



ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

Arena 500
Komproment Aps



EPD HUB, HUB-7191

Published on 14.08.2026, last updated on 14.08.2026, valid until 13.08.2031

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.

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Komproment Aps
Address	Porsborgparken 21, 9530 Støvring
Contact details	Salg@komproment.dk
Website	www.komproment.dk

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
c-PCR	EN 17160 Product category rules for ceramic tiles
Sector	Construction product
Category of EPD	Third party verified EPD
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Martin Oddershede
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☒ External verification
EPD verifier	Afzal khan Peerukhan 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	Arena 500
Place(s) of raw material origin	Italy
Place of production	Via Tolomei 61, Loreggia (PD), Italy
Place(s) of installation and use	Scandinavia
Period for data	Calendar year 2025
Grouping in EPD	Based on a representative product
Variation in GWP-fossil for A1-A3 (%)	+0,2% / -43%
A1-A3 Specific data (%)	52,70

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 tonne of clay tiles
Declared unit mass	1000 kg
Mass of packaging	21,77 kg
GWP-fossil, A1-A3 (kgCO₂e)	405
GWP-total, A1-A3 (kgCO₂e)	335
Secondary material, inputs (%)	8,42
Total energy use, A1-A3 (kWh)	2020
Net freshwater use, A1-A3 (m³)	13,50

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Komproment is a Danish manufacturer of façade systems for the Nordic market and part of the wienerberger Group, one of the world's largest building material manufacturers. With more than 23 years of experience, Komproment develops durable façade solutions designed for long service life and circularity. The company focuses on design for disassembly and transparent material documentation to support sustainable construction.

PRODUCT DESCRIPTION

This EPD covers three façade tile formats: Arena 500U, Arena 500L and Arena 500I, available in different colour variants. All tiles are produced in Italy and consist primarily of clay, sand and water sourced in Italy. The products are intended for ventilated façade cladding and roofing applications.

The declared façade clay tiles are covered by EN 1304 and have an expected Reference Service Life (RSL) of 150 years, based on the TBE *Internal Guidance Document on TBE PCR for Clay Construction Products* (June 2020).

Further information can be found at www.komproment.dk.

PRODUCT VARIANTS

The EPD is based on the Greige tile as the reference product. The product stage results for GWP total (A1–A3) for the remaining colour variants are presented in **Annex 1** as a conversion table.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Minerals	100	Italy

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	9,24

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 tonne of clay tiles
Mass per declared unit	1000 kg
Reference service life	150 years

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	Reuse	Recovery	Recycling

Not declared = ND.

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover raw materials, transport, packaging and ancillary materials, energy consumption, production losses and manufacturing waste. No production loss is included in the model.

Factory electricity is modelled using Italian national electricity consumption mix and has a GWP-fossil of 0,30 kg CO₂e/kWh]. Natural gas and fuel oil are used for thermal processes, while diesel is used for internal transport and handling.

A1 – Extraction and processing of raw materials

A2 – Transport to the production site

A3 – Manufacturing processes

Raw materials are transported by truck. The applied transport distances range from 17 to 1,107 km, depending on the material and supplier. For the principal clay input, 88% is transported 500 km, while 12% is sourced locally.

All manufacturing takes place at the production facility in Loreggia, Padova, Italy. Clay and other minerals are extracted and transported to the facility, where stones and impurities are removed. The clay is mixed, pre-pugged and shaped by extrusion. The tiles are then cut, dried using recovered heat, fired with natural gas in a tunnel kiln and cooled.

The finished tiles are stacked on wooden EU pallets and wrapped in polyethylene film. Ancillary materials include water and lubricating oil.

No solid manufacturing waste requiring external treatment is generated. Process water is discharged to wastewater treatment, while lubricating oil is fully consumed during production. Consequently, no transport or external end-of-life treatment of manufacturing waste is modelled in A3.

Since modules A4–A5 are declared, energy recovery from the incineration of packaging material is reported in module D.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts from the delivery of the final product to the construction site (A4) include direct fuel emissions, impacts from fuel production and related infrastructure.

Modules A4–A5 cover the transportation of the tiles and packaging materials from the production site to the construction site, as well as the installation stage. The representative transport scenario comprises 1,439 km by electric freight train and 385 km by EURO 6 freight lorry, corresponding to a total distance of 1,824 km. The standard capacity utilization assumptions included in the selected transport datasets are applied. In accordance with the TBE PCR for Clay Construction Products, installation is assumed to be primarily manual and to require little or no energy or water. Wood and plastic packaging waste generated on-site is treated as installation waste in module A5 using the applicable waste-treatment and transport assumptions. Energy recovery from the incineration of packaging waste is reported in module D.

