Environmental Product Declaration

as per ISO 14025 and EN 15804

Owner of the declaration:	Sika Services AG
Publisher:	Kiwa-Ecobility Experts
Programme operator:	Kiwa-Ecobility Experts
Registration number:	EPD-SikaServicesAG-279-EN
Issue date:	08.09.2022
Valid to:	08.09.2027

Waterproofing membrane – Schönox WSF/Casco Wetstop/SikaCeram Sealing Membrane W

Waterproofing membrane to be applied under ceramic tiles and natural stones

1. General information

Sika Services AG

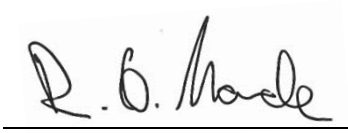
Programme operator
Kiwa-Ecobility Experts
Kiwa GmbH, Ecobility Experts
Wattstraße 11-13
13355 Berlin
Germany

Registration number
EPD-SikaServicesAG-279-EN

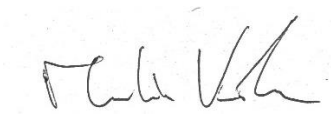
This declaration is based on the Product Category Rules
PCR B - Plastic and rubber sheets for roof, wall, and floor waterproofing, 2021-12-28 (draft)

Issue date
08.09.2022

Valid to
08.09.2027



Raoul Mancke
(Head of programme operations, Kiwa-Ecobility Ex-perts



Martin Koehrer
(Verification body, Kiwa-Ecobility Experts)

Sika Services AG – Schönox WSF/Casco Wetstop/SikaCeram Sealing Membrane W

Owner of the declaration
Sika Services AG
Tüffenwies 16
8048 Zürich
Switzerland

Declared product / declared unit
1 m^2 of waterproofing membrane

Scope
Schönox WSF/Casco Wetstop/SikaCeram Sealing Membrane W is a waterproofing membrane to be applied under ceramic tiles and natural stones. It is produced at the manufacturing plant with the code 001. The EPD refers to the specific product.
EPD type: Cradle to gate with options, and with modules C1-C4 and module D
Kiwa-Ecobility Experts shall not be liable with respect to manufacturer information, life cycle assessment data and evidence.

Verification
The European standard EN 15804+A2:2019 serves as the core PCR.

Independent verification of the declaration and data, according to EN ISO 14025:2010

☐internal ☒external

Max Sonnen – Ecomatters
(Third party verifier)

2. Product

2.1 Product description

Schönox WSF/Casco Wetstop/SikaCeram Sealing Membrane W is a 3-ply waterproofing membrane made of polyethylene (PE) membrane and two outer layers of polypropylene (PP) non-woven.

2.2 Application

The sealing membrane should be applied under ceramic tiles and natural stones for perfect water-proofing. The product is suitable for example for the following typical areas: domestic bathrooms, commercial kitchens, public and domestic shower rooms, and wet areas.

2.3 Technical data

Essential characteristics	Unit	Performance
Resistance to temperature: min./max.	°C	- 30°C / + 90°C
Physical properties		
Total Weight (internal)	gm/m^2	200 (+/- 20)
Length per Roll (internal)	m/%	30 (0,0m / + 1%)
Breaking load longitudinal (DIN EN ISO 527-3)	N/mm	270/50 (≥ 200 / 50)
Breaking load lateral (DIN EN ISO 527-3)	N/mm	170/50 (≥ 100 / 50)
Extension break longitudinal (DIN EN ISO 527-3)	%	60 (≥ 30)
Extension break lateral (DIN EN ISO 527-3)	%	70 (≥ 40)
Resistance to tearing longitudinal (DIN EN 12310-2)	N	100 (≥ 70)
Resistance to tearing lateral (DIN EN 12310-2)	N	65 (≥ 25)
Resistance to water pressure (DIN EN 1928 Version B)	bar	≥ 1.5
UV-Resistance (DIN EN ISO 4892-3)	h	≥ 450
Moisture vapour resistance air equivalent (sd) (DIN EN 1931)	m	≥ 75
Bonding strength (DIN EN 1348)	N/mm^2	≥ 0.5 (≥ 0.2)
Burst Pressure (Internal)	bar	≥ 2.0
Fire Classification (DIN EN 4102 EN 13501-1)	-	B2

2.4 Placing on the market/ Application rules

The product has received the ETA 022 for Watertight covering kits for wet room floors and or walls. For the product use the respective national provisions shall apply. The products are packed and transported as rolls, and mainly distributed at the European market.

