ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

PROMASEAL®-A Spray (Fire stopping acrylic sprayable)
Etex Building Performance GmbH

EPD HUB, HUB-1554
Publishing date 28 June 2024, last updated on 28 June 2024, valid until 28 June 2029.

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Etex Building Performance GmbH
Address	St.-Peter-Straße 25, Bau 39, 4021 Linz, Austria
Contact details	info@etexgroup.com
Website	www.promat.com

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.1, 5 Dec 2023
Sector	Construction product
Category of EPD	Third party verified EPD
Parent EPD number	
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Parisa Rafiaani, PRTC N.V., ETEX Group
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ¨ Internal verification þ External verification
EPD verifier	Magaly González Vázquez, as an authorized verifier acting for EPD Hub Limited

The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

PRODUCT

Product name	PROMASEAL®-A Spray (Fire stopping acrylic sprayable)
Additional labels	-
Product reference	-
Place of production	Etex Building Performance GmbH, Austria
Period for data	01/01/2022-01/12/2022
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	-

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg of fire stopping coating
Declared unit mass	1 kg
GWP-fossil, A1-A3 (kgCO2e)	0.84
GWP-total, A1-A3 (kgCO2e)	0.83
Secondary material, inputs (%)	0.13
Secondary material, outputs (%)	0
Total energy use, A1-A3 (kWh)	4.08
Net fresh water use, A1-A3 (m3)	0.01

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Promat is part of the global Etex Group of Companies, which operates across Europe, Africa, Near & Middle East and South America. Promat is the expert and worldwide reference in passive fire protection and high-performance insulation for the construction sector and a large number of industrial markets.

PRODUCT DESCRIPTION

PROMASEAL®-A spray is an acrylic based, single component, permanently elastic fire stopping sealant. It forms a flexible seal once dry, is very suitable for accommodating movement and is also resistant to moisture. Joints even with movement can be sealed quickly and securely thanks to its outstanding application qualities. PROMASEAL®-A spray is a fire stopping sealant for joints in walls and floors. It is designed for use within joints where movement is possible, to seal against the spread of smoke and fire. Constructions have been tested, classified and approved according to the following standards / guidelines: EN 1366-3 and EN 1366-4; EN 13501-1 and EN 13501-2 and ETAG 026-3 (used as EAD).

Further information can be found at www.promat.com.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	-	
Minerals	50	Europe, World
Fossil materials	50	Europe
Bio-based materials	-	

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	-
Biogenic carbon content in packaging, kg C	0.0043

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of fire stopping coating
Mass per declared unit	1 kg
Functional unit	-
Reference service life	-

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

PRODUCT LIFE-CYCLE

SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
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		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstr./demol.	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

Transport for raw materials considers the distance from the extraction or manufacturing location of the raw material to the production plant and the modelling of the relevant transportation type (e.g., bulk sea fret, road lorry, train, ...) for each raw material. Regarding the energy used, 100% of the electricity (as the only source of the energy consumption) used in the manufacturing plant is sourced from renewable sources (a mix of renewable energy sources). Water used only for cleaning requirement. No water is used during production (the required water for the production comes from the raw materials added to the mixture). A representative production loss at the product level was tracked by the plant and considered in the LCA calculations. All the production waste goes to landfill via lorry.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

PROMASEAL®-A Spray is delivered by road from the plant to the final customer. For the transportation from the production plant to the final customer, a scenario was assumed with a transportation distance of 100 km and using a lorry as transportation method.
Installation (A5) phase is not included in the scope of the EPD. Only packaging waste is included in module A5. Since the product becomes a part of another product, different applications and installation scenarios can be possible. Therefore, the installation scenario itself is not included.

