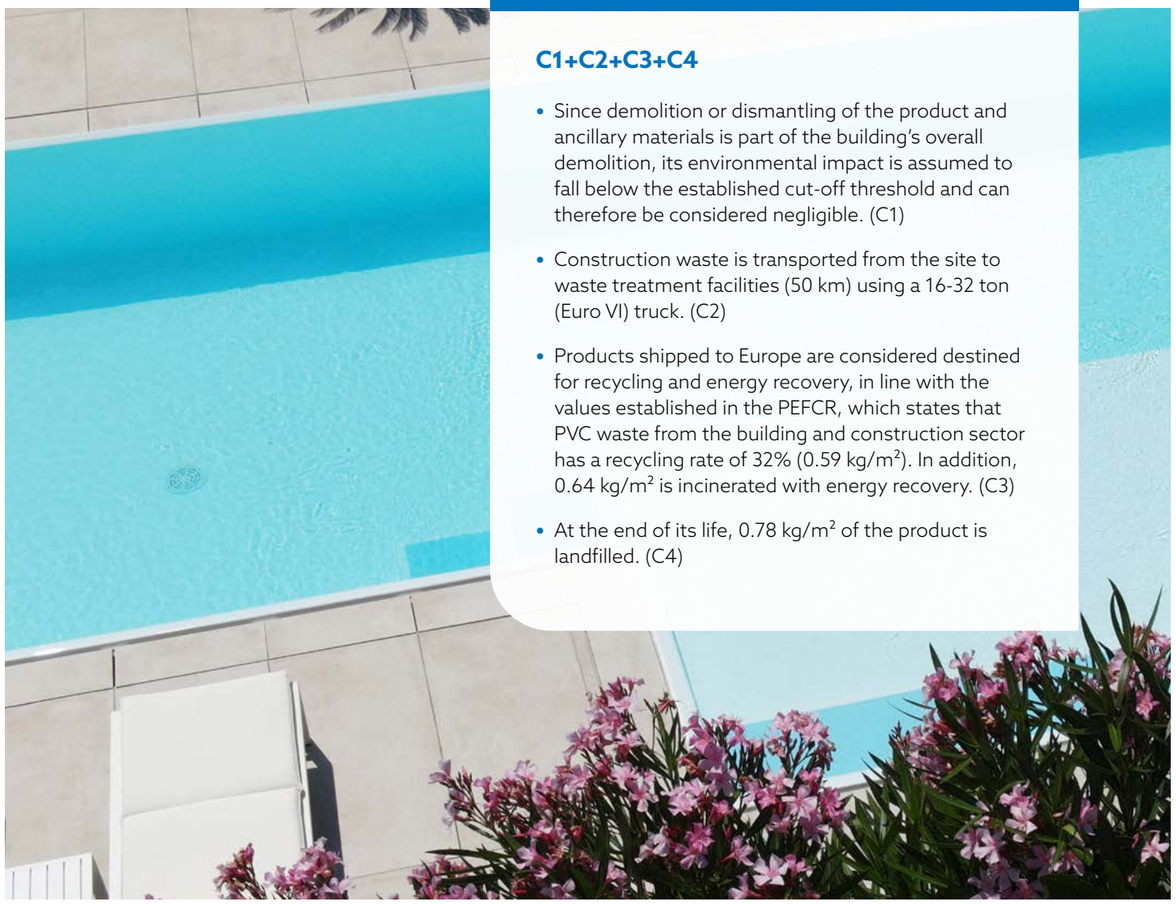
A4 TRANSPORT

A5 INSTALLATION

B USE

C1+C2+C3+C4 END OF USE

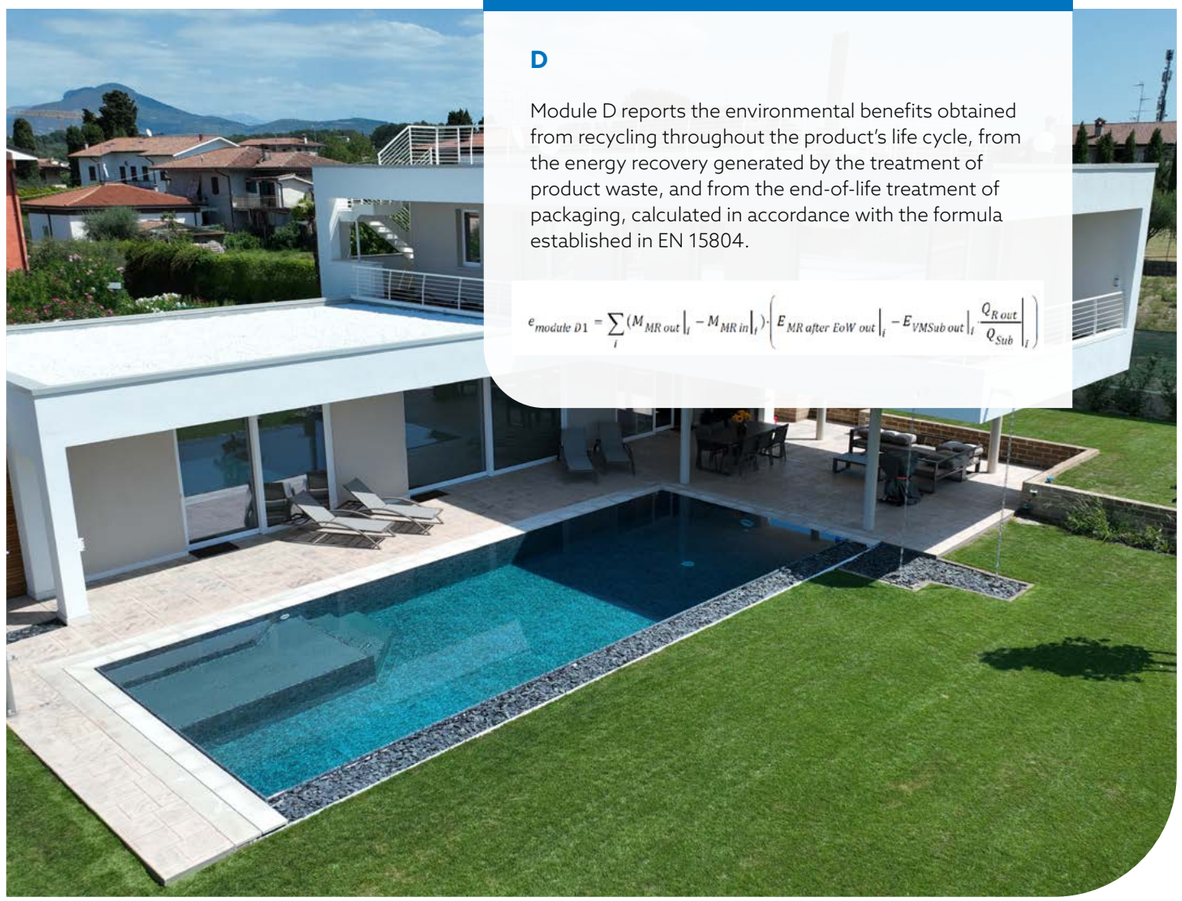
D RESOURCE RECOVERY



END OF LIFE STAGE

C1+C2+C3+C4

- Since demolition or dismantling of the product and ancillary materials is part of the building's overall demolition, its environmental impact is assumed to fall below the established cut-off threshold and can therefore be considered negligible. (C1)
- Construction waste is transported from the site to waste treatment facilities (50 km) using a 16-32 ton (Euro VI) truck. (C2)
- Products shipped to Europe are considered destined for recycling and energy recovery, in line with the values established in the PEFCR, which states that PVC waste from the building and construction sector has a recycling rate of 32% (0.59 kg/m^2). In addition, 0.64 kg/m^2 is incinerated with energy recovery. (C3)
- At the end of its life, 0.78 kg/m^2 of the product is landfilled. (C4)



BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES

D

Module D reports the environmental benefits obtained from recycling throughout the product's life cycle, from the energy recovery generated by the treatment of product waste, and from the end-of-life treatment of packaging, calculated in accordance with the formula established in EN 15804.

$$e_{module\ D1} = \sum_i \left(M_{MR\,out}\big|_i - M_{MR\,in}\big|_i\right) \cdot \left(E_{MR\,after\ EoW\ out}\big|_i - E_{VMSub\,out}\big|_i \frac{Q_{R\,out}}{Q_{Sub}}\Big|_i\right)$$

Results are declared per 1 m^2 including 4,8% overlap, with 1.55 mm and 1,99 kg/$m^2$of average product.

