



# ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

**Combitherm A (CS IV)**

Combimix AB



**EPD HUB, HUB-5903**

Published on 13.05.2026, last updated on 13.05.2026, valid until 12.05.2031

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.2 (24 Mar 2025) and JRC characterization factors EF 3.1.



Created with One Click LCA



## GENERAL INFORMATION

### MANUFACTURER

Manufacturer	Combimix AB
Address	Backamo 620, 459 91 Ljungskile, Sweden / Verkstadvägen 6, 746 40 Bålsta, Sweden
Contact details	miljo@combimix.se
Website	<a href="https://www.combimix.com/se/">https://www.combimix.com/se/</a>

### EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804:2012+A2:2019/AC:2021 and ISO 14025
PCR	EPD Hub Core PCR Version 1.2, 24 Mar 2025
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	Ebba Hultman
EPD verification	Independent verification of this EPD and data, according to ISO 14025:  <input type="checkbox"/> Internal verification <input checked="" type="checkbox"/> External verification
EPD verifier	HaiHa Nguyen, as an authorized verifier acting for EPD Hub Limited

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	Combitherm A (CS IV)
Place(s) of raw material origin	Sweden, Europe
Place of production	Backamo & Bålsta, Sweden
Place(s) of installation and use	Sweden, Europe
Period for data	10/2024 - 9/2025
Averaging in EPD	No grouping
Variation in GWP-fossil for A1-A3 (%)	± 2,3%
GTIN (Global Trade Item Number)	-
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	64

## ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg
Declared unit mass	1 kg
Mass of packaging	0,0285 kg
GWP-fossil, A1-A3 (kgCO <sub>2</sub> e)	0,2
GWP-total, A1-A3 (kgCO <sub>2</sub> e)	0,15
Secondary material, inputs (%)	0,41
Secondary material, outputs (%)	72,2
Total energy use, A1-A3 (kWh)	0,8
Net freshwater use, A1-A3 (m <sup>3</sup> )	0

## PRODUCT AND MANUFACTURER

### ABOUT THE MANUFACTURER

Combimix develops and manufactures mineral-based products for the construction industry. The assortments includes products for floor leveling, facade plastering, masonry, casting, concrete renovation and restoration mortar for cultural buildings.

### PRODUCT DESCRIPTION

Combitherm A is a cement based dry mortar in render class A (CS IV) with water repellent properties when cured. The product is fiber reinforced and pumpable, making it suitable for both machine application and hand rendering. It can be used for both new construction and renovation of residential and commercial properties, indoors and outdoors. The mortar achieves a compressive strength exceeding 6 MPa after 28 days. It is classified as fire class A1, has good frost resistance and limited water absorption (W 2) according to EN 998-1.

Further information can be found at:  
<https://www.combimix.com/se/>

### PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals		
Minerals	100	Europe
Fossil materials		
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	0,0081

## FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg
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	ND	ND	ND	ND	ND	ND	ND	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	Recycling		
																Recovery		
																Reuse		

Not declared = ND.

## MANUFACTURING AND PACKAGING (A1-A3)

The product stage (A1-A3) encompasses environmental impacts from the production of raw materials and ancillary materials used in manufacturing, as well as fuel consumption by machinery and the management of production waste at manufacturing facilities. Material losses occurring during manufacturing and electricity distribution are also accounted for. Raw materials consist of sand, cement, and filler materials sourced from Swedish and European suppliers. European materials are transported to Sweden by a combination of truck and ship, with transport distances ranging from 90 - 1550 km by truck and 150 - 280 km by sea, followed by distribution to production facilities throughout Sweden. The manufacturing process comprises raw material production, transport to factory, and blending of all raw materials into a homogeneous product. Energy consumption in the manufacturing phase is based on the Swedish residual electricity mix, applying a market based approach at medium voltage.

## TRANSPORT AND INSTALLATION (A4-A5)

Environmental impact from transport to construction site (A4) includes direct emissions from fuel combustion, emissions from fuel production, and infrastructure-related emissions. The product is delivered from factory to customer by truck at full capacity utilization over an average distance of 150 km. For installation (A5), the product is mixed with 15% tap water. The packaging materials are collected and transported to the nearest waste treatment facility (50 km) where 40% of plastic, 83% of paper and 62% of wood is recycled, 37% of plastic, 8% of paper and 30% of wood is incinerated, and 23% of plastic, 9% of paper and 8% of wood ends up in landfill (source: Eurostat).

