ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Mataki Bromembran B5
Nordic Waterproofing AB

EPD HUB, HUB-3514
Published on 20.06.2025, last updated on 20.06.2030

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.1 (5 Dec 2023) and JRC characterization factors EF 3.1.

Created with One Click LCA

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Nordic Waterproofing AB
Address	Bruksgatan 42, 263 39 Höganäs
Contact details	info@mataki.com
Website	www.mataki.se

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	Siv Persson Hansen
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification
EPD verifier	Imane Uald Lamkaddam as an authorized verifier for EPD Hub

This EPD is intended for business-to-business and/or business-to-consumer communication. 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	Mataki Bromembran B5
Additional labels	
Product reference	-
Place of production	Höganäs, Sweden
Period for data	Calendar year 2022
Averaging in EPD	No grouping
Variation in GWP-fossil for A1-A3 (%)	-
GTIN (Global Trade Item Number)	-
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	75

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 m2 of produced waterproofing sheet
Declared unit mass	6,4987 kg
GWP-fossil, A1-A3 ($kgCO_2e$)	3,87E+00
GWP-total, A1-A3 ($kgCO_2e$)	4,12E+00
Secondary material, inputs (%)	3,55
Secondary material, outputs (%)	100
Total energy use, A1-A3 (kWh)	17,7
Net freshwater use, A1-A3 (m^3)	0,42

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Nordic Waterproofing AB is one of Nordic's leading producers and suppliers of waterproofing products and services for buildings and infrastructure. With a history dating back to 1889, the company has over 130 years of experience in developing solutions tailored to the Nordic climate. Nordic Waterproofing AB offers a comprehensive range of products, including waterproofing membranes for flat and pitched roofing, underlayers and barriers to buildings. Furthermore, the company offers a diverse range of complementary products and accessories such as the NWP Solar, which enable the integration of renewable energy systems into roofing projects.

Nordic Waterproofing`s products are characterized by:

- High quality
- Local adaptation
- Ease of installation
- Energy and environmental awareness
- Long service life

Nordic Waterproofing AB is a key member of the Nordic Waterproofing Group, a prominent entity in the European waterproofing industry. The Group is recognized for its extensive range of innovative waterproofing products and services tailored for buildings and infrastructure.

PRODUCT DESCRIPTION

Heavy-duty waterproofing membrane, YEP 6500 for trafficked built-in structures. Mataki Bromembran B5 is used, among other things, in built-in structures such as parking decks, terraces, bridges, inclined ramps and other trafficked exterior floors that need to be protected from moisture and contamination with a built-in waterproofing layer. Mataki Bromembran B5 maintains its function in severe cold with regard to adhesion and crack bridging ability and meets the requirements of AMA Construction 17 and Waterproofing on bridges TDOK 2013:0531. The product is CE marked according to EN 14695.

Further information can be found on:
www.mataki.se

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	-	-
Minerals	25-35	Sweden
Fossil materials	65-75	EU
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	0,001635

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 m2 of produced waterproofing sheet
Mass per declared unit	6,4987 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	Deconstruction/ demolition	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 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.

A market-based approach is used in modelling the electricity mix utilized in the factory.

Bituminous waterproofing membranes are produced by a continuous process at the factory in Höganäs, Sweden. At the manufacturing site, the raw materials - bitumen, polymers, and fillers - are heated and mixed. A reinforcement is impregnated and coated with this bitumen mixture. The resulting membrane is covered with sand and film. Subsequently, the product is cooled, rolled, and packed on a wooden pallet. The pallet is wrapped with polyethylene packaging film before being sent to customers. The manufacturing process uses only electricity from renewable sources.

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.

The average distance for product delivery from the production plant to the construction site is 529 km. This is based on the annual sales volume of the product. The transport method is lorry, and the volume capacity utilization factor is assumed to be 100%. Empty returns are not considered since it is assumed that the return trip can be used by other clients. Since products are packed properly, there are no losses during transportation.

The installation loss of the product is estimated to be 0.5%. Installation is done by fully torching. Longitudinal overlap and overlap at the edges need to be considered when calculating roof structures. Waste from installation is classified as materials that are recycled or incinerated with energy recovery. The assumed transport distance for waste handling is 100 km.