PRODUCT END OF LIFE (C1-C4, D)

C1 - de-construction, demolition

C2 - transport to waste processing

C3 - waste processing for reuse, recovery and/or recycling

C4 - disposal

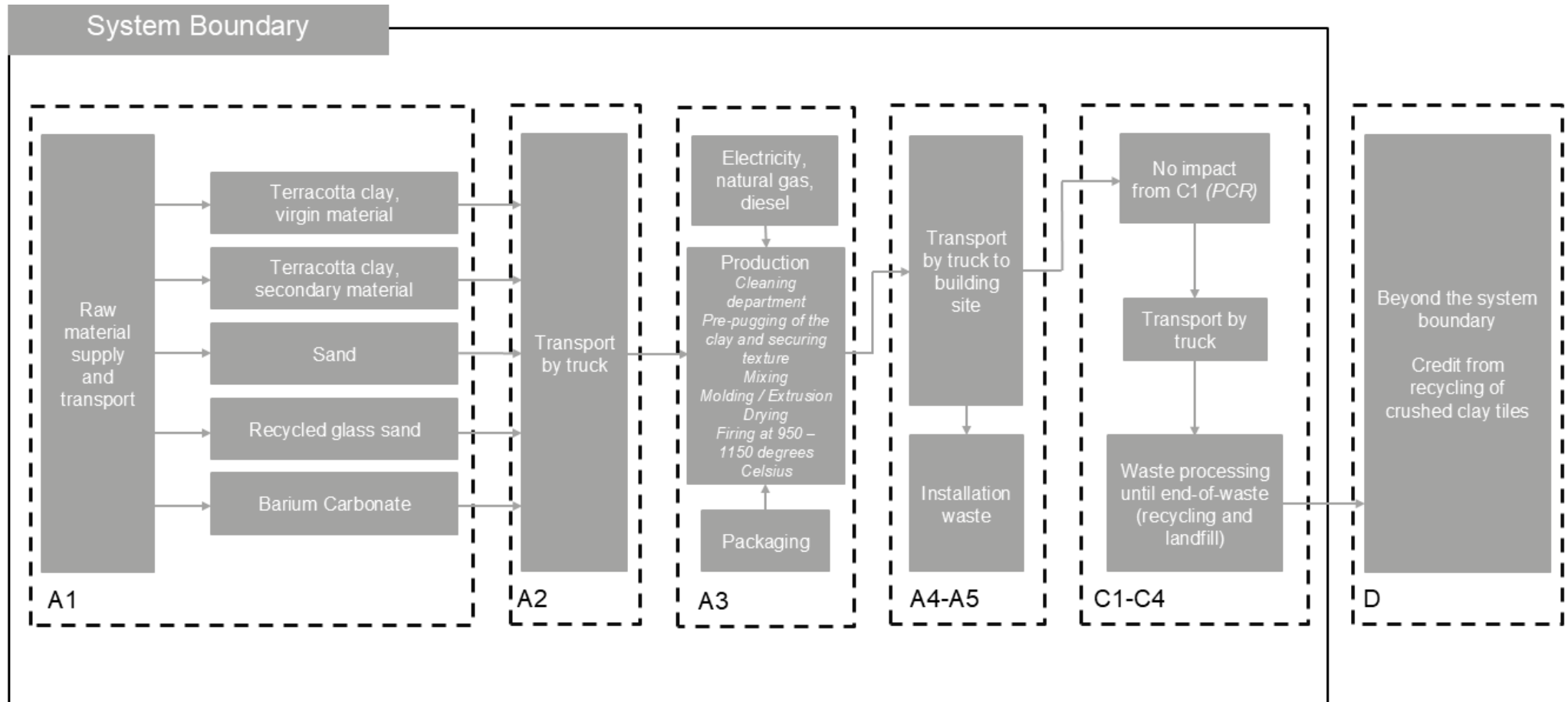
C1 can be ignored according to the PCR, whereas the rest of the modules are included using national scenarios over predefined end of life scenarios from the PCR. A Danish waste scenario is used to represent the Danish marked used in this LCA study.

In C2 transport distances to waste processes according to the PCR has been applied in the model.

In C3-C4 1% of the bricks are landfilled (C4) and 99% are recycled (C3) in Denmark according to the PCR. For the recycling the bricks are crushed into smaller pieces and used as gravel for roadfill (Miljøstyrelsen, 2003).

Module D includes the reuse, recovery and/or recycling potentials, expressed as net impacts and benefits. This includes the substitution of gravel from the recycling of crushed bricks. According to EN15804+A2 section 6.4.3.3, the benefit potential in module D is calculated from the net output flow. Thus, it is only the primary material content in the tiles that are calculated as recycled with a substitution of gravel. This excludes the amount of secondary material input, which is the clay from the public excavation (12% of the total clay input).