2.5 Base materials / Ancillary materials

Schönox WSF/Casco Wetstop/SikaCeram Sealing Membrane W contains PP non-woven, LDPE sealing layer, PE colour batch, printing ink and solvent.

Raw material	Unit	Value
Polypropylene (PP) non-woven	%	36-44
Low-density polyethylene (LDPE) sealing layer	%	54-62
Colour batch polyethylene (PE)	%	1.5-3.5
Printing Ink and solvent	%	0.4-1.5

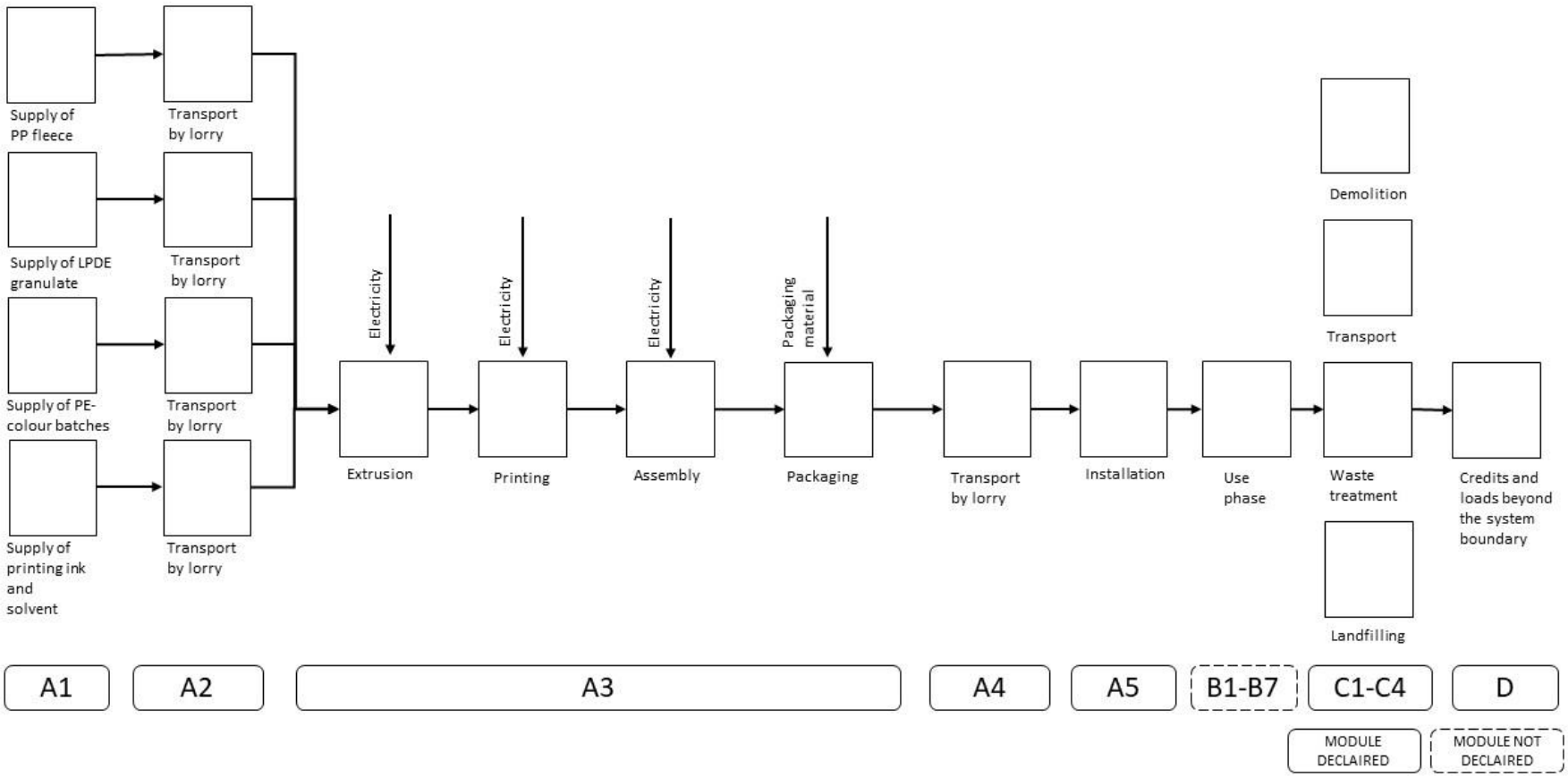
There is no biogenic carbon in the product.