ENVIRONMENTAL PERFORMANCE

SOPREMAPOOL		PRODUCT STAGE	CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				RESOURCE RECOVERY STAGE
IMPACT CATEGORY	UNIT	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Potential - total (GWP-total)	kg CO2 eq.	7,05E+00	4,82E-01	8,44E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,51E-02	5,69E-01	1,94E-02	-1,22E+00
Global Warming Potential - fossil fuels (GWP-fossil)	kg CO2 eq.	7,32E+00	4,81E-01	5,69E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,51E-02	5,69E-01	1,94E-02	-1,21E+00
Global Warming Potential - biogenic (GWP-biogenic)	kg CO2 eq.	-2,74E-01	0,00E+00	2,74E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Global Warming Potential - land use and land use change (GWP-luluc)	kg CO2 eq.	5,39E-03	1,62E-04	4,12E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,89E-07	1,84E-04	7,72E-06	-1,51E-03
Depletion potential of the stratospheric ozone layer (ODP)	kg CFC-11 eq.	1,29E-06	3,48E-08	2,39E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,09E-10	1,28E-08	1,98E-09	-3,57E-08
Acidifcation potential, Accumulated Exceedance (AP)	mol H+ eq.	2,90E-02	9,52E-09	8,44E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,19E-10	2,99E-09	4,15E-10	-4,78E-07
Europhication potential - freshwater (EP-freshwater)	kg P eq	2,30E-04	3,72E-06	1,75E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,64E-08	5,90E-05	3,43E-05	-5,24E-05
Europhication potential - marine (EP-marine)	kg N eq.	4,92E-03	3,06E-04	3,90E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,31E-06	3,43E-04	2,97E-05	-8,59E-04
Europhication potential - terrestrial (EP-terrestrial)	mol N eq.	5,65E-02	3,39E-03	4,48E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,76E-05	2,81E-03	3,20E-04	-9,07E-03
Photochemical Ozone Creation Potential (POCP)	kg NMVOC eq.	2,94E-02	1,86E-03	2,14E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,34E-05	1,00E-03	1,24E-04	-5,26E-03
Abiotic depletion potential - non-fossil resources (ADPE) [1]	kg Sb eq.	6,42E-05	1,54E-06	3,96E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,90E-10	9,93E-07	4,65E-08	-1,84E-05
Abiotic depletion potential - fossil resources (ADPF) [1]	MJ	1,51E+02	6,75E+00	1,08E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,02E-01	2,52E+00	3,15E-01	-3,01E+01
Water (user) deprivation potential (WDP) [1]	m^3 world eq. deprived	4,48E+00	2,78E-02	3,85E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,83E-04	6,21E-02	-1,01E-01	-1,42E+00
Global Warming Potential (GWP-GHG) [2]	kg CO2 eq.	7,56E+00	4,93E-01	5,86E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,54E-02	5,75E-01	1,99E-02	-1,26E+00

[1] 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.
[2] This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO2 is set to zero.

The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).
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.

Results are declared per 1 m^2 including 4,8% overlap, with 1.55 mm and 1,99 kg/$m^2$of average product.

ADDITIONAL ENVIRONMENTAL IMPACT

SOPREMAPOOL		PRODUCT STAGE	CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				RESOURCE RECOVERY STAGE
IMPACT CATEGORY	UNIT	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate Matter emissions (PM)	Disease incidence	2,98E-07	3,48E-08	2,39E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,09E-10	1,28E-08	1,98E-09	-3,57E-08
Ionizing radiation, human health (IRP) [1]	kBq U235 eq.	2,11E-01	3,08E-03	1,73E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,38E-05	8,74E-03	4,22E-04	-4,74E-02
Eco-toxicity - freshwater (ETP-fw) [2]	CTUe	9,95E+01	1,46E+00	6,34E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,68E-03	2,32E+00	3,10E-01	-6,57E+00
Human toxicity, cancer effect (HTP-c) [2]	CTUh	6,27E-08	3,39E-09	4,19E-09	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,18E-12	2,61E-09	2,11E-10	-7,84E-09
Human toxicity, non-cancer effects (HTP-nc) [2]	CTUh	6,75E-08	4,19E-09	4,76E-09	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,00E-10	5,60E-09	1,12E-09	-1,58E-08
Land use related impacts/ Soil quality (SQP) [2]	dimensionless	3,82E+01	4,01E+00	2,84E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,07E-04	1,85E+00	5,46E-01	-8,72E+00

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 soil, radon, and from some construction materials is also not measured by this indicator.
[2] The results of this environmental impact indicator should be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).
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.