## 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 end of life, the hardened mortar is demolished (C1) using diesel powered construction machinery. The demolished material is collected, sorted and transported 20 km to the nearest waste treatment facility (C2), where 80% is recovered as construction backfill material (C3) and 20% is sent to landfill (C4), in accordance with Eurostat scenario for mineral waste (2022). A total of 1.029 kg of mortar per declared unit is managed in the end of life phase. Environmental benefits from material recovery are reported separately in module D.

## 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 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 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	Allocated by mass or volume
Packaging material	No allocation
Ancillary materials	Not applicable
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, %	±2,3

This EPD is product and based on averaged data from multiple production facilities (Bålsta and Backamo). The climate impact varies only marginally between the factories (approximately ±2,3% for GWP-fossil A1-A3), which can primarily be attributed to minor differences in energy consumption and transport distances for raw materials. This variation complies with the requirements in GPI 2.9.

## LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 and EPD Process Certification v3.2.3. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1/3.11 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1/3.11 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, EF 3.1

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total <sup>1)</sup>	kg CO <sub>2</sub> e	1,59E-01	2,61E-02	-3,20E-02	1,54E-01	1,65E-02	5,91E-02	ND	ND	ND	ND	ND	ND	ND	3,61E-03	2,26E-02	1,70E-02	4,68E-03	-1,54E-02
GWP – fossil	kg CO <sub>2</sub> e	1,59E-01	2,61E-02	1,41E-02	1,99E-01	1,65E-02	1,30E-02	ND	ND	ND	ND	ND	ND	ND	3,60E-03	2,25E-02	1,70E-02	4,67E-03	-1,26E-02
GWP – biogenic	kg CO <sub>2</sub> e	8,61E-05	5,45E-06	-4,61E-02	-4,60E-02	3,48E-06	4,61E-02	ND	ND	ND	ND	ND	ND	ND	3,68E-07	4,92E-06	-2,04E-05	-1,12E-06	-2,85E-03
GWP – LULUC	kg CO <sub>2</sub> e	2,54E-05	1,02E-05	5,00E-05	8,56E-05	6,21E-06	4,85E-06	ND	ND	ND	ND	ND	ND	ND	3,69E-07	8,78E-06	3,68E-05	9,87E-06	3,28E-07
Ozone depletion pot.	kg CFC <sub>11</sub> e	2,55E-09	5,42E-10	5,89E-10	3,68E-09	3,33E-10	2,06E-10	ND	ND	ND	ND	ND	ND	ND	5,52E-11	4,70E-10	2,73E-10	9,24E-11	-1,55E-10
Acidification potential	mol H <sup>+</sup> e	3,74E-04	6,62E-05	7,10E-05	5,11E-04	5,33E-05	3,07E-05	ND	ND	ND	ND	ND	ND	ND	3,25E-05	5,32E-05	1,11E-04	2,88E-05	-7,47E-05
EP-freshwater <sup>2)</sup>	kg Pe	1,20E-05	1,81E-06	5,68E-06	1,95E-05	1,11E-06	1,15E-06	ND	ND	ND	ND	ND	ND	ND	1,04E-07	1,58E-06	5,72E-06	3,35E-07	-5,95E-06
EP-marine	kg Ne	1,22E-04	1,71E-05	2,30E-05	1,62E-04	1,81E-05	1,06E-05	ND	ND	ND	ND	ND	ND	ND	1,51E-05	1,40E-05	3,94E-05	1,16E-05	-1,71E-05
EP-terrestrial	mol Ne	1,37E-03	1,86E-04	2,36E-04	1,79E-03	1,97E-04	1,10E-04	ND	ND	ND	ND	ND	ND	ND	1,65E-04	1,51E-04	4,25E-04	1,27E-04	-1,96E-04
POCP (“smog”) <sup>3)</sup>	kg NMVOCe	4,31E-04	1,09E-04	1,03E-04	6,43E-04	8,70E-05	3,95E-05	ND	ND	ND	ND	ND	ND	ND	4,93E-05	9,25E-05	1,38E-04	4,22E-05	-6,07E-05
ADP-minerals & metals <sup>4)</sup>	kg Sbe	3,10E-05	7,47E-08	6,76E-08	3,12E-05	4,56E-08	1,56E-06	ND	ND	ND	ND	ND	ND	ND	1,29E-09	6,45E-08	4,68E-08	1,03E-08	-5,70E-08
ADP-fossil resources	MJ	2,38E+00	3,90E-01	4,80E-01	3,25E+00	2,39E-01	1,79E-01	ND	ND	ND	ND	ND	ND	ND	4,72E-02	3,39E-01	2,52E-01	7,91E-02	-1,86E-01
Water use <sup>5)</sup>	m <sup>3</sup> e depr.	2,49E-01	1,99E-03	1,02E-02	2,61E-01	1,23E-03	1,82E-02	ND	ND	ND	ND	ND	ND	ND	1,18E-04	1,73E-03	1,55E-03	2,98E-04	-1,23E-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 PO<sub>4</sub>e; 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, EF 3.1

