Environmental Product Declaration

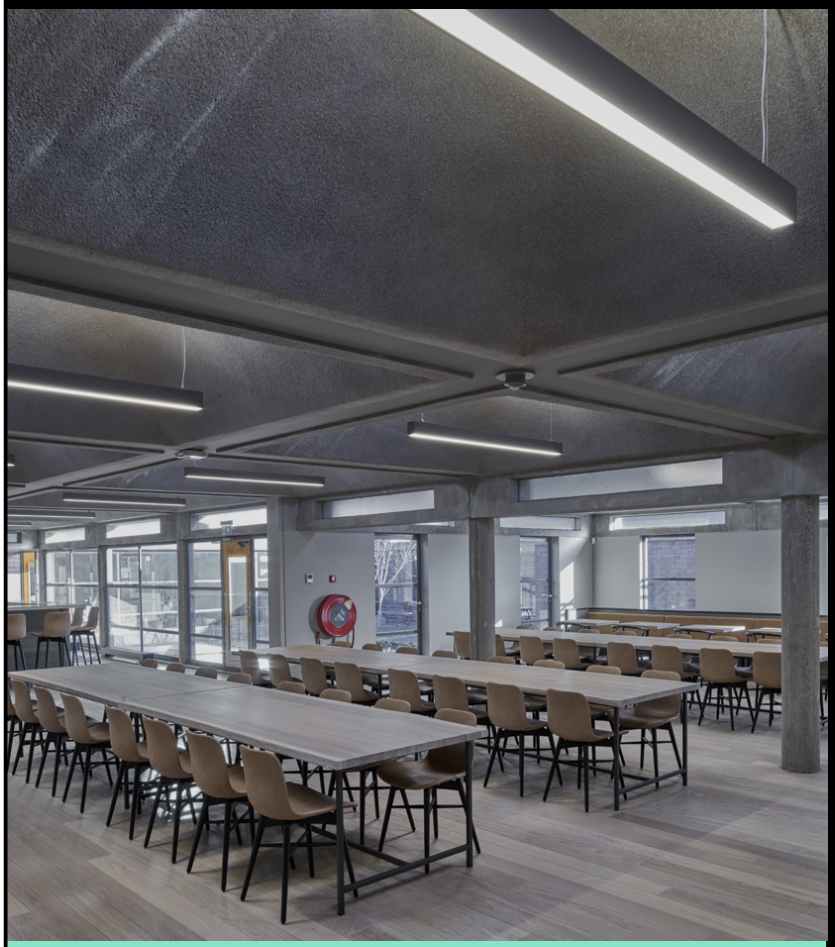
according to ISO 14025 and EN 15804

MRPI
milieu relevante product informatie

This declaration is for:
AcoSorb AcoSpray

Provided by
AcoSorb International B.V.
www.acosorb.nl

acosorb
seamless acoustical spray- and plasterwork



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www.mrpi.nl

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1.1.00058.2019
EPD registration
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ECO PLATFORM EPD
EN 15804 VERIFIED

PROGRAM OPERATOR
Stichting MRPI®
Kingsfordweg 151
1043GR
Amsterdam

COMPANY INFORMATION
AcoSorb International B.V.
Spinnerij 33
1185 ZS
Amstelveen
0031 (0)20 717 3000
Caspar ter Bille - www.acosorb.nl

PRODUCT
AcoSorb AcoSpray

MRPI® REGISTRATION
1.1.00058.2019

EPD REGISTRATION
00000944

DATE OF ISSUE
17-6-2019

EXPIRY DATE
17-06-2024

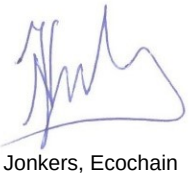
DECLARED UNIT/FUNCTIONAL UNIT
1 m² AcoSpray with a thickness of 1 cm

SCOPE OF DECLARATION
This MRPI®-EPD certificate is verified by **Niels Jonkers, EcoChain Technologies.**
The LCA study has been done by **Martijn Weening, SGS Search.**
The certificate is based on an LCA-dossier according to ISO14025 and NEN-EN15804+A1. It is verified according to the 'EPD-MRPI verification protocol May 2017'. EPD of construction products may not be comparable if they do not comply with NEN-EN15804+A1. Declaration of SVHC that are listed on the 'Candidate List of Substances of Very High Concern for authorisation' when content exceeds the limits for registration with ECHA.

VISUAL PRODUCT


DESCRIPTION OF PRODUCT
Acosorb AcoSpray is a circular directly sprayed, seamless acoustical finish. The acoustical properties are impressive, sprayed in one phase up to 35mm also a super-fast application.