Substances from the “Candidate list of substances of very high concern for authorisation” (SVHC) that the product contains are according to REACH lower then 0.1%.

2.6 Manufacturing

The manufacturing is located at the plant with the code 001. The top and bottom non-woven (PP) are already supplied and delivered as a finished product. The non-wovens are laminated to the up and downside during extrusion process of the LDPE sealing layer. Subsequently a logo is printed on the product, and it is cut in size. Finally, the rolls are stacked on reusable pallets and in packed in foil.
The manufacturing process is shown in the following figure.

Figure 1: Process flow chart of the production of Schönox WSF/Casco Wetstop/SikaCeram Sealing Membrane W



2.7 Packaging

The waterproofing membranes are wrapped on a cardboard winding tube. The rolls are than packed in PE film and stacked on reusable pallets, which are also packed in PE plastic film. All packaging materials are recyclable or reusable (pallets).

2.8 Reference Service Life (RSL)

The Schönox WSF/Casco Wetstop/SikaCeram Sealing Membrane W has been tested according to EAD 030436-00-0503 (ETAG 022). Receipt of an EAD confirms a RSL of 25 years.

2.9 Other Information

For further information on Sika products please visit the official webpage under the following link: https://www.sika.com/.

3. LCA: Calculation rules

3.1 Declared unit

In accordance with the PCR B 1 m^2 membrane is chosen as the declared unit.

Product	Unit	Value
Declared Unit	m^2 membrane	1
Unit weight	g/m^2	203
Conversion factor to 1 kg	-	4.93

3.2 System boundary

The EPD is a complete life cycle with a functional unit. It considers all potential environmental impacts of the product from the cradle to the end of life. Table under LCA:Results provides an overview of the information modules or product life cycle phases considered in the LCA. The manufacturing phase includes the production or extraction and processing of raw materials, the transport to the respective production plant and the production of the waterproofing membrane. All inputs (raw materials, precursors, energy, and auxiliary materials) as well as the by-products and waste are considered for all life cycle phases. Finally, only production-related energy consumption (excluding administration and social rooms) is considered.

The year 2021 represents the time reference for raw materials and electricity consumption. Due to the production location Germany is considered as the geographical reference area. However, environmental effects such as the greenhouse effect can occur with a strong spatial and temporal offset.

The following production steps are considered during the manufacturing phase:

- Extraction and processing of the raw materials (PP non-woven, LDPE granulate, PE colour batch, colour, diluent)
- Transport to the production site
- Processing of the products (extrusion, printing, assembly, finishing)
- Packaging (including packaging material)
- End-of-life (including transport)

Secondary fuels are not included in the production process and are therefore not considered. The waste materials and quantities produced are included in the respective modules.

