

ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A2

Owner of the Declaration	Sika Services AG
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-SIK-20240380-CBA1-EN
Issue date	04.03.2025
Valid to	03.03.2030

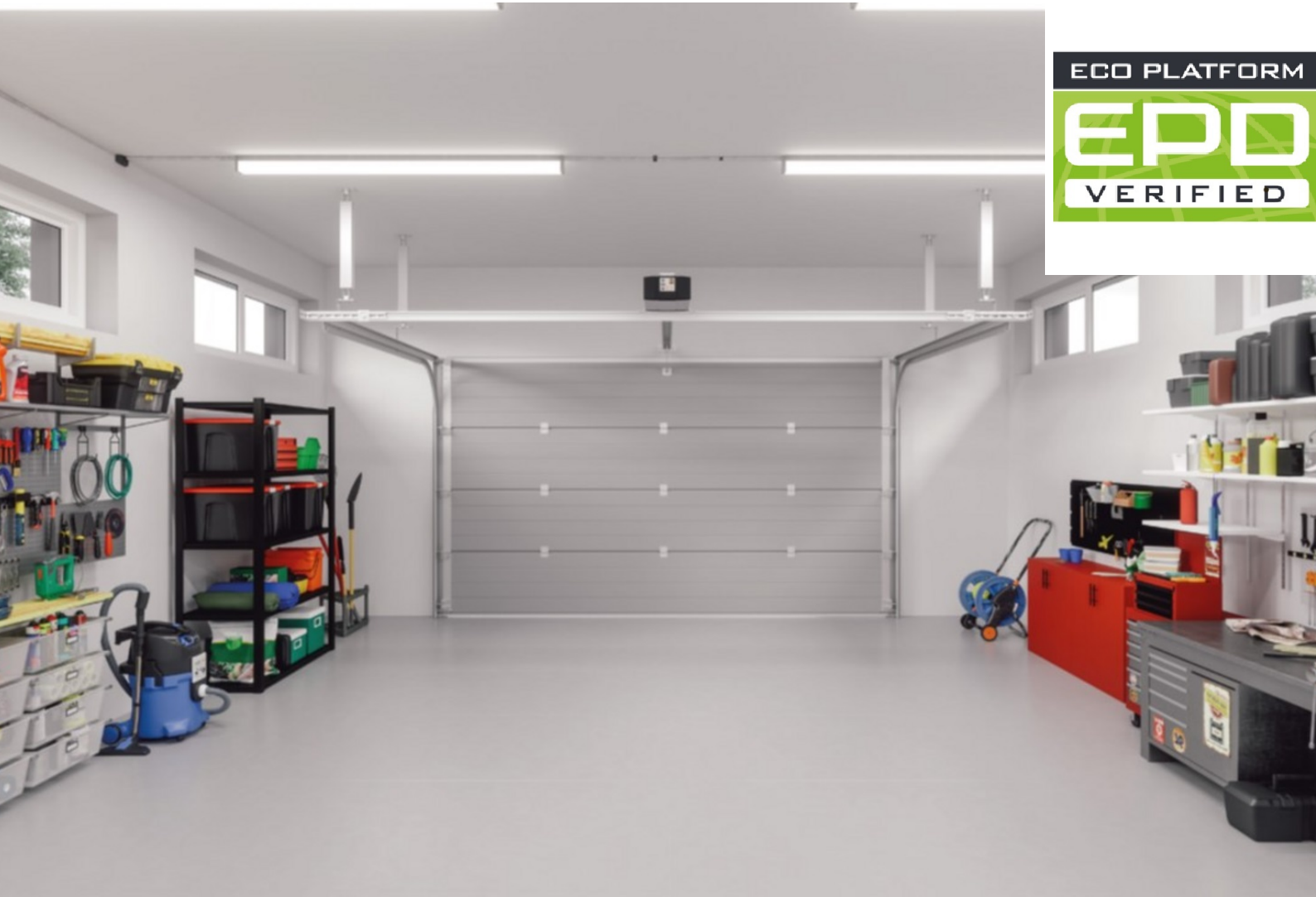
Sikafloor®-2510 W
Sika Deutschland

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ECO PLATFORM

EPD
VERIFIED



General Information

Sika Deutschland

Programme holder

IBU – Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

Declaration number

EPD-SIK-20240380-CBA1-EN

This declaration is based on the product category rules:

Reaction resin products, 01.08.2021
(PCR checked and approved by the SVR)

Issue date

04.03.2025

Valid to

03.03.2030



Dipl.-Ing. Hans Peters
(Chairman of Institut Bauen und Umwelt e.V.)