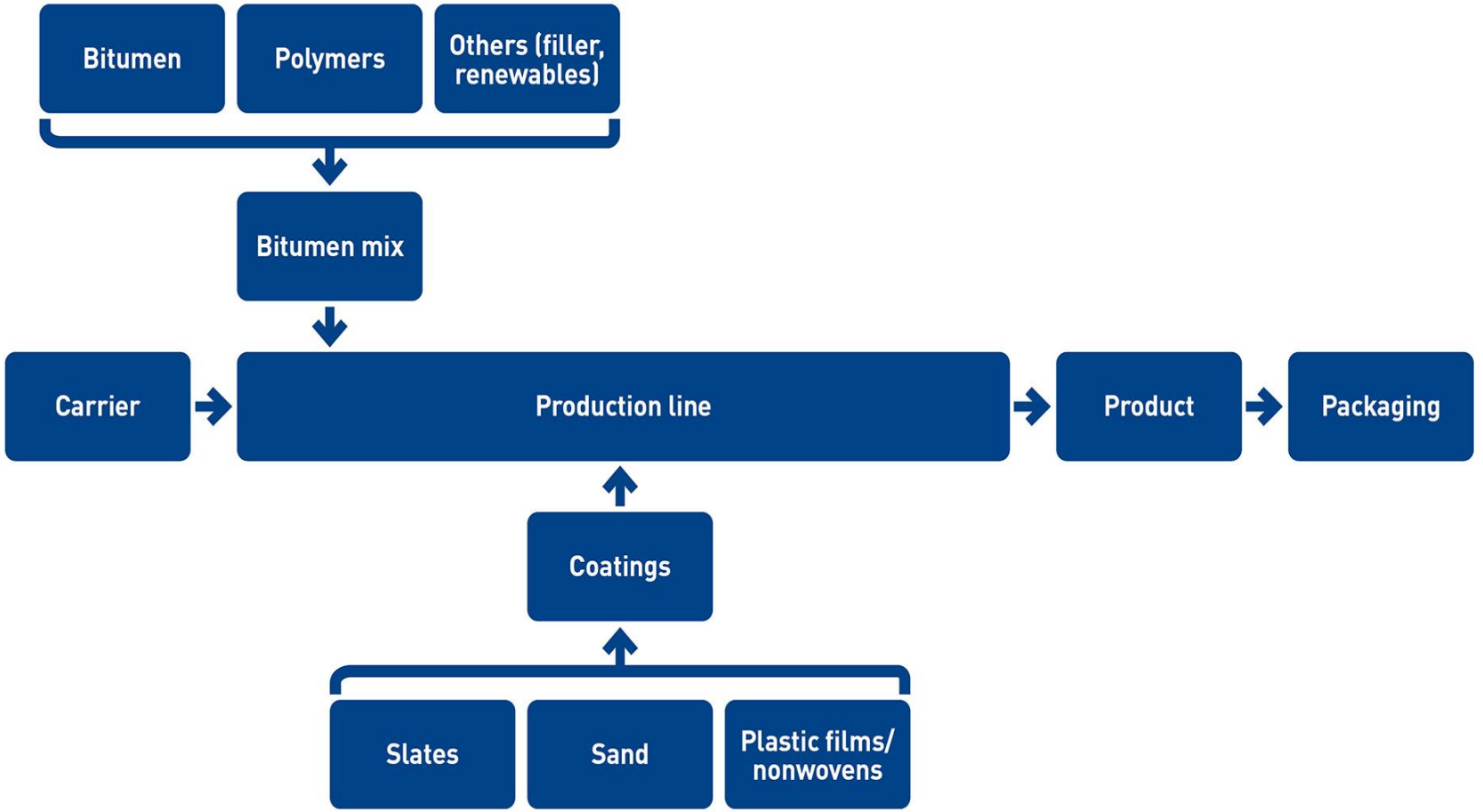
PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover the use phase.
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 stage, it is assumed that the product will be dismantled manually and thus will not require any processes with an environmental impact. The waste is collected as separate construction waste and sent to the closest facility for waste treatment. The transportation distance to the nearest waste treatment facility (that can shred and prepare the membranes for recycling) is estimated to be 300 km, and the transportation method is lorry. The diesel and electricity used to shred the sheets prior to recycling are included in this study. The bitumen membranes are assumed to be recycled and used in asphalt manufacturing to replace virgin materials in road paving.

MANUFACTURING PROCESS



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 that is 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.

The production of capital equipment, construction activities, and infrastructure, maintenance and operation of capital equipment, personnel-related activities, energy and water use related to company management and sales activities are excluded.

VALIDATION OF DATA

Data collection for production, transport, and packaging was conducted using time and site-specific information, as defined in the general information section on page 1 and 2. Upstream process calculations rely on generic data as defined in the Bibliography section. Manufacturer-provided specific and generic data were used for the product's manufacturing stage. The analysis was performed in One Click LCA EPD Generator, with the 'Cut-Off, EN 15804+A2' allocation method, and characterization factors according to EN 15804:2012+A2:2019/AC:2021 and JRC EF 3.1.

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 made according to 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 material	No allocation
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	No grouping
Grouping method	Not applicable
Variation in GWP-fossil for A1-A3, %	-

This EPD is product and factory specific.