Results are declared per 1 m^2 including 4,8% overlap, with 1.55 mm and 1,99 kg/$m^2$of average product.

USE OF RESOURCES

SOPREMAPOOL		PRODUCT STAGE	CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				RESOURCE RECOVERY STAGE
IMPACT CATEGORY	UNIT	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Use of renewable primary energy as energy carrier (PERE)	MJ	1,16E+01	1,15E-01	8,20E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,20E-01	3,60E-03	1,35E-01	5,57E-03
Use of renewable primary energy resources used as raw materials (PERM)	MJ	2,84E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of renewable primary energy (PERT)	MJ	1,44E+01	1,15E-01	8,20E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,20E-01	3,60E-03	1,35E-01	5,57E-03
Use of non renewable primary energy as energy carrier (PENRE)	MJ	3,10E+01	5,81E-01	3,02E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,48E-03	5,82E-01	3,35E-02	-5,69E+00
Use of non renewable primary energy resources used as raw materials (PENRM)	MJ	3,41E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,00E+00	2,00E+00
Total use of non renewable primary energy resource (PENRT)	MJ	6,51E+01	5,81E-01	3,02E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,48E-03	5,82E-01	1,03E+00	-3,69E+00
Use of secondary material (SM)	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of renewable secondary fuels (RSF)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non renewable secondary fuels (NRSF)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of fresh water (FW)	m3	5,41E-02	9,28E-04	6,24E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,56E-06	1,76E-03	-2,17E-03	-1,15E-02

The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).
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.

Results are declared per 1 m^2 including 4,8% overlap, with 1.55 mm and 1,99 kg/$m^2$of average product.

OUTPUT FLOWS AND WASTE PRODUCTION

SOPREMAPOOL		PRODUCT STAGE	CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				RESOURCE RECOVERY STAGE
IMPACT CATEGORY	UNIT	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste disposed (HWD)	kg	2,57E-03	4,53E-05	1,57E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,39E-06	2,69E-05	2,04E-06	-7,55E-04
Non harzardous waste disposed (NHWD)	kg	8,03E-01	3,20E-01	1,59E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,49E-06	2,69E-01	7,99E-01	-1,06E-01
Radioactive waste disposed (RWD)	kg	1,69E-04	2,15E-06	1,20E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,12E-09	2,21E-06	1,04E-07	-3,90E-05

SOPREMAPOOL		PRODUCT STAGE	CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				RESOURCE RECOVERY STAGE
IMPACT CATEGORY	UNIT	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use (CRU)	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling (MFR)	kg	1,37E-01	0,00E+00	8,58E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,93E-01	0,00E+00	0,00E+00
Materials for energy recovery (MER)	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported electrical energy (EEE)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported thermal energy (EET)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).
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.

Additional LCA results

ENVIRONMENTAL IMPACT

The variation in GWP-GHG among the different products in the SOPREMAPOOL family exceeds 10%.

Therefore, the variation in other impact categories for stages A-C is presented in the table below. This variation is shown with respect to the weighted average product (based on production volumes).

IMPACT CATEGORY	UNIT	MAX VARIABILITY	MIN VARIABILITY
"GWP-total Global warming potential - total"	kg CO2 eq	11,9%	-1,4%
"GWP-fossil Global warming potential - fossil fuels"	kg CO2 eq	13,4%	-1,7%
"GWP-luluc Global warming potential - land use and land use change"	kg CO2 eq	24,5%	-4,6%
"ODP Depletion potential of the stratospheric ozone layer"	kg CFC-11 eq	12,9%	-2,4%
"AP Acidification potential, accumulated exceedance"	mol H+ eq	15,5%	-1,6%
"EP-freshwater Eutrophication potential - freshwater"	kg P eq	16,6%	-3,1%
"EP-marine Eutrophication potential - marine"	kg N eq	15,6%	-1,6%
"EP-terrestrial Eutrophication potential - terrestrial"	mol N eq	15,3%	-1,8%
"POCP Photochemical ozone creation potential"	kg NMVOC eq	14,4%	-1,8%
"ADPE Abiotic depletion potential - non-fossil resources"	kg Sb eq	13,8%	-2,2%
"ADPF Abiotic depletion potential - fossil resources"	MJ	14,5%	-0,5%
"WDP Water (user) deprivation potential"	m3 depriv.	13,1%	-4,3%
"GWP-GHG Global warming potential"	kg CO2 eq	13,4%	-1,7%
"PERT Total use of renewable primary energy"	MJ	24,3%	-18,8%
"PENRT Total use of non renewable primary energy resources"	MJ	20,1%	3,9%
"FW Net use of fresh water"	m3	13,5%	-4,3%
"HWD Hazardous waste disposed"	kg	13,5%	-2,0%
"NHWD Non-hazardous waste disposed"	kg	8,8%	-1,4%
"RWD Radioactive waste disposed"	kg	27,1%	11,6%