3.3 Estimates and assumptions

All datasets chosen for the LCA refer to the EU as the geographic reference. Transport distances for all raw materials used (raw materials, operating materials, packaging) could be recorded. A payload factor of 50 percent was used for all truck transports (suppliers, disposal transports and internal transports), which corresponds to a full delivery and empty return trip. A data set for a non-specific truck was used for phase A2. For the end-of-life waste scenario 100% landfilling has been assumed. The end-of-life waste scenario per input material has been chosen and for each row material 100% landfilling has been modeled. No CO_2 certificates were considered.

3.4 Cut-off criteria

All flows that are relevant for the production of the waterproofing membrane were recorded. All process specific data could be determined and modelled using generic data (EcoInvent 3.6).

3.5 Period under review

All process-specific data was collected for the operating year 2021. The quantities of raw materials as well as energy consumption have been recorded and averaged over the entire operating year 2021.

3.6 Data quality

For all processes primary data was collected and provided by the manufacturing plant with the code 001. The primary data refers to year 2021. For the data, which is not influenced by the manufacturer, generic data was used. The secondary data was taken from the database EcoInvent (version 3.6, 2019). The database is maintained on a regular basis and thus meets the requirements of EN 15804 (background data not older than 10 years). The power sources were chosen from data for the Germany in 2021, in accordance with the geographical and time representativeness. The data quality is very good, because all process specific data could be documented and modelled by using the generic data.

RETHiNK EPD web application from the company NIBE was used to model the life cycle for the production and disposal of the declared product systems. To ensure that the results are comparable, consistent background data from the international database EcoInvent was used in the LCA (e.g. data records on energy, transport, auxiliary materials, and supplies). Almost all consistent data sets contained in the EcoInvent database are documented and can be viewed online.

3.7 Allocation

Allocations were avoided as far as possible. There are no coproducts or byproduct in the manufacturing of the waterproofing membrabne. Based on energy consumption measurements, the energy demand was allocated to the individual products. Recycleble production waste is collected and sold to the third party.

3.8 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. For the evaluation of the comparability, the following aspects have to be considered in particular: PCR used , functional or declared unit, geographical reference, 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 EPDs programs may differ. A 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).

4. LCA: Scenarios and additional technical information

The distance between the production and the construction site (Module A4) was calculated based on the sold products in 2021. Accordingly, it was calculated the product was partially distributed by road (536 km) and partially by ship. As means of transportation truck (unspecified) and transoceanic freight ship were chosen.

The installation of the waterproofing membrane is usually conducted manually. A reject or unused portion of 7% of the waterproofing membrane is assumed during the installation process (Module A5).

For the Module C1 (demolition) it has been assumed that it can be considered irrelevant, because no significant additional energy is needed for the demolition of waterproofing membrane within an applied system. E.g., if the waterproofing membrane is applied under tiles, the demolition energy for the removal of tiles will not be considerably higher if the waterproofing membrane is applied underneath.

The end-of-life waste scenario per input material has been chosen and for each row material 100% landfilling has been modeled under the consideration of suitable loads and benefits.

Note: The transport distances of the waste are based on the standard waste scenarios of the NMD Determination Method (SBK 2019): incineration 150 km/ recycling 50 km / landfill 100 km; vehicle: truck, unspecific. According the EN 15804, loads are credited in Modules A3 or C3 to C4 and benefits are credited in module D.

For all road transports, the environmental profile of a non-specific truck transport was used (conservative assumption): The vehicle operates with diesel, and it provides a fleet average that includes different lorry classes as well as EURO classes. This environmental profile contains data for transport, which is calculated for an average load factor, including empty return trips (EcoInvent 3.6).

5. LCA: Results

The following tables show the results of the impact assessment indicators, resource use, waste and other output streams. The results presented here refer to the declared specific product.

Disclaimer on ADP-e, ADP-f, WDP, ETP-fw, HTP-c, HTP-nc, SQP: The results of these environmental impact indicators must be used with caution, as the uncertainties in these results are high or as there is limited experience with the indicator.