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 v3.10.1 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1 environmental data sources follow the methodology ‘allocation, Cut-off, EN 15804+A2‘.

ENVIRONMENTAL IMPACT DATA

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	3,17E+00	5,03E-01	4,46E-01	4,12E+00	6,84E-01	1,04E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,81E-01	5,13E-02	0,00E+00	-7,64E-01
GWP – fossil	kg CO_2e	3,10E+00	5,02E-01	2,75E-01	3,87E+00	6,84E-01	9,35E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,81E-01	5,11E-02	0,00E+00	-7,63E-01
GWP – biogenic	kg CO_2e	7,40E-03	1,08E-04	1,69E-01	1,77E-01	1,37E-04	1,07E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,32E-05	3,62E-05	0,00E+00	-1,04E-03
GWP – LULUC	kg CO_2e	6,77E-02	1,96E-04	1,03E-03	6,89E-02	2,45E-04	5,40E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,69E-04	2,02E-04	0,00E+00	7,19E-05
Ozone depletion pot.	kg CFC_{-11}e	1,77E-07	1,05E-08	6,41E-09	1,94E-07	1,36E-08	1,65E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,32E-09	8,02E-10	0,00E+00	-6,86E-08
Acidification potential	mol H^+e	1,39E-02	1,19E-03	8,73E-04	1,60E-02	1,42E-03	1,90E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,27E-03	4,56E-04	0,00E+00	-6,68E-03
EP-freshwater[2)]	kg Pe	7,68E-05	3,51E-05	6,18E-05	1,74E-04	4,60E-05	6,11E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,96E-05	1,94E-06	0,00E+00	-4,48E-05
EP-marine	kg Ne	1,69E-02	3,12E-04	2,69E-04	1,74E-02	3,42E-04	6,87E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,11E-04	2,10E-04	0,00E+00	-1,83E-02
EP-terrestrial	mol Ne	2,05E-02	3,37E-03	2,54E-03	2,64E-02	3,69E-03	6,56E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,47E-03	2,30E-03	0,00E+00	7,77E-05
POCP ("smog")[3)]	kg NMVOCe	2,56E-02	2,06E-03	9,88E-04	2,86E-02	2,37E-03	3,09E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,77E-03	6,85E-04	0,00E+00	-5,71E-03
ADP-minerals & metals[4)]	kg Sbe	1,29E-05	1,44E-06	7,21E-07	1,50E-05	2,28E-06	2,07E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,25E-06	5,04E-08	0,00E+00	-3,01E-07
ADP-fossil resources	MJ	2,36E+02	7,54E+00	2,77E+00	2,46E+02	9,62E+00	1,35E+01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,34E+00	8,81E-01	0,00E+00	-2,13E+02
Water use[5)]	m^3e depr.	1,16E+00	3,86E-02	1,50E-01	1,35E+00	4,78E-02	5,13E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,48E-02	1,44E-02	0,00E+00	-9,85E-02

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

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	9,68E+00	4,89E-08	2,88E-08	9,68E+00	5,04E-08	4,84E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,02E-08	1,29E-08	0,00E+00	-1,21E+01
Ionizing radiation[6]	kBq U235e	3,63E-01	9,08E-03	1,42E-02	3,86E-01	1,24E-02	1,25E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,32E-03	1,71E-02	0,00E+00	-7,22E-02
Ecotoxicity (freshwater)	CTUe	7,25E+00	8,90E-01	1,37E+00	9,51E+00	1,28E+00	9,86E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,45E-01	4,82E-02	0,00E+00	-4,75E-02
Human toxicity, cancer	CTUh	1,49E-08	8,37E-11	1,56E-10	1,51E-08	1,15E-10	2,11E-10	MND	MND	MND	MND	MND	MND	MND	0,00E+00	6,47E-11	6,40E-12	0,00E+00	-2,51E-09
Human tox. non-cancer	CTUh	1,16E+00	4,87E-09	2,98E-09	1,16E+00	6,09E-09	5,78E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,34E-09	1,21E-10	0,00E+00	-1,45E+00
SQP[7]	-	5,55E+00	7,56E+00	3,07E+00	1,62E+01	5,81E+00	9,37E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,19E+00	9,49E-02	0,00E+00	-2,62E-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	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy[8]	MJ	2,40E+00	1,23E-01	4,75E-01	3,00E+00	1,68E-01	-9,49E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,32E-02	1,62E-01	0,00E+00	-1,57E-01
Renew. PER as material	MJ	7,03E-03	0,00E+00	6,49E-01	6,56E-01	0,00E+00	-6,62E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	-6,67E-03	0,00E+00	5,02E-03
Total use of renew. PER	MJ	2,41E+00	1,23E-01	1,12E+00	3,66E+00	1,68E-01	-1,61E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,32E-02	1,55E-01	0,00E+00	-1,52E-01
Non-re. PER as energy	MJ	5,29E+01	7,54E+00	2,96E-01	6,07E+01	9,62E+00	1,18E+01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,34E+00	8,81E-01	0,00E+00	-1,01E+01
Non-re. PER as material	MJ	1,83E+02	0,00E+00	-5,49E+00	1,77E+02	0,00E+00	-7,10E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	-1,77E+02	0,00E+00	-1,98E+02
Total use of non-re. PER	MJ	2,36E+02	7,54E+00	-5,19E+00	2,38E+02	9,62E+00	1,11E+01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,34E+00	-1,76E+02	0,00E+00	-2,08E+02
Secondary materials	kg	2,31E-01	3,26E-03	4,04E-02	2,74E-01	4,47E-03	7,38E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,40E-03	2,97E-04	0,00E+00	5,70E-03
Renew. secondary fuels	MJ	6,68E-06	4,12E-05	2,39E-03	2,44E-03	5,65E-05	4,43E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,06E-05	7,94E-07	0,00E+00	-3,58E-07
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m^3	2,72E-01	1,11E-03	1,47E-01	4,20E-01	1,31E-03	3,15E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	7,08E-04	3,44E-04	0,00E+00	-5,57E-03