Florian Pronold
(Managing Director Institut Bauen und Umwelt e.V.)

Sikafloor®-2510 W

Owner of the declaration

Sika Services AG
Tüffenwies 16-22
8064 Zurich
Switzerland

Declared product / declared unit

1 kg Sikafloor®-2510 W with packaging.

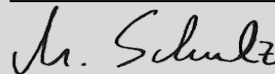
Scope:

The EPD applies to Sikafloor®-2510 W, a 2-part, water-based, coloured epoxy resin floor coating manufactured at Sika's plant in Stuttgart, Germany. The EPD covers the product stages, transportation to building site, EoL stages and benefits and loads outside of the system boundary. The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard will be simplified as *EN 15804*.

Verification

The standard EN 15804 serves as the core PCR	
Independent verification of the declaration and data according to ISO 14025:2011	
<input type="checkbox"/>	internally
<input checked="" type="checkbox"/>	externally



Matthias Schulz,
(Independent verifier)

Product

Product description/Product definition

Sikafloor®-2510 W is a 2-part, water-based, coloured epoxy resin floor coating with low emissions and low maintenance requirements. The product is used as a primer or scratch coat, smooth or textured roller coat, self-smoothing wearing layer, seal coat and is mainly used on the following substrates as concrete and cementitious substrates. It is available in 2 AB kits 5 and 20 kg. Density of the mixed product AB is 1.34 g/ml. For the placing on the market of the product in the European Union/European Free Trade Association (EU/EFTA) (with the exception of Switzerland) *Regulation (EU) No. 305/2011 (CPR)* applies. The product needs a declaration of performance taking into consideration *EN13813 - Screed material and floor screeds - Screed material - Properties and requirements and EN1504-2 - Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 2: Surface protection systems for concrete – CE marking.* For the application and use the respective national provisions apply.

Application

Sikafloor®-2510 W can be applied inside on horizontal and vertical mineral substrates. It is a two-component, low emission, water dispersed, colored epoxy glossy coating, compatible with substrates like concrete, cement screeds, broadcast systems and epoxy mortars. It can be used as a primer, scratch coat, roller coat, sealer on broadcasted surfaces and self-levelling coating, which means you can use just one product to finish the whole flooring system.

Technical Data

Sikafloor®-2510 W meets the requirement of *EN13813* and *EN1504-2* regulations and also declarations of performance are done according to this. Additional technical data are not relevant for this product.

Constructional data

Name	Value	Unit
Density	1340	kg/m ³
Wear resistance acc. to EN 13892-4	AR0,5	
Abrasion resistance EN ISO 5470-1	≤3000	
Bond strength acc. to EN 1542	B2,0	N/mm ²
Impact resistance acc. To ISO6272	IR4	class
Permeability to CO ₂ acc. to EN 1062-6	≥50	m
Water vapour permeability EN ISO 7783	II	Class
Capillary absorption and permeability to water acc. to EN 1062-3	< 0.1	kg□m ⁻² □h ^{-0.5}

LCA: Calculation rules

Declared Unit

The declared unit is 1 kg Sikafloor®-2510 W at the ratio the two components must be mixed before processing.

The mixing ratio of Part A : Part B is 68 : 32 by weight.

Declared unit and mass reference

Performance data of the product in accordance with the declaration of performance with respect to its essential characteristics according to *hEN1504-2:2004-10* Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 2: Surface protection systems for concrete, title and *hEN13813:2002-10*, Screed material and floor screeds - Screed materials - Properties and requirements.

Base materials/Ancillary materials

Formulation Components

The formulation of Sikafloor®-2510 W can be coded as shown in the table below.