Disclaimer on IR: This impact category mainly addresses the potential effect of low dose ionizing radiation on human health in the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents and occupational exposures, nor does it consider radioactive waste disposal in underground facilities. Potential ionizing radiation from soil, radon, and some building materials is also not measured by this indicator.

Description of the system boundary

Product stage			Construction process stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw material supply	Transport	Manu-facturing	Transport from manu-facturer to place of use	Construction-installation process	Use	Main-tenance	Repair	Replacement	Refur-bishmen	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**
X	X	X	X	X	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X

X=Module declared | MND=Module not declared

Results of the LCA – Environmental impact: 1 m² Schönox WSF/Casco Wetstop/SikaCeram Sealing Membrane W

Parameter	Unit	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Core environmental impact indicators (EN 15804+A2)											
ADP-mm	kg Sb eq.	5,04E-06	2,04E-07	1,81E-06	4,01E-07	5,56E-07	0,00E+00	6,67E-08	0,00E+00	2,21E-08	-5,47E-08
ADP-f	MJ	1,52E+01	1,22E-01	2,78E+00	2,39E-01	1,34E+00	0,00E+00	3,97E-02	0,00E+00	4,89E-02	-1,99E-01
AP	mol H^+ eq.	1,70E-03	4,68E-05	7,83E-04	9,54E-05	1,94E-04	0,00E+00	1,53E-05	0,00E+00	1,80E-05	-3,52E-05
EP-fw	kg PO_4 eq.	1,11E-05	8,13E-08	2,95E-05	1,60E-07	2,91E-06	0,00E+00	2,65E-08	0,00E+00	3,69E-08	-2,11E-07
EP-m	kg N eq.	2,84E-04	1,65E-05	1,62E-04	3,31E-05	3,83E-05	0,00E+00	5,38E-06	0,00E+00	1,05E-05	-8,41E-06
EP-t	mol N eq.	3,15E-03	1,82E-04	2,11E-03	3,65E-04	4,43E-04	0,00E+00	5,93E-05	0,00E+00	6,63E-05	-1,16E-04
GWP-b	kg CO_2 eq.	7,97E-04	3,72E-06	1,29E-02	7,21E-06	7,34E-03	0,00E+00	1,21E-06	0,00E+00	2,22E-05	1,85E-02
GWP-f	kg CO_2 eq.	4,58E-01	8,06E-03	2,00E-01	1,59E-02	5,36E-02	0,00E+00	2,63E-03	0,00E+00	2,72E-02	-6,88E-03
GWP-luluc	kg CO_2 eq.	2,38E-04	2,95E-06	7,35E-04	5,89E-06	6,96E-05	0,00E+00	9,64E-07	0,00E+00	1,01E-06	-1,69E-05
GWP-total	kg CO_2 eq.	4,59E-01	8,07E-03	2,14E-01	1,59E-02	6,10E-02	0,00E+00	2,63E-03	0,00E+00	2,72E-02	1,16E-02
ODP	kg CFC 11 eq.	1,23E-08	1,78E-09	1,01E-08	3,51E-09	2,13E-09	0,00E+00	5,81E-10	0,00E+00	6,39E-10	-4,99E-10
POCP	kg NMVOC eq.	1,74E-03	5,19E-05	4,34E-04	1,04E-04	1,77E-04	0,00E+00	1,69E-05	0,00E+00	2,50E-05	-3,56E-05
WDP	m^3 world eq.	4,41E-01	4,35E-04	4,34E-02	8,53E-04	3,54E-02	0,00E+00	1,42E-04	0,00E+00	2,10E-03	-4,68E-03
Additional environmental impact indicators (EN 15804+A2)											
ETP-fw	CTUe	3,10E+00	1,08E-01	3,16E+00	2,13E-01	5,26E-01	0,00E+00	3,54E-02	0,00E+00	5,10E-02	-1,77E-01
HTP-c	CTUh	1,19E-10	3,52E-12	8,34E-11	6,97E-12	1,86E-11	0,00E+00	1,15E-12	0,00E+00	1,38E-12	-3,13E-12
HTP-nc	CTUh	3,36E-09	1,19E-10	2,31E-09	2,33E-10	4,60E-10	0,00E+00	3,87E-11	0,00E+00	3,34E-11	-1,00E-10
IRP	kBq U235 eq.	1,48E-02	5,09E-04	9,05E-03	1,00E-03	1,85E-03	0,00E+00	1,66E-04	0,00E+00	1,91E-04	-1,95E-04
PM	disease incidence	1,32E-08	7,25E-10	5,57E-09	1,42E-09	1,60E-09	0,00E+00	2,37E-10	0,00E+00	3,40E-10	-3,68E-10
SQP		8,14E-01	1,05E-01	8,77E+00	2,06E-01	6,99E-01	0,00E+00	3,44E-02	0,00E+00	1,16E-01	-1,79E+00