Additional Environmental Information

ECOPROFILE CONVERSION THROUGH THE THICKNESS PARAMETER

By means of the following formula, the environmental impact value for the PVC membrane with a different thickness compared to the one obtained for the average ecoprofile can be calculated.

PRODUCT	THICKNESS	FACTOR CONVERSION
Sopremapool family	1,55	1,00
Sopremapool One	1,50	0,97
Sopremapool Premium	1,50	0,97
Sopremapool Design	1,50	0,97
Sopremapool Grip	1,50	0,97
Sopremapool Feeling	1,50	0,97
Sopremapool 3D	1,80	1,16

END OF LIFE SCENARIOS

Environmental indicators EN 15804+A2, 100% end-of-life scenarios, per kg.

		100% RECYCLING		
CORE ENVIRONMENTAL IMPACT INDICATORS	UNIT	C3	C4	D
Global Warming Potential - fossil fuels (GWP-fossil)	kg CO2 eq.	8,07E-01	0,00E+00	-3,90E+00
Global Warming Potential - biogenic (GWP-biogenic)	kg CO2 eq.	2,27E-03	0,00E+00	-1,90E-03
Global Warming Potential - land use and land use change (GWP-luluc)	kg CO2 eq.	4,43E-04	0,00E+00	-3,66E-03
Global Warming Potential - total (GWP-total)	kg CO2 eq.	8,05E-01	0,00E+00	-3,91E+00
Depletion potential of the stratospheric ozone layer (ODP)	kg CFC-11 eq.	9,12E-09	0,00E+00	-1,62E-06
Acidifcation potential, Accumulated Exceedance (AP)	mol H+ eq.	2,04E-03	0,00E+00	-1,43E-02
Europhication potential - freshwater (EP-freshwater)	kg P eq	1,01E-04	0,00E+00	-1,32E-03
Europhication potential - marine (EP-marine)	kg N eq.	8,11E-04	0,00E+00	-2,80E-03
Europhication potential - terrestrial (EP-terrestrial)	mol N eq.	6,49E-03	0,00E+00	-2,75E-02
Photochemical Ozone Creation Potential (POCP)	kg NMVOC eq.	2,61E-03	0,00E+00	-1,69E-02
Abiotic depletion potential - non-fossil resources (ADPE)	kg Sb eq.	3,22E-06	0,00E+00	-5,96E-05
Abiotic depletion potential - fossil resources (ADPF)	MJ	7,87E+00	0,00E+00	-9,92E+01
Water (user) deprivation potential (WDP)	m3 world eq. deprived	1,26E-01	0,00E+00	-4,73E+00
Global Warming Potential (GWP-GHG)	kg CO2 eq.	8,22E-01	0,00E+00	-4,05E+00
Total use of renewable primary energy (PERT)	MJ	8,22E-01	0,00E+00	-6,25E+00
Total use of non renewable primary energy resource (PENRT)	MJ	1,80E+00	0,00E+00	-1,82E+01
Net use of fresh water (FW)	m3	3,60E-03	0,00E+00	-3,56E-02
Hazardous waste disposed (HWD)	kg	8,49E-05	0,00E+00	-2,55E-03
Non harzardous waste disposed (NHWD)	kg	3,48E-01	0,00E+00	-3,04E-01
Radioactive waste disposed (RWD)	kg	7,26E-06	0,00E+00	-1,28E-04