Name	Value	Unit
Amine hardener	10-20	%
Fillers	30-35	%
Epoxy-binder	15-25	%
Water	25-35	%
Additive	0-2	%

This product/article/at least one partial article contains substances listed in the *candidate list* (date: 08.03.2024) exceeding 0.1 percentage by mass: no

This product/article/at least one partial article contains other cancerogenic, mutagenic, reprotoxic (CMR) substances in categories 1A or 1B which are not on the ECHA candidate list, exceeding 0.1 percentage by mass: no

Biocide products were added to this construction product or it has been treated with biocide products (this then concerns a treated product as defined by the *REGULATION (EU) No 528/2012*: no

Reference service life

Cured reactive epoxy products comply with a variety of, often specific, functions in the construction or refurbishment of building structures. They decisively improve the usability of building structures and significantly extend their original service lives. The anticipated reference service life depends on the specific installation situation and the exposure associated with the product. It can be influenced by weathering as well as mechanical or chemical loads.

Name	Value	Unit
Declared unit	1	kg
Productiveness (mean value)	0.3	kg/m ²
Gross density (wet)	1340	kg/m ³

Other declared units are allowed if the conversion is shown transparently.

System boundary

This EPD is based on the system boundary cradle to gate with options, modules C1–C4, and module D (A1–A3 + C + D and additional modules: A4 and A5).

The LCA includes the following modules:

A1-A3: Extraction, processing, and transport of raw materials used for the production of components A+B and the packaging materials used to package the final product. Energy and auxiliaries used in the production of the product. Waste processing of waste generated in manufacturing.

A4: Transport of the product to the building site.

A5: Waste treatment of product packaging and product residue, VOC emissions from installation. Additional production, transportation and waste treatment related to product residue in packaging, assumed to be 1%.

C1: Construction demolition of building where the flooring is applied.

C2: Transport of the construction demolition material to a waste-processing facility.

C3: Waste processing – no waste processing is considered in this study.

C4: Disposal of the construction demolition material in landfill.
D: Benefits for reuse, recovery, and/or recycling - not applicable in this LCA study.

Geographic Representativeness

Land or region, in which the declared product system is manufactured, used or handled at the end of the product's lifespan: Germany

Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to *EN 15804* and the building context, respectively the product-specific characteristics of performance, are taken into account. The main database used is *Sphera Managed LCA content 2024.1*, complemented with *Ecoinvent 3.10*.

LCA: Scenarios and additional technical information

Characteristic product properties of biogenic carbon

There is no biogenic carbon contained in the product or product packaging.

Information on describing the biogenic carbon content at factory gate

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Name	Value	Unit
Biogenic carbon content in product	-	kg C
Biogenic carbon content in accompanying packaging	-	kg C

Note: 1 kg of biogenic carbon is equivalent to 44/12 kg of CO₂.

The following technical information serves as a basis for the

declared modules or can be used for the development of specific scenarios in the context of a building assessment.

Transport to the building site (A4)

Name	Value	Unit
Litres of fuel	0.0031	l/100km
Transport distance	480	km
Capacity utilisation (including empty runs)	61	%

End of life (C1-C4)

A conservative end of life scenario including 100% landfilling of the construction product was applied.

Name	Value	Unit
Collected as mixed construction waste	1	kg
Landfilling	1	kg

LCA: Results

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE OR INDICATOR NOT DECLARED; MNR = MODULE NOT RELEVANT)

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
X	X	X	X	X	MND	MND	MNR	MNR	MNR	MND	MND	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 kg Sikafloor®-2510 W