ADP-mm=Depletion of abiotic resources - minerals and metals| **ADP-f**=Depletion of abiotic resources - fossil fuels | **AP**=Acidification potential | **EP-fw**=Eutrophication, freshwater | **EP-m**=Eutrophication, marine | **EP-t**=Eutrophication, terrestrial | **GWP-b**=Global warming potential - biogenic | **GWP-f**=Global warming potential - fossil | **GWP-luluc**=Global warming potential - land use and land use change |**GWP-total**=Global warming potential |**ODP**=Ozone depletion |**POCP**=Photochemical ozone formation | **WDP**=Water use | **ETP-fw**=Ecotox-icity, freshwater | **HTP-c**=Human toxicity, cancer effects | **HTP-nc**=Human toxicity, non-cancer effects| **IRP**=Ionising radiation, human health | **PM**= disease in-cidence | **SQP**=Land use related impacts (Potential Soil quality index)

Results of the LCA – Resource use and environmental information: 1 m² Schönox WSF/Casco Wetstop/SikaCeram Sealing Membrane W											
Parameter	**Unit**	**A1**	**A2**	**A3**	**A4**	**A5**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	3,85E-01	1,52E-03	1,82E+00	2,99E-03	1,56E-01	0,00E+00	4,97E-04	0,00E+00	3,30E-03	-1,09E-01
PERM	MJ	0,00E+00	0,00E+00	3,61E-01	0,00E+00	2,52E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,22E-01
PERT	MJ	3,85E-01	1,52E-03	2,19E+00	2,99E-03	1,82E-01	0,00E+00	4,97E-04	0,00E+00	8,61E-04	-3,31E-01
PENRE	MJ	8,93E+00	1,29E-01	2,90E+00	2,54E-01	8,72E-01	0,00E+00	4,21E-02	0,00E+00	7,21E-02	-1,26E-01
PENRM	MJ	7,41E+00	0,00E+00	5,12E-02	0,00E+00	5,43E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-8,76E-02
PENRT	MJ	1,63E+01	1,29E-01	2,98E+00	2,54E-01	1,43E+00	0,00E+00	4,21E-02	0,00E+00	5,20E-02	-2,14E-01
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
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
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
FW	m³	6,96E-03	1,48E-05	2,21E-03	2,91E-05	6,74E-04	0,00E+00	4,83E-06	0,00E+00	5,11E-05	-6,88E-05
HWD	Kg	2,16E-06	3,08E-07	4,07E-06	6,04E-07	5,26E-07	0,00E+00	1,01E-07	0,00E+00	7,44E-08	-9,05E-08
NHWD	Kg	2,06E-02	7,71E-03	1,88E-02	1,51E-02	1,81E-02	0,00E+00	2,52E-03	0,00E+00	1,95E-01	-5,77E-04
RWD	Kg	1,26E-05	7,98E-07	1,11E-05	1,57E-06	1,90E-06	0,00E+00	2,61E-07	0,00E+00	2,91E-07	-2,02E-07
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
MFR	Kg	0,00E+00	0,00E+00	7,87E-03	0,00E+00	1,89E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
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
EE	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	7,01E-02