		100% INCINERATION		
CORE ENVIRONMENTAL IMPACT INDICATORS	UNIT	C3	C4	D
Global Warming Potential - fossil fuels (GWP-fossil)	kg CO2 eq.	1,06E+00	1,31E-02	-9,44E-02
Global Warming Potential - biogenic (GWP-biogenic)	kg CO2 eq.	1,46E+00	8,96E-05	3,74E-02
Global Warming Potential - land use and land use change (GWP-luluc)	kg CO2 eq.	1,76E-04	1,06E-05	-5,84E-04
Global Warming Potential - total (GWP-total)	kg CO2 eq.	2,52E+00	1,32E-02	-5,77E-02
Depletion potential of the stratospheric ozone layer (ODP)	kg CFC-11 eq.	1,37E-09	7,28E-11	-1,95E-09
Acidifcation potential, Accumulated Exceedance (AP)	mol H+ eq.	6,53E-04	4,41E-05	-5,29E-04
Europhication potential - freshwater (EP-freshwater)	kg P eq	9,35E-05	6,49E-05	-4,56E-05
Europhication potential - marine (EP-marine)	kg N eq.	3,39E-04	1,42E-05	-1,56E-04
Europhication potential - terrestrial (EP-terrestrial)	mol N eq.	2,93E-03	1,54E-04	-1,28E-03
Photochemical Ozone Creation Potential (POCP)	kg NMVOC eq.	8,03E-04	4,45E-05	-3,65E-04
Abiotic depletion potential - non-fossil resources (ADPE)	kg Sb eq.	2,13E-07	2,34E-08	-2,86E-07
Abiotic depletion potential - fossil resources (ADPF)	MJ	9,24E-01	9,13E-02	-1,24E+00
Water (user) deprivation potential (WDP)	m3 world eq. deprived	8,00E-02	1,37E-03	-3,70E-02
Global Warming Potential (GWP-GHG)	kg CO2 eq.	1,07E+00	1,32E-02	-9,71E-02
Total use of renewable primary energy (PERT)	MJ	2,59E-02	3,53E-03	-9,04E-01
Total use of non renewable primary energy resource (PENRT)	MJ	1,93E-01	3,68E-02	-4,92E-01
Net use of fresh water (FW)	m3	2,24E-03	4,04E-05	-1,23E-03
Hazardous waste disposed (HWD)	kg	8,08E-06	3,79E-07	-6,22E-06
Non harzardous waste disposed (NHWD)	kg	5,37E-01	3,95E-02	-1,15E-02
Radioactive waste disposed (RWD)	kg	3,33E-07	3,41E-08	-1,96E-06

CORE ENVIRONMENTAL IMPACT INDICATORS	UNIT	100% LANDFILL		
		C3	C4	D
Global Warming Potential - fossil fuels (GWP-fossil)	kg CO2 eq.	0,00E+00	3,92E-02	-6,49E-02
Global Warming Potential - biogenic (GWP-biogenic)	kg CO2 eq.	0,00E+00	1,29E-04	3,86E-02
Global Warming Potential - land use and land use change (GWP-luluc)	kg CO2 eq.	0,00E+00	1,12E-05	-5,76E-04
Global Warming Potential - total (GWP-total)	kg CO2 eq.	0,00E+00	3,94E-02	-2,69E-02
Depletion potential of the stratospheric ozone layer (ODP)	kg CFC-11 eq.	0,00E+00	1,01E-09	-1,90E-09
Acidifcation potential, Accumulated Exceedance (AP)	mol H+ eq.	0,00E+00	2,62E-04	-2,83E-04
Europhication potential - freshwater (EP-freshwater)	kg P eq	0,00E+00	3,51E-05	-3,72E-05
Europhication potential - marine (EP-marine)	kg N eq.	0,00E+00	6,49E-05	-1,25E-04
Europhication potential - terrestrial (EP-terrestrial)	mol N eq.	0,00E+00	6,97E-04	-9,52E-04
Photochemical Ozone Creation Potential (POCP)	kg NMVOC eq.	0,00E+00	2,84E-04	-2,67E-04
Abiotic depletion potential - non-fossil resources (ADPE)	kg Sb eq.	0,00E+00	1,01E-07	-2,79E-07
Abiotic depletion potential - fossil resources (ADPF)	MJ	0,00E+00	7,37E-01	-1,00E+00
Water (user) deprivation potential (WDP)	m3 world eq. deprived	0,00E+00	2,61E-01	-3,56E-02
Global Warming Potential (GWP-GHG)	kg CO2 eq.	0,00E+00	4,05E-02	-6,70E-02
Total use of renewable primary energy (PERT)	MJ	0,00E+00	1,43E-02	-8,70E-01
Total use of non renewable primary energy resource (PENRT)	MJ	0,00E+00	5,62E-02	-2,81E-01
Net use of fresh water (FW)	m3	0,00E+00	5,62E-03	-1,19E-03
Hazardous waste disposed (HWD)	kg	0,00E+00	4,94E-06	-5,98E-06
Non harzardous waste disposed (NHWD)	kg	0,00E+00	2,03E+00	-1,12E-02
Radioactive waste disposed (RWD)	kg	0,00E+00	2,40E-07	-1,92E-06

VERSION HISTORY

This is the initial version of the Environmental Product Declaration (EPD) and Life Cycle Assessment (LCA).