PRODUCT USE AND MAINTENANCE (B1-B7)

The use phase is not included in the scope of the EPD, as a wide range of different applications and installation scenarios can be applied. The PROMASEAL®-A Spray becomes a part of another product. Therefore, Reference Service Life depends on the application. Under normal conditions of use, the product is supposed to remain its characteristics as long as the application lasts.
Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

At the end-of-life, 100% landfill scenario is considered as the average European scenario for PROMASEAL®-A Spray. The consumption of energy and natural resources is negligible for disassembling of the end-of-life product since the PROMASEAL®-A Spray becomes a part of another product. Therefore, the impacts of demolition are assumed to be zero (C1). The transportation distance to the disposal area is estimated as 30 km via

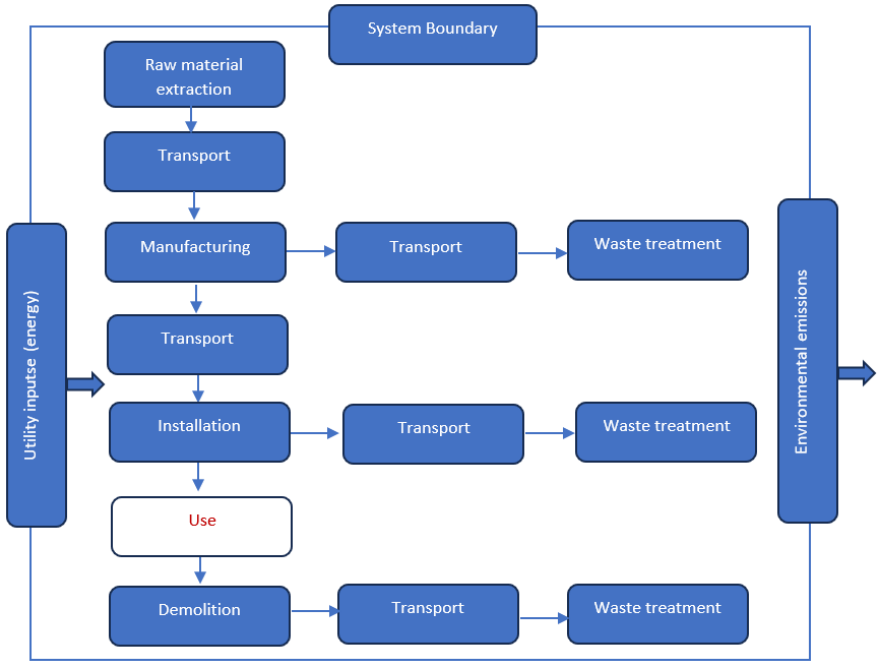
lorry. No benefits and loads regarding the product are allocated to module D, as the product is 100 % landfilled. However, some minor benefits and loads regarding the packaging of the product are allocated to module D.

MANUFACTURING PROCESS

DESCRIPTION

All raw materials are dosed and mixed according to specified process condition. The ready-mixed masses are packed in the respective containers and finalized based on the production order. The finished product is then packed and ready for transport. The quality is checked during production and after packaging.

See below the included life cycle stages within the system boundary of this study. The use phase (Module B) was not included in the system boundary. The installation phase (Module A5) only includes the packaging waste of the final product.



LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	No allocation
Packaging materials	No allocation
Ancillary materials	No allocation
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	%