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	4,18E-09	2,51E-09	1,19E-09	7,88E-09	1,64E-09	5,08E-10	ND	ND	ND	ND	ND	ND	ND	9,25E-10	2,20E-09	8,48E-09	2,25E-09	-9,75E-10
Ionizing radiation <sup>6)</sup>	kBq CTUe	2,20E-02	4,70E-04	2,35E-02	4,60E-02	2,89E-04	2,34E-03	ND	ND	ND	ND	ND	ND	ND	2,09E-05	4,08E-04	4,08E-04	5,59E-05	-1,46E-03
Ecotoxicity (freshwater)	CTUe	1,15E+00	4,61E-02	9,70E-02	1,29E+00	2,82E-02	7,02E-02	ND	ND	ND	ND	ND	ND	ND	2,60E-03	3,99E-02	1,09E-01	1,68E-02	-3,33E-02
Human toxicity, cancer	CTUh	3,18E-11	4,36E-12	4,39E-11	8,01E-11	2,72E-12	4,58E-12	ND	ND	ND	ND	ND	ND	ND	3,71E-13	3,76E-12	4,19E-12	9,39E-13	-2,97E-12
Human tox. non-cancer	CTUh	6,15E-10	2,51E-10	1,28E-10	9,94E-10	1,56E-10	8,19E-11	ND	ND	ND	ND	ND	ND	ND	5,87E-12	2,19E-10	1,85E-10	3,20E-11	-9,30E-11
SQP <sup>7)</sup>	-	9,42E-01	3,85E-01	3,88E+00	5,21E+00	2,41E-01	2,75E-01	ND	ND	ND	ND	ND	ND	ND	3,30E-03	3,41E-01	2,44E-01	9,18E-02	-3,25E-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 <sup>8)</sup>	MJ	8,58E-02	6,35E-03	3,13E-01	4,05E-01	3,90E-03	-1,36E-01	ND	ND	ND	ND	ND	ND	ND	2,99E-04	5,51E-03	7,02E-03	9,08E-04	6,81E-03
Renew. PER as material	MJ	0,00E+00	0,00E+00	4,07E-01	4,07E-01	0,00E+00	-4,07E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,86E-02
Total use of renew. PER	MJ	8,58E-02	6,35E-03	7,20E-01	8,12E-01	3,90E-03	-5,42E-01	ND	ND	ND	ND	ND	ND	ND	2,99E-04	5,51E-03	7,02E-03	9,08E-04	4,54E-02
Non-re. PER as energy	MJ	1,38E+00	3,90E-01	3,91E-01	2,16E+00	2,39E-01	6,31E-02	ND	ND	ND	ND	ND	ND	ND	4,72E-02	3,39E-01	2,52E-01	7,91E-02	-1,86E-01
Non-re. PER as material	MJ	7,20E-01	0,00E+00	8,86E-02	8,09E-01	0,00E+00	-8,88E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	-5,76E-01	-1,44E-01	3,10E-02
Total use of non-re. PER	MJ	2,10E+00	3,90E-01	4,80E-01	2,97E+00	2,39E-01	-2,57E-02	ND	ND	ND	ND	ND	ND	ND	4,72E-02	3,39E-01	-3,24E-01	-6,49E-02	-1,55E-01
Secondary materials	kg	4,09E-03	1,69E-04	1,47E-03	5,73E-03	1,04E-04	3,01E-04	ND	ND	ND	ND	ND	ND	ND	1,96E-05	1,46E-04	1,00E-04	2,87E-05	1,77E-03
Renew. secondary fuels	MJ	1,27E-01	2,12E-06	1,28E-02	1,40E-01	1,31E-06	6,98E-03	ND	ND	ND	ND	ND	ND	ND	5,12E-08	1,85E-06	1,13E-06	3,78E-07	-8,65E-07
Non-ren. secondary fuels	MJ	1,73E-01	0,00E+00	0,00E+00	1,73E-01	0,00E+00	8,67E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m <sup>3</sup>	2,39E-03	5,73E-05	2,82E-04	2,73E-03	3,54E-05	2,89E-04	ND	ND	ND	ND	ND	ND	ND	3,12E-06	5,00E-05	-7,91E-04	3,96E-05	-3,06E-04