MORE INFORMATION
https://www.acosorb.nl/akoestisch-spuitwerk

DEMONSTRATION OF VERIFICATION
CEN standard EN15804 serves as the core PCR[a]
Independent verification of the declaration and data, according to EN ISO 14025:2010: internal: external: X
(where appropriate[b]) Third party verifier:  Niels Jonkers, Ecochain
[a] Product Category Rules [b] Optional for B-to-B communication, mandatory for B-to-C communication (see EN ISO 14025:2010, 9.4).

DETAILED PRODUCT DESCRIPTION

AcoSpray is made of two main components i.e. cellulose fibers (which includes fire retardant and preservatives) and adhesive. These components are mixed on site and applied by spraying.

All materials are transported by truck.

AcoSpray has a Reference Service Life (RSL) of 50 years.

COMPONENT (*)	[kg]
Cellulose fibers	confidential
Adhesive	confidential

(*) > 1% of total mass

SCOPE AND TYPE

The EPD type is Cradle-to-Grave. Data for this EPD is supplied by AcoSorb, EcoInvent 3.4 data is used as reference and calculation are performed in SimaPro 8.5.2.. All inventory data is available in the LCA project report.

AcoSorb is produced in The Netherlands. The scope of the study includes application in The Netherlands. End of life scenario is 95% incineration and 5% landfill in The Netherlands.

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport gate to 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	X	X	X	X	X	X	X	X	X	X	X	X

X = Module assessed

MNA = Module Not Assessed

REPRESENTATIVENESS (IF AVERAGE)

Not applicable as this is an environmental product declaration for a specific product from a specific manufacturer.

ENVIRONMENTAL IMPACT per functional unit or declared unit

	UNIT	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADPE	kg Sb-eq.	5.30 E -6	3.10 E -7	0	5.61 E -6	7.01 E -8	6.49 E -8	0	0	0	0	0	0	0	0	6.27 E -8	7.82 E -8	1.13 E -9	1.56 E -6
ADPF	MJ	1.35 E -2	8.04 E -4	0	1.43 E -2	1.82 E -4	5.16 E -4	0	0	0	0	0	0	0	0	1.63 E -4	2.10 E -4	8.82 E -6	-5.18 E -4
GWP	kg CO2-eq.	1.05 E +0	1.09 E -1	0	1.16 E +0	2.46 E -2	1.62 E -1	0	0	0	0	0	0	0	0	2.20 E -2	1.07 E +0	4.22 E -2	4.42 E -2
ODP	kg CFC11-eq.	1.01 E -7	2.01 E -8	0	1.21 E -7	4.54 E -9	4.26 E -9	0	0	0	0	0	0	0	0	4.06 E -9	8.41 E -9	1.77 E -10	-1.68 E -9
POCP	kg ethene-eq.	7.88 E -4	6.43 E -5	0	8.52 E -4	1.45 E -5	1.08 E -5	0	0	0	0	0	0	0	0	1.30 E -5	2.97 E -5	9.48 E -6	1.02 E -4
AP	kg SO2-eq.	4.46 E -3	4.72 E -4	0	4.93 E -3	1.07 E -4	1.40 E -4	0	0	0	0	0	0	0	0	9.56 E -5	3.39 E -4	7.97 E -6	2.30 E -3
EP	kg (PO4)3--eq.	1.65 E -3	9.45 E -5	0	1.74 E -3	2.14 E -5	3.48 E -5	0	0	0	0	0	0	0	0	1.91 E -5	1.04 E -4	3.30 E -5	5.16 E -4
Toxicity indicators (only for Dutch market)																			
HTP	kg DCB-eq.	2.73 E -1	4.36 E -2	0	3.16 E -1	9.86 E -3	1.60 E -2	0	0	0	0	0	0	0	0	8.82 E -3	1.08 E -1	8.28 E -4	6.13 E -2
FAETP	kg DCB-eq.	8.56 E -3	1.28 E -3	0	9.83 E -3	2.89 E -4	5.73 E -4	0	0	0	0	0	0	0	0	2.59 E -4	4.33 E -3	1.13 E -4	3.03 E -3
MAETP	kg DCB-eq.	2.70 E +1	4.61 E +0	0	3.16 E +1	1.04 E +0	3.19 E +0	0	0	0	0	0	0	0	0	9.34 E -1	2.57 E +1	3.73 E -1	1.31 E +1
TETP	kg DCB-eq.	1.18 E -3	1.54 E -4	0	1.34 E -3	3.49 E -5	3.31 E -4	0	0	0	0	0	0	0	0	3.13 E -5	1.69 E -4	3.78 E -6	5.84 E -4
ECI	Euro	1.17 E -1	1.29 E -2	0	1.29 E -1	2.91 E -3	1.09 E -2	0	0	0	0	0	0	0	0	2.61 E -3	6.81 E -2	2.57 E -3	2.30 E -2