There is no average result considered in this study since this EPD refers to one specific product produced in one production plant.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.8, Plastics Europe, Federal LCA Commons and One Click LCA databases as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	8,30E-01	1,77E-02	2,24E-02	MND	MND	MND	MND	MND	MND	MND	MNR	5,10E-03	0,00E+00	1,18E-01	-1,51E-02
GWP – fossil	kg CO_2e	8,39E-01	1,77E-02	3,79E-03	MND	MND	MND	MND	MND	MND	MND	MNR	5,10E-03	0,00E+00	1,19E-01	-4,81E-03
GWP – biogenic	kg CO_2e	-1,74E-02	0,00E+00	1,86E-02	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	0,00E+00	-1,26E-03	-1,03E-02
GWP – LULUC	kg CO_2e	8,04E-03	7,40E-06	1,72E-06	MND	MND	MND	MND	MND	MND	MND	MNR	2,14E-06	0,00E+00	1,08E-05	1,63E-06
Ozone depletion pot.	kg CFC_{-11}e	6,77E-08	3,81E-09	1,48E-10	MND	MND	MND	MND	MND	MND	MND	MNR	1,10E-09	0,00E+00	3,20E-09	-1,84E-10
Acidification potential	mol H^+e	3,28E-03	5,20E-05	6,27E-06	MND	MND	MND	MND	MND	MND	MND	MNR	1,50E-05	0,00E+00	8,92E-05	-1,95E-05
EP-freshwater[2)]	kg Pe	2,24E-05	1,50E-07	4,30E-08	MND	MND	MND	MND	MND	MND	MND	MNR	4,33E-08	0,00E+00	1,69E-07	-1,83E-07
EP-marine	kg Ne	6,57E-04	1,04E-05	1,90E-06	MND	MND	MND	MND	MND	MND	MND	MNR	3,00E-06	0,00E+00	3,04E-05	-4,07E-06
EP-terrestrial	mol Ne	6,92E-03	1,15E-04	1,79E-05	MND	MND	MND	MND	MND	MND	MND	MNR	3,33E-05	0,00E+00	3,34E-04	-4,68E-05
POCP ("smog")[3)]	kg NMVOCe	2,83E-03	4,33E-05	5,75E-06	MND	MND	MND	MND	MND	MND	MND	MNR	1,25E-05	0,00E+00	1,22E-04	-2,12E-05
ADP-minerals & metals[4)]	kg Sbe	6,05E-06	6,25E-08	2,03E-08	MND	MND	MND	MND	MND	MND	MND	MNR	1,81E-08	0,00E+00	3,58E-08	-8,34E-08
ADP-fossil resources	MJ	2,39E+01	2,56E-01	1,55E-02	MND	MND	MND	MND	MND	MND	MND	MNR	7,40E-02	0,00E+00	2,44E-01	-4,87E-02
Water use[5)]	m^3e depr.	5,10E-01	1,13E-03	3,55E-04	MND	MND	MND	MND	MND	MND	MND	MNR	3,27E-04	0,00E+00	1,45E-03	-1,11E-03

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	3,41E-08	1,41E-09	1,40E-10	MND	MND	MND	MND	MND	MND	MND	MNR	4,06E-10	0,00E+00	1,78E-09	-3,32E-10
Ionizing radiation[6)]	kBq U235e	5,61E-02	1,20E-03	1,61E-04	MND	MND	MND	MND	MND	MND	MND	MNR	3,46E-04	0,00E+00	1,19E-03	-2,25E-04
Ecotoxicity (freshwater)	CTUe	1,11E+01	2,35E-01	2,82E-02	MND	MND	MND	MND	MND	MND	MND	MNR	6,78E-02	0,00E+00	2,04E-01	-1,69E-01
Human toxicity, cancer	CTUh	8,65E-10	6,61E-12	2,94E-12	MND	MND	MND	MND	MND	MND	MND	MNR	1,91E-12	0,00E+00	1,42E-11	-2,67E-11
Human tox. non-cancer	CTUh	1,58E-08	2,13E-10	3,19E-11	MND	MND	MND	MND	MND	MND	MND	MNR	6,15E-11	0,00E+00	1,61E-10	-1,22E-10
SQP[7)]	-	3,79E+00	1,79E-01	2,24E-02	MND	MND	MND	MND	MND	MND	MND	MNR	5,18E-02	0,00E+00	5,93E-01	-1,49E-01

6) EN 15804+A2 disclaimer for Ionizing radiation, human health. This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator; 7) SQP = Land use related impacts/soil quality.