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	4,75E-03	5,65E-04	1,33E-03	6,64E-03	3,47E-04	4,37E-04	ND	ND	ND	ND	ND	ND	ND	5,25E-05	4,90E-04	6,04E-04	1,13E-04	-9,91E-04
Non-hazardous waste	kg	3,98E-02	1,13E-02	8,27E-02	1,34E-01	6,94E-03	2,01E-02	ND	ND	ND	ND	ND	ND	ND	7,15E-04	9,81E-03	1,12E+00	2,17E-03	-3,64E-02
Radioactive waste	kg	4,92E-06	1,16E-07	1,08E-06	6,12E-06	7,14E-08	3,16E-07	ND	ND	ND	ND	ND	ND	ND	5,12E-09	1,01E-07	9,92E-08	1,37E-08	-3,64E-07

## 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	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	1,33E-04	0,00E+00	0,00E+00	1,33E-04	0,00E+00	8,27E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	8,30E-01	0,00E+00	0,00E+00
Materials for energy rec	kg	3,94E-07	0,00E+00	0,00E+00	3,94E-07	0,00E+00	1,97E-08	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ	7,54E-06	0,00E+00	0,00E+00	7,54E-06	0,00E+00	4,99E-02	ND	ND	ND	ND	ND	ND	ND	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	0,00E+00	0,00E+00	0,00E+00	2,12E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy –	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,87E-02	ND	ND	ND	ND	ND	ND	ND	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 <sub>2</sub> e	1,75E-01	2,59E-02	1,40E-02	2,14E-01	1,64E-02	1,39E-02	ND	ND	ND	ND	ND	ND	ND	3,59E-03	2,24E-02	1,69E-02	4,65E-03	-1,25E-02
Ozone depletion Pot.	kg CFC <sub>11</sub> e	3,05E-09	4,31E-10	6,24E-10	4,10E-09	2,65E-10	2,23E-10	ND	ND	ND	ND	ND	ND	ND	4,37E-11	3,74E-10	2,18E-10	7,36E-11	-1,29E-10
Acidification	kg SO <sub>2</sub> e	2,55E-04	5,26E-05	5,44E-05	3,62E-04	4,05E-05	2,19E-05	ND	ND	ND	ND	ND	ND	ND	2,29E-05	4,22E-05	8,42E-05	2,10E-05	-5,89E-05
Eutrophication	kg PO <sub>4</sub> <sup>3</sup> e	1,09E-04	1,25E-05	3,33E-04	4,55E-04	1,02E-05	2,41E-05	ND	ND	ND	ND	ND	ND	ND	5,34E-06	1,05E-05	2,12E-05	6,05E-06	-1,14E-05
POCP (“smog”)	kg C <sub>2</sub> H <sub>4</sub> e	3,68E-05	5,14E-06	8,86E-06	5,08E-05	3,80E-06	2,93E-06	ND	ND	ND	ND	ND	ND	ND	1,71E-06	4,30E-06	6,17E-06	1,79E-06	-5,09E-06
ADP-elements	kg Sbe	4,39E-07	7,30E-08	6,57E-08	5,78E-07	4,46E-08	3,27E-08	ND	ND	ND	ND	ND	ND	ND	1,26E-09	6,30E-08	4,59E-08	1,01E-08	-5,63E-08