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq	2.75E+00	5.28E-02	2.95E-02	6.49E-04	4.77E-03	0	1.51E-02	0
GWP-fossil	kg CO ₂ eq	2.7E+00	5.2E-02	2.9E-02	6.38E-04	4.69E-03	0	1.5E-02	0
GWP-biogenic	kg CO ₂ eq	3.28E-02	0	2.91E-04	0	0	0	0	0
GWP-luluc	kg CO ₂ eq	2.05E-02	8.6E-04	2.38E-04	1.04E-05	7.76E-05	0	8.98E-05	0
ODP	kg CFC11 eq	7.13E-08	5.16E-15	7.13E-10	6.25E-17	4.65E-16	0	4.08E-14	0
AP	mol H ⁺ eq	7.57E-03	2.6E-04	8.56E-05	3.09E-06	2.34E-05	0	1.06E-04	0
EP-freshwater	kg P eq	1.1E-04	2.18E-07	1.11E-06	2.65E-09	1.97E-08	0	3.41E-08	0
EP-marine	kg N eq	2.35E-03	1.25E-04	2.83E-05	1.45E-06	1.13E-05	0	2.74E-05	0
EP-terrestrial	mol N eq	2E-02	1.4E-03	2.54E-04	1.61E-05	1.26E-04	0	3.01E-04	0
POCP	kg NMVOC eq	5.74E-03	2.51E-04	4.36E-02	4.13E-06	2.27E-05	0	8.37E-05	0
ADPE	kg Sb eq	5.43E-06	4.36E-09	5.45E-08	5.28E-11	3.93E-10	0	9.72E-10	0
ADPF	MJ	5.07E+01	6.68E-01	5.32E-01	8.1E-03	6.02E-02	0	1.97E-01	0
WDP	m ³ world eq deprived	2.5E+01	7.62E-04	2.5E-01	9.24E-06	6.87E-05	0	1.71E-03	0

GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources; WDP = Water (user) deprivation potential

RESULTS OF THE LCA - INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1 kg Sikafloor®-2510 W

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	7.89E+00	5.65E-02	8.1E-02	6.84E-04	5.09E-03	0	3.46E-02	0
PERM	MJ	0	0	0	0	0	0	0	0
PERT	MJ	7.89E+00	5.65E-02	8.1E-02	6.84E-04	5.09E-03	0	3.46E-02	0
PENRE	MJ	3.56E+01	6.68E-01	3.81E-01	8.1E-03	6.02E-02	0	1.97E-01	0
PENRM	MJ	1.52E+01	0	1.52E-01	0	0	0	0	0
PENRT	MJ	5.07E+01	6.68E-01	5.33E-01	8.1E-03	6.02E-02	0	1.97E-01	0
SM	kg	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0
FW	m ³	5.86E-01	6.34E-05	5.87E-03	7.69E-07	5.72E-06	0	5.22E-05	0

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

RESULTS OF THE LCA - WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2:

1 kg Sikafloor®-2510 W

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
HWD	kg	6.28E-04	2.16E-11	6.28E-06	2.62E-13	1.95E-12	0	4.95E-11	0
NHWD	kg	3.26E-01	1.04E-04	3.26E-03	1.26E-06	9.37E-06	0	1E+00	0
RWD	kg	7.45E-04	8.63E-07	7.48E-06	1.05E-08	7.79E-08	0	2.04E-06	0
CRU	kg	0	0	0	0	0	0	0	0
MFR	kg	0	0	1.55E-01	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0
EEE	MJ	0	0	0	0	0	0	0	0
EET	MJ	0	0	0	0	0	0	0	0

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; EEE = Exported electrical energy; EET = Exported thermal energy

**RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional:
1 kg Sikafloor®-2510 W**

Parameter	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PM	Disease incidence	9.58E-08	1.39E-09	1.01E-09	3.66E-11	1.25E-10	0	1.33E-09	0
IR	kBq U235 eq	1.45E-01	1.21E-04	1.45E-03	1.46E-06	1.09E-05	0	2.33E-04	0
ETP-fw	CTUe	3.98E+01	4.92E-01	4.16E-01	5.96E-03	4.43E-02	0	1.14E-01	0
HTP-c	CTUh	6.34E-09	9.87E-12	6.37E-11	1.19E-13	8.9E-13	0	2.69E-12	0
HTP-nc	CTUh	5.58E-07	4.39E-10	5.6E-09	5.33E-12	3.96E-11	0	1.04E-10	0
SQP	SQP	9.13E+00	3.31E-01	1.04E-01	4.01E-03	2.98E-02	0	5.62E-02	0

PM = Potential incidence of disease due to PM emissions; IR = Potential Human exposure efficiency relative to U235; ETP-fw = Potential comparative Toxic Unit for ecosystems; HTP-c = Potential comparative Toxic Unit for humans (cancerogenic); HTP-nc = Potential comparative Toxic Unit for humans (not cancerogenic); SQP = Potential soil quality index