INA = Indicator Not Assessed
ADPE = Abiotic depletion potential for non-fossil resources;
ADPF = Abiotic depletion potential for fossil resources;
GWP = Global warming potential;
ODP = Depletion potential of the stratospheric ozone layer;
POCP = Formation potential of tropospheric ozone photochemical oxidants;
AP = Acidification potential of land and water;
EP = Eutrophication potential.
HTP = Human toxicity potential;
FAETP = Fresh water aquatic ecotoxicity potential;
MAETP = Marine aquatic ecotoxicity potential;
TETP = Terrestrial ecotoxicity potential.
ECI = Environmental Cost Indicator

RESOURCE USE per functional unit or declared unit

	UNIT	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	6.90 E -1	2.31 E -2	0	7.13 E -1	5.22 E -3	9.30 E -2	0	0	0	0	0	0	0	0	4.67 E -3	2.18 E -2	1.26 E -3	1.97 E +1
PERM	MJ	1.03 E +1	0	0	1.03 E +1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERT	MJ	1.10 E +1	2.31 E -2	0	1.10 E +1	5.22 E -3	9.30 E -2	0	0	0	0	0	0	0	0	4.67 E -3	2.18 E -2	1.26 E -3	1.97 E +1
PENRE	MJ	2.00 E +1	1.79 E +0	0	2.18 E +1	4.04 E -1	1.00 E +0	0	0	0	0	0	0	0	0	3.62 E -1	4.24 E -1	2.05 E -2	-1.13 E +0
PENRM	MJ	9.52 E +0	0	0	9.52 E +0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PENRT	MJ	2.96 E +1	1.79 E +0	0	3.14 E +1	4.04 E -1	1.00 E +0	0	0	0	0	0	0	0	0	3.62 E -1	4.24 E -1	2.05 E -2	-1.13 E +0
SM	kg	7.28 E -1	0	0	7.28 E -1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FW	m3	1.72 E -2	3.21 E -4	0	1.75 E -2	7.25 E -5	7.28 E -4	0	0	0	0	0	0	0	0	6.49 E -5	6.92 E -4	1.96 E -5	1.92 E -2

INA = Indicator Not Assessed
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 resources excluding non renewable primary energy resources used as materials;
PENRM = Use of non-renewable primary energy used as raw materials; PENRT = Total use of non-renewable primary energy resources;
SM = Use of secondary materials; RSF = Use of renewable secondary fuels;
NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water.

OUTPUT FLOWS AND WASTE CATEGORIES per functional unit or declared unit

	UNIT	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	1.10 E -5	1.04 E -6	0	1.21 E -5	2.35 E -7	2.52 E -6	0	0	0	0	0	0	0	0	2.10 E -7	1.44 E -6	2.15 E -8	9.73 E -5
NHWD	kg	1.33 E -1	1.03 E -1	0	2.36 E -1	2.33 E -2	7.40 E -3	0	0	0	0	0	0	0	0	2.08 E -2	3.46 E -2	5.69 E -2	6.12 E -2
RWD	kg	4.72 E -5	1.13 E -5	0	5.85 E -5	2.57 E -6	2.42 E -6	0	0	0	0	0	0	0	0	2.30 E -6	1.21 E -6	1.19 E -7	1.73 E -5
CRU	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	1.02 E -1	0	0	0	0	0	0	0	0	0	1.08 E +0	0	0
EEE	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.45 E +0
ETE	MJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.81 E +0

INA = Indicator Not Assessed
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; ETE = Exported thermal energy.

CALCULATION RULES

Cut off rules

There are no indications that relevant data is not included in the scope of the study. The energy used for removal (C1) has not been included due to insignificance. Energy related to the production of the glue has not been included due to insignificance.

Data quality

Specific data was collected from AcoSorb through a questionnaire, including information about logistics data (e.g. transport), production information and end-of-life scenario's.

Data collection period

The data collection period for specific data was the year 2016.

Allocations

The energy related to installation (A5) has been allocated by determining the time of installation per functional unit and multiplying by the energy consumption of the machine. Energy related to the production of the cellulose fibers has been determined by the supplier.

SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

Processes in A1-A3 include the production and transport of all materials. There are no processes included in A3, components are mixed onsite and processes for this step are included in A5. No maintenance is required for AcoSorb products and therefore no impact in phase B is calculated. In the end of life phase 95% of the material will be incinerated with energy recovery and 5% will end up in landfill.

DECLARATION OF SVHC

None of the substances contained in the product are listed in the “Candidate List of Substances of Very High Concern for authorisation”, or they do not exceed the threshold with the European Chemicals Agency.

REFERENCES

SBK Bepalingsmethode versie 3.0 (1 januari 2018) and MRPI®/EPD verificatie protocol 2017 in addition to NEN-EN 15804, ISO 14040, ISO 14044 en ISO14025.

REMARKS

None