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADP-fossil	MJ	1,99E+00	3,82E-01	2,58E-01	2,63E+00	2,35E-01	1,47E-01	ND	ND	ND	ND	ND	ND	ND	4,68E-02	3,32E-01	2,45E-01	7,82E-02	-1,61E-01

### ADDITIONAL INDICATOR – GWP-GHG

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG <sup>9)</sup>	kg CO <sub>2</sub> e	1,59E-01	2,61E-02	1,41E-02	2,00E-01	1,65E-02	1,30E-02	ND	ND	ND	ND	ND	ND	ND	3,61E-03	2,26E-02	1,70E-02	4,68E-03	-1,26E-02

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. In addition, the characterisation factors for the flows – CH<sub>4</sub> fossil, CH<sub>4</sub> biogenic and Dinitrogen monoxide – were updated. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterisation factor for biogenic CO<sub>2</sub> is set to zero

## SCENARIO DOCUMENTATION

### DATA SOURCES

#### Manufacturing energy scenario documentation

Scenario information	Value
Electricity data source and quality	Electricity, medium voltage, residual mix, Sweden, BAFU
Electricity CO2e / kWh	0.077
Diesel data source and quality	Market for diesel, burned in building machine, World, Ecoinvent
Diesel CO2e / MJ	0.10

#### Transport scenario documentation - A4

Scenario information	Value
Fuel type, consumption and vehicle type	Market for transport, freight, lorry >32 metric ton, EURO5
Average transport distance, km	150
Capacity utilization (including empty return) %	According to Ecoinvent 3.10.1 dataset average for Europe
Bulk density of transported products	1 200 kg/m <sup>3</sup>
Volume capacity utilization factor	<1

#### Installation scenario documentation - A5

Scenario information	Value
Ancillary materials for installation / kg	0.15 kg tap water (Ecoinvent)
Water use / m <sup>3</sup>	0.00015
Other resource use / kg	0
Energy use during installation / kWh or MJ	0
Waste materials before waste processing / kg	Paper: 0,002, Wood: 0,025, Plastic 0,0015
Output materials as result of waste processing	Wood sorting: 0,000011 Wood incineration with energy recovery: 0,0051 Wood landfill: 0.00000014 Paper sorting: 0.00035 Paper incineration with energy recovery: 0.000034 Paper landfill: 0.000038
Direct emissions to ambient air / m <sup>3</sup>	0,00011

#### End-of-life scenario documentation - C1-C4

Scenario information	Value
Collection process – kg collected separately	1.04
Collection process – kg collected with mixed waste	0
Recovery process – kg for re-use	0
Recovery process – kg for recycling	0.83
Recovery process – kg for energy recovery	0
Disposal (total) – kg for final deposition	0.21
Scenario assumptions e.g. transportation	Crushed material reused as fill. C3: 250 km by lorry. C4: 50 km by lorry to final disposal.

## THIRD-PARTY VERIFICATION STATEMENT

EPD Hub declares that this EPD is verified in accordance with ISO 14025 by an independent, third-party verifier. The project report on the Life Cycle Assessment and the report(s) on features of environmental relevance are filed at EPD Hub. EPD Hub PCR and ECO Platform verification checklist are used.

EPD Hub is not able to identify any unjustified deviations from the PCR and EN 15804+A2 in the Environmental Product Declaration and its project report.

EPD Hub maintains its independence as a third-party body; it was not involved in the execution of the LCA or in the development of the declaration and has no conflicts of interest regarding this verification.

The company-specific data and upstream and downstream data have been examined as regards plausibility and consistency. The publisher is responsible for ensuring the factual integrity and legal compliance of this declaration.

The software used in creation of this LCA and EPD is verified by EPD Hub to conform to the procedural and methodological requirements outlined in ISO 14025:2010, ISO 14040/14044, EN 15804+A2, and EPD Hub Core Product Category Rules and General Program Instructions.

### Verified tools

Tool verifier: Magaly Gonzalez Vazquez

Tool verification validity: 27 March 2025 - 26 March 2028

HaiHa Nguyen, as an authorized verifier acting for EPD Hub Limited  
14.04.2026