Abbreviations

ABBREVIATION	DEFINITION
GENERAL ABBREVIATIONS	
EN	European Norm (Standard)
EPD	Environmental Product Declaration
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
LCA	Life Cycle Assessment
PCR	Product Category Rules
c-PCR	Complementary Product Category Rules
CPC	Central product classification
PEFCR	Product Environmental Footprint Category Rules
PVC	PolyVinyl Chloride
ENVIRONMENTAL IMPACT INDICATORS (EN 15804)	
GHG	Greenhouse gas
GWP	Global Warming Potential (kg CO_2 eq.)
GWP-fossil	Global Warming Potential from fossil sources (kg CO_2 eq.)
GWP-biogenic	Global Warming Potential from biogenic sources (kg CO_2 eq.)
GWP-luluc	Global Warming Potential from land use and land use change (kg CO_2 eq.)
GWP-total	Total Global Warming Potential (kg CO_2 eq.)
GWP-GHG	Global Warming Potential for greenhouse gases (kg CO_2 eq.)
ODP	Ozone Depletion Potential (kg CFC-11 eq.)
AP	Acidification Potential (mol H eq.)
EP	Eutrophication Potential
EP-freshwater	Freshwater eutrophication potential (kg P eq.)
EP-marine	Marine eutrophication potential (kg N eq.)
EP-terrestrial	Terrestrial eutrophication potential (mol N eq.)
POCP	Photochemical Ozone Creation Potential (kg NMVOC eq.)
ADP	Abiotic Depletion Potential
ADPE	Abiotic depletion potential for non-fossil resources (kg Sb eq.)
ADPF	Abiotic depletion potential for fossil resources (MJ)
WDP	Water Deprivation Potential (m^3)
ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS	
PM	Particulate Matter emissions
IRP	Ionizing radiation, human health
ETP-fw	Eco-toxicity, freshwater
HTP-c	Human Toxicity, cancer effect
HTP-nc	Human Toxicity, non-cancer effect
SPQ	Land use related impacts soil quality
RESOURCE USE INDICATORS	
PERE	Use of renewable primary energy excluding renewable primary energy resources used as raw materials (MJ)
PERM	Use of renewable primary energy resources used as raw materials (MJ)
PERT	Total use of renewable primary energy resources (MJ)
PENRE	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials (MJ)
PENRM	Use of non-renewable primary energy resources used as raw materials (MJ)
PENRT	Total use of non-renewable primary energy resources (MJ)
SM	Use of secondary material (kg)

ABBREVIATION	DEFINITION
RSF	Use of renewable secondary fuels (MJ)
NRSF	Use of non-renewable secondary fuels (MJ)
FW	Use of net fresh water (m^3)
WASTE INDICATORS	
HWD	Hazardous Waste (disposed) (kg)
NHWD	Non-Hazardous Waste (disposed) (kg)
RWD	Radioactive Waste (disposed) (kg)
OUTPUT FLOW INDICATORS	
CRU	Components for Reuse (kg)
MFR	Material for Recycling (kg)
MER	Materials for Energy Recovery (kg)
EEE	Exported Energy, Electricity (MJ)
EET	Exported Energy, Thermal (MJ)
LIFECYCLE STAGES / MODULES	
A1	Raw material supply
A2	Transport
A3	Manufacturing
A4	Transport to site
A5	Construction/Installation
B1	Use
B2	Maintenance
B3	Repair
B4	Replacement
B5	Refurbishment
B6	Operational energy use
B7	Operational water use
C1	Deconstruction/Demolition
C2	Transport to waste processing
C3	Waste processing
C4	Disposal
D	Reuse-Recovery-Recycling potential
OTHER RELEVANT TERMS	
EC	European Community Number
MJ	Megajoule
kg	Kilogram
mm	Millimeter
m^2	Square Meter
m^3	Cubic Meter
NMVOC	Non-Methane Volatile Organic Compounds
Sb eq.	Antimony Equivalents
P eq.	Phosphorus Equivalents
N eq.	Nitrogen Equivalents
CFC-11 eq.	Chlorofluorocarbon-11 Equivalents
CO_2 eq.	Carbon Dioxide Equivalents
kg C	Kilograms of Carbon
kg CO_2 eq.	Kilograms of Carbon Dioxide Equivalent