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 | **HWD**=hazardous waste disposed | **NHWD**=non-hazardous waste disposed | **RWD**=radioactive waste disposed | **CRU**=Components for re-use | **MFR**=Materials for recycling | **MER**=Materials for energy recovery | **EE**=Exported energy

6. LCA: Interpretation

As shown in the figure below, A1 (raw material supply) and A3 (manufacturing) dominate in most environmental core indicators. The highest impact (app. 50%) on the GWP is attributed to the LDPE granulate, followed by the PP non-woven (app. 27%). Among energy inputs the highest contribution to the GWP is caused by the cooling process (11%). Transports A2 and C2 have only a minor impact within all core indicators, whereas the transport to the customers (A4) has a slightly bigger impact compared to other two transports. The installation phase (A5) contributes with around 8-10% to each environmental category. However, this phase is strongly dependent on the 7% construction waste assumption. Since the product is completely landfilled after reaching the end-of-life credits beyond the system boundaries (module D) are mainly originating from the packaging material.

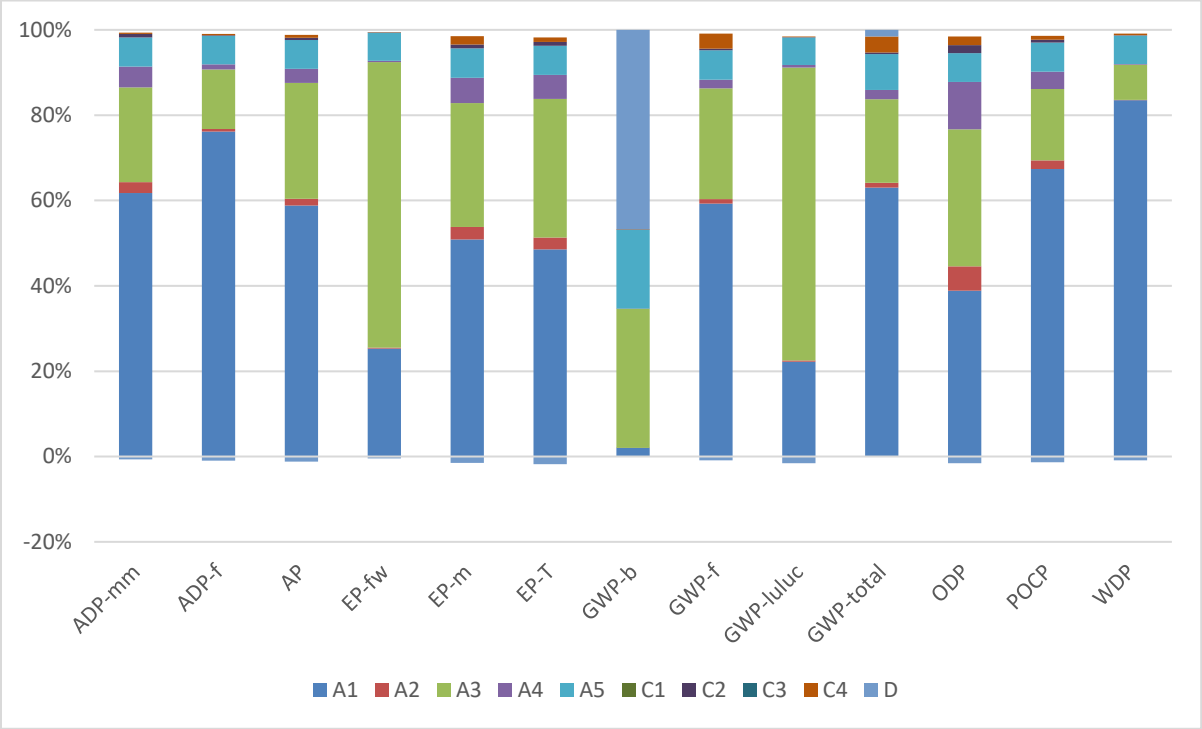


Figure 2: Schönox WSF/Casco Wetstop/SikaCeram Sealing Membrane W – Impact of the individual modules on the environmental core indicators