USE OF NATURAL RESOURCES

Impact category	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy[8)]	MJ	7,37E-01	3,04E-03	1,30E-03	MND	MND	MND	MND	MND	MND	MND	MNR	8,79E-04	0,00E+00	4,45E-03	7,90E-03
Renew. PER as material	MJ	1,64E-01	0,00E+00	-1,64E-01	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	0,00E+00	0,00E+00	-1,18E-01
Total use of renew. PER	MJ	9,01E-01	3,04E-03	-1,62E-01	MND	MND	MND	MND	MND	MND	MND	MNR	8,79E-04	0,00E+00	4,45E-03	-1,10E-01
Non-re. PER as energy	MJ	1,39E+01	2,56E-01	1,55E-02	MND	MND	MND	MND	MND	MND	MND	MNR	7,40E-02	0,00E+00	2,44E-01	-4,87E-02
Non-re. PER as material	MJ	9,72E+00	0,00E+00	-7,61E-01	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	0,00E+00	-8,96E+00	4,36E-01
Total use of non-re. PER	MJ	2,37E+01	2,56E-01	-7,46E-01	MND	MND	MND	MND	MND	MND	MND	MNR	7,40E-02	0,00E+00	-8,72E+00	3,88E-01
Secondary materials	kg	2,30E-03	8,55E-05	4,17E-05	MND	MND	MND	MND	MND	MND	MND	MNR	2,47E-05	0,00E+00	8,77E-05	-1,99E-03
Renew. secondary fuels	MJ	5,90E-03	1,11E-06	4,08E-07	MND	MND	MND	MND	MND	MND	MND	MNR	3,20E-07	0,00E+00	3,37E-06	-4,55E-07
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m^3	1,29E-02	3,05E-05	1,19E-05	MND	MND	MND	MND	MND	MND	MND	MNR	8,81E-06	0,00E+00	2,63E-04	-2,36E-05

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	1,06E-01	3,70E-04	1,43E-04	MND	MND	MND	MND	MND	MND	MND	MNR	1,07E-04	0,00E+00	0,00E+00	-2,22E-03
Non-hazardous waste	kg	6,43E-01	5,91E-03	1,39E-02	MND	MND	MND	MND	MND	MND	MND	MNR	1,71E-03	0,00E+00	1,00E+00	-8,60E-03
Radioactive waste	kg	4,91E-05	1,70E-06	7,31E-08	MND	MND	MND	MND	MND	MND	MND	MNR	4,92E-07	0,00E+00	0,00E+00	-9,44E-08

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	1,62E-04	0,00E+00	2,69E-02	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for energy rec	kg	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

Impact category	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO_2e	8,04E-01	1,75E-02	3,49E-03	MND	MND	MND	MND	MND	MND	MND	MNR	5,05E-03	0,00E+00	9,73E-02	-4,62E-03
Ozone depletion Pot.	kg CFC_{-11}e	5,76E-08	3,02E-09	1,20E-10	MND	MND	MND	MND	MND	MND	MND	MNR	8,72E-10	0,00E+00	2,54E-09	-1,98E-10
Acidification	kg SO_2e	2,63E-03	4,26E-05	4,95E-06	MND	MND	MND	MND	MND	MND	MND	MNR	1,23E-05	0,00E+00	6,76E-05	-1,57E-05
Eutrophication	kg PO_4^3e	1,30E-03	9,40E-06	6,10E-05	MND	MND	MND	MND	MND	MND	MND	MNR	2,72E-06	0,00E+00	4,00E-03	-8,87E-06
POCP (“smog”)	kg C_2H_4e	2,41E-04	2,12E-06	4,86E-07	MND	MND	MND	MND	MND	MND	MND	MNR	6,11E-07	0,00E+00	1,78E-05	-2,26E-06
ADP-elements	kg Sbe	5,85E-06	6,11E-08	2,02E-08	MND	MND	MND	MND	MND	MND	MND	MNR	1,77E-08	0,00E+00	3,46E-08	-8,29E-08
ADP-fossil	MJ	2,35E+01	2,56E-01	1,55E-02	MND	MND	MND	MND	MND	MND	MND	MNR	7,40E-02	0,00E+00	2,44E-01	-4,86E-02