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	5,98E-03	1,09E-02	2,33E-02	4,02E-02	1,40E-02	2,41E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,31E-03	8,88E-04	0,00E+00	-3,42E-03
Non-hazardous waste	kg	3,78E-01	2,19E-01	1,18E+00	1,77E+00	2,95E-01	4,34E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,75E-01	1,31E-02	0,00E+00	-1,93E-01
Radioactive waste	kg	1,94E-03	2,25E-06	3,78E-06	1,94E-03	3,08E-06	1,23E-05	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,06E-06	3,67E-06	0,00E+00	-2,37E-03

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	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	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	2,39E-02	0,00E+00	4,87E-03	2,88E-02	0,00E+00	5,70E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	6,50E+00	0,00E+00	0,00E+00
Materials for energy rec	kg	0,00E+00	0,00E+00	2,58E-01	2,58E-01	0,00E+00	4,22E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	2,02E+00	2,02E+00	0,00E+00	4,05E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy – Electricity	MJ	0,00E+00	0,00E+00	3,03E-01	3,03E-01	0,00E+00	9,24E-02	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy – Heat	MJ	0,00E+00	0,00E+00	1,72E+00	1,72E+00	0,00E+00	3,12E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO_2e	2,99E+00	4,99E-01	2,80E-01	3,77E+00	6,79E-01	9,30E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,79E-01	5,10E-02	0,00E+00	-7,39E-01
Ozone depletion Pot.	kg CFC_{-11}e	6,29E-07	8,32E-09	2,60E-09	6,40E-07	1,08E-08	1,57E-08	MND	MND	MND	MND	MND	MND	MND	0,00E+00	4,25E-09	6,38E-10	0,00E+00	-5,63E-08
Acidification	kg SO_2e	1,18E-02	9,41E-04	6,59E-04	1,34E-02	1,14E-03	1,47E-03	MND	MND	MND	MND	MND	MND	MND	0,00E+00	9,72E-04	3,21E-04	0,00E+00	-5,40E-03
Eutrophication	kg PO_4^3e	4,36E-03	2,35E-04	1,18E-03	5,77E-03	2,89E-04	3,27E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	2,36E-04	7,50E-05	0,00E+00	-2,83E-03
POCP (“smog”)	kg C_2H_4e	6,56E-04	9,59E-05	8,98E-05	8,42E-04	1,21E-04	2,40E-04	MND	MND	MND	MND	MND	MND	MND	0,00E+00	8,71E-05	2,41E-05	0,00E+00	-1,55E-04
ADP-elements	kg Sbe	4,27E-06	1,41E-06	7,13E-07	6,39E-06	2,22E-06	1,98E-06	MND	MND	MND	MND	MND	MND	MND	0,00E+00	1,22E-06	5,02E-08	0,00E+00	-2,99E-07
ADP-fossil	MJ	2,16E+02	7,39E+00	2,55E+00	2,26E+02	9,41E+00	1,33E+01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	5,27E+00	6,54E-01	0,00E+00	-2,13E+02

ENVIRONMENTAL IMPACTS – GWP-GHG - THE INTERNATIONAL EPD SYSTEM

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG[9)]	kg CO_2e	3,16E+00	5,03E-01	2,76E-01	3,94E+00	6,84E-01	9,36E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	3,81E-01	5,13E-02	0,00E+00	-7,63E-01

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.

THIRD-PARTY 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.

Imane Uald Lamkaddam as an authorized verifier for EPD Hub Limited
20.06.2025