Disclaimer 1 – for the indicator “Potential Human exposure efficiency relative to U235”. 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 or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators “abiotic depletion potential for non-fossil resources”, “abiotic depletion potential for fossil resources”, “water (user) deprivation potential, deprivation-weighted water consumption”, “potential comparative toxic unit for ecosystems”, “potential comparative toxic unit for humans – cancerogenic”, “Potential comparative toxic unit for humans - not cancerogenic”, “potential soil quality index”. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

References

Standards

EN 15804

EN 15804:2012+A1 2013, Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products.

EN 15804

EN 15804:2012+A2:2019+AC:2021, Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products.

ISO 14025

EN ISO 14025:2011, Environmental labels and declarations — Type III environmental declarations — Principles and procedures.

IBU 2021

Institut Bauen und Umwelt e.V.: General Instructions for the EPD programme of Institut Bauen und Umwelt e.V., Version 2.0, Berlin: Institut Bauen und Umwelt e.V., 2021
www.ibu-epd.com

ECHA/REACH Candidate List

European Chemicals Agency (ECHA): Candidate List of substances of very high concern for Authorisation. 08.03.2024.

Ecoinvent 3.10

Ecoinvent Version 3.10: Database for Life Cycle Assessment. Swiss Centre for Life Cycle Inventories (ecoinvent Centre), 2024.

EN 1062-3

EN 1062-3:2008-04, Paints and varnishes - Coating materials and coating systems for exterior masonry and concrete - Part 3: Determination of liquid water permeability

EN 1062-6

EN 1062-6:2002-10, Paints and varnishes - Coating materials and coating systems for exterior masonry and concrete - Part 6: Determination of carbon dioxide permeability

EN 1504-2

EN 1504-2:2004-10, Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 2: Surface protection systems for concrete

EN 1542

Products and systems for the protection and repair of concrete structures - Test methods - Measurement of bond strength by pull-off

EN ISO 7783

EN ISO 7783-1/-2:2019-02, Paints and varnishes - Determination of water-vapour transmission properties - Cup method

EN 13813

EN 13813:2002-10, Screed material and floor screeds - Screed materials - Properties and requirements

EN 13892

EN 13892:2003-02, Methods of test for screed materials - Part 8: Determination of bond strength

ISO 5470-1

ISO 5470-1:2016 Rubber- or plastics-coated fabrics - Determination of abrasion resistance - Part 1: Taber abrader

ISO 6272-1:2011

ISO 6272-1:2011 Paints and varnishes - Rapid-deformation (impact resistance) tests - Part 1: Falling-weight test, large-area indenter

Managed LCA content

CUP 2024.1. Life cycle assessment database, by Sphera Solutions GmbH, Leinfelden-Echterdingen

PCR Part A

Product Category Rules for Building-Related Products and Services, Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Project report, Version 1.3, Institut Bauen und Umwelt e.V., 31.08.2022

PCR Part B

Product Category Rules for Construction Products, Part B:
Reaction resin products, v.8, 19.10.2023

Regulation (EU) No. 305/2011

Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products.

REGULATION (EU) No 528/2012

Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products.

Sphera LCA for Experts

Version 10.9. Life cycle assessment software, by Sphera Solutions GmbH, Leinfelden Echterdingen

**Publisher**

Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

+49 (0)30 3087748- 0
info@ibu-epd.com
www.ibu-epd.com

**Programme holder**

Institut Bauen und Umwelt e.V.
Hegelplatz 1
10117 Berlin
Germany

+49 (0)30 3087748- 0
info@ibu-epd.com
www.ibu-epd.com

**Author of the Life Cycle Assessment**

Sika Technology AG
Tüffenwies 16
8048 Zürich
Switzerland

+41 (0)58 436 40 40
product.sustainability@ch.sika.com
www.sika.com/sustainability

**Owner of the Declaration**

Sika Services AG
Tüffenwies 16-22
8064 Zurich
Switzerland

+41(0)58 436 40 40
avdyli.elma@ch.sika.com
https://www.sika.com/