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CONTACTS

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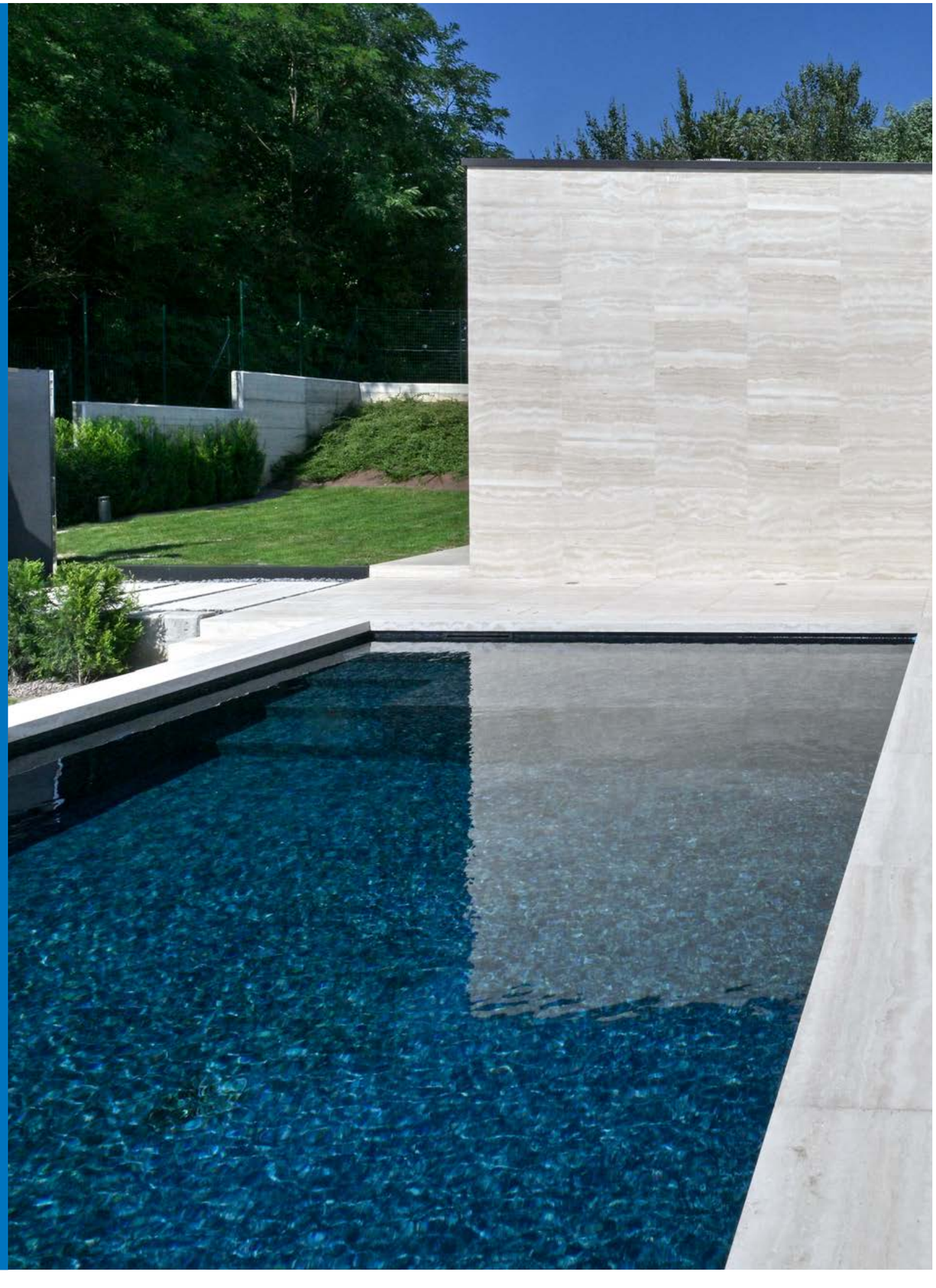

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