The data quality can be classified as good overall. All relevant process-specific data could be collected in the operational data collection. Consistent data sets from the EcoInvent database (version 3.6) were available for almost all inputs and outputs. The background data meet the requirements of EN 15804, and the production data were recorded for the 2021 operating year. The quantities of raw materials and supplies used as well as energy consumption were recorded for the entire operating year.

7. References

BNB Service Life of Building Components, https://www.nachhaltigesbauen.de/austausch/nutzungsdauern-von-bauteilen/, last assessed 2022-07-01

CML-IA April 2013 – Charakterisierungsfaktoren entwickelt durch Institut of Environmental Sciences (CML): Universität Leiden, Niederlande - http://www.cml.leiden.edu/software/data-cmlia.html

Donndorf, R., Kahle H., Müller, G., Philipp H-J., Taschow, H-J., Wolf, O. (1973): Werkstoffeinsatz und Korrosionsschutz in der chemischen Industrie. VEB Deutscher Verlag für Grundstoffindustrie Leipzig.

European Commission Joint Research Centre Institute for Prospective Technological Studies (JCR 2014): End-of-waste criteria for waste plastic for conversion, Seville, 2014, doi:10.2791/13033

Klöpffer, W., Grahl B.: Ökobilanz (LCA) – Ein Leitfaden für die Ausbildung und Beruf, Wily-VCH Ver-lag, Weinheim, 2007

Rosauer, V. (2010): Abschätzung der herstellungsbedingten Qualität und Lebensdauer von Asphaltdeckschichten mit Hilfe der Risikoanalyse (Estimation of the production-related quality and service life of asphalt wearing courses with the aid of risk analysis). Technischen Universität Darmstadt, 2010

Protocol EPD-online - 25011.16.03.015 - Protocol EPD online - NMD, version 1.2, November 2016, NIBE

Standards and laws

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

ISO 14044:2006, Environmental management - Life cycle assessment - Requirements and guide-lines

ISO 14025:2010: Environmental labels and declarations — Type III environmental declarations — Principles and procedures EN 13249

EN 15804:2012+A1:2019: Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

EN 15804:2012+A2:2019 Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products

PCR A: General Program Category Rules for Construction Products from the EPD program Kiwa-Ecobility Experts, R.0_2021-07-16

PCR B: Product Category Rules (PCR) from the Kiwa-Ecobility Experts EPD program: “Product Category Rules for plastic and rubber sheets for roof and wall waterproofing”, edition 2021-12-28 (draft)

	Publisher Kiwa-Ecobility Experts Kiwa GmbH, Ecobility Experts Wattstraße 11-13 13355 Berlin Germany	E-mail Web	DE.Ecobility.Experts@kiwa.com https://www.kiwa.com/de/de/themes/ecobility-experts/ecobility-experts/
	Programme operator Kiwa-Ecobility Experts Kiwa GmbH, Ecobility Experts Wattstraße 11-13 13355 Berlin Germany	E-mail Web	DE.Ecobility.Experts@kiwa.com https://www.kiwa.com/de/de/themes/ecobility-experts/ecobility-experts/
	LCA Practitioner Kiwa GmbH, Ecobility Experts Wattstraße 11-13 13355 Berlin Germany	Tel. Fax. E-mail Web	+49 (0)30 467761-43 +49 (0)30 467761-10 DE.Nachhaltigkeit@kiwa.com https://www.kiwa.com/
	Owner of the declaration Sika Services AG Tüffenwies 16 8048 Zürich Switzerland	Tel. Fax. E-mail Web	+41 58 436 40 40 +41 58 436 43 43 buessard.jerome@fr.sika.com www.sika.com

Kiwa-Ecobility Experts - established member of