ENVIRONMENTAL IMPACTS – FRENCH NATIONAL COMPLEMENTS

Impact category	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADP-elements	kg Sbe	5,81E-06	6,11E-08	2,02E-08	MND	MND	MND	MND	MND	MND	MND	MNR	1,77E-08	0,00E+00	3,46E-08	-8,29E-08
Hazardous waste disposed	kg	1,06E-01	3,70E-04	1,43E-04	MND	MND	MND	MND	MND	MND	MND	MNR	1,07E-04	0,00E+00	0,00E+00	-2,22E-03
Non-haz. waste disposed	kg	6,43E-01	5,91E-03	1,39E-02	MND	MND	MND	MND	MND	MND	MND	MNR	1,71E-03	0,00E+00	1,00E+00	-8,60E-03
Air pollution	m^3	1,21E+02	2,61E+00	3,03E-01	MND	MND	MND	MND	MND	MND	MND	MNR	7,54E-01	0,00E+00	2,58E+00	-2,28E+00
Water pollution	m^3	4,43E+00	2,04E-02	7,65E-02	MND	MND	MND	MND	MND	MND	MND	MNR	5,91E-03	0,00E+00	3,54E+01	-1,64E-02

ENVIRONMENTAL IMPACTS – GWP-GHG - THE INTERNATIONAL EPD SYSTEM

Impact category	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG[9)]	kg CO_2e	8,39E-01	1,77E-02	3,79E-03	MND	MND	MND	MND	MND	MND	MND	MNR	5,10E-03	0,00E+00	1,19E-01	-4,81E-03

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product as defined by IPCC AR 5 (IPCC 2013). In addition, the characterisation factors for the flows - CH4 fossil, CH4 biogenic and Dinitrogen monoxide - were updated in line with the guidance of IES PCR 1.2.5 Annex 1. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterization factor for biogenic CO2 is set to zero.

ENVIRONMENTAL IMPACTS – BEPALINGSMETODE, NETHERLANDS

Impact category	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Shadow price	€	1,14E-01	2,11E-03	1,20E-03	MND	MND	MND	MND	MND	MND	MND	MNR	6,10E-04	0,00E+00	4,26E-02	-1,02E-03
Terrestrial ecotoxicity	DCB eq	2,00E-03	4,88E-05	1,95E-05	MND	MND	MND	MND	MND	MND	MND	MNR	1,41E-05	0,00E+00	4,09E-05	-1,36E-05
Seawater ecotoxicity	DCB eq	1,53E+02	2,67E+00	5,52E-01	MND	MND	MND	MND	MND	MND	MND	MNR	7,71E-01	0,00E+00	5,30E+00	-1,79E+00
Freshwater ecotoxicity	DCB eq	9,63E-03	2,67E-04	1,61E-04	MND	MND	MND	MND	MND	MND	MND	MNR	7,70E-05	0,00E+00	2,42E-03	-8,87E-05
Human ecotoxicity	DCB eq	3,72E-01	7,55E-03	4,33E-03	MND	MND	MND	MND	MND	MND	MND	MNR	2,18E-03	0,00E+00	8,37E-03	-5,07E-03
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00
ETE	MJ	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00
ADP Fossil Fuels	kg Sbe	1,13E-02	1,23E-04	7,44E-06	MND	MND	MND	MND	MND	MND	MND	MNR	3,56E-05	0,00E+00	1,18E-04	-2,34E-05

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

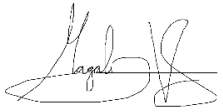
I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Magaly González Vázquez, as an authorized verifier acting for EPD Hub Limited
28.06.2024



VERIFIED ISO 14025