LIFE CYCLE FLOW DIAGRAM



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 of 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 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	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	Product variants
Grouping method	Based on a representative product; A1-A3 results are provided for the product variants.
Variation in GWP-fossil for A1-A3, %	+0,2% / -43%

LCA SOFTWARE AND BIBLIOGRAPHY

The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1/3.11/3.12 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1/3.11/3.12 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 ¹⁾	kg CO ₂ e	1,48E+02	3,67E+01	1,51E+02	3,35E+02	6,25E+01	3,37E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,82E+00	5,02E-01	1,83E-01	-1,74E+00
GWP – fossil	kg CO ₂ e	1,85E+02	3,67E+01	1,84E+02	4,05E+02	6,23E+01	1,01E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,82E+00	5,02E-01	1,82E-01	-1,73E+00
GWP – biogenic	kg CO ₂ e	-3,76E+01	8,10E-03	-3,27E+01	-7,03E+01	1,08E-01	3,27E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,57E-03	9,56E-05	2,45E-04	0,00E+00
GWP – LULUC	kg CO ₂ e	1,71E-01	1,47E-02	3,95E-02	2,25E-01	3,94E-02	1,11E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,04E-03	5,14E-05	4,71E-04	-5,79E-03
Ozone depletion pot.	kg CFC-11e	4,55E-06	7,15E-07	5,30E-06	1,06E-05	1,12E-06	1,13E-08	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,91E-08	7,45E-09	3,58E-09	-5,00E-08
Acidification potential	mol H ⁺ e	9,91E-01	9,56E-02	1,78E-01	1,26E+00	2,33E-01	3,99E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,37E-02	4,49E-03	9,90E-04	-1,09E-02
EP-freshwater ²⁾	kg Pe	1,15E+01	2,87E-03	2,86E-02	1,15E+01	1,01E-02	1,94E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	7,39E-04	1,62E-05	1,87E-05	-1,37E-03
EP-marine	kg Ne	1,38E-01	2,70E-02	5,64E-02	2,21E-01	6,93E-02	4,35E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	7,84E-03	2,09E-03	3,75E-04	-2,76E-03
EP-terrestrial	mol Ne	1,42E+00	2,92E-01	5,85E-01	2,29E+00	7,50E-01	1,63E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,47E-02	2,29E-02	4,06E-03	-2,78E-02
POCP (“smog”) ³⁾	kg NMVOC	6,71E-01	1,59E-01	3,20E-01	1,15E+00	3,12E-01	5,29E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,47E-02	6,84E-03	1,43E-03	-8,73E-03
ADP-minerals & metals ⁴⁾	kg Sbe	1,05E+02	1,05E-04	6,75E-05	1,05E+02	3,06E-04	1,89E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,95E-05	1,81E-07	4,90E-07	-5,07E-06
ADP-fossil resources	MJ	2,95E+03	5,45E+02	3,00E+03	6,50E+03	1,07E+03	9,89E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,73E+01	6,54E+00	3,22E+00	-4,05E+01
Water use ⁵⁾	m ³ e depr.	6,89E+01	2,87E+00	5,37E+00	7,72E+01	8,53E+01	2,87E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,68E-01	1,68E-02	7,72E-02	-1,12E+00

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, 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	9,11E-06	3,58E-06	1,47E-06	1,42E-05	7,09E-06	6,93E-08	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,68E-07	1,28E-07	2,16E-08	-2,66E-07
Ionizing radiation ⁶⁾	kBq U235e	2,50E+01	6,15E-01	3,67E+00	2,93E+01	1,37E+01	2,68E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,16E-02	2,78E-03	2,37E-03	-9,80E-01
Ecotoxicity (freshwater)	CTUe	4,65E+03	7,45E+01	6,35E+02	5,36E+03	1,81E+02	3,52E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,02E+01	3,74E+00	3,00E+00	-4,70E+00
Human toxicity, cancer	CTUh	3,97E-07	6,04E-09	4,02E-08	4,43E-07	1,95E-08	3,66E-10	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,07E-09	5,12E-11	4,04E-11	-5,65E-10
Human tox. non-cancer	CTUh	1,72E-06	3,49E-07	3,11E-07	2,38E-06	7,48E-07	1,98E-08	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,05E-08	8,05E-10	1,43E-09	-2,12E-08
SQP ⁷⁾	-	4,27E+03	5,48E+02	2,88E+03	7,70E+03	1,16E+03	9,49E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,70E+01	4,32E-01	4,35E+00	-4,33E+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	7,90E+02	8,60E+00	3,66E+02	1,16E+03	5,13E+02	-3,16E+02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,35E+00	4,10E-02	3,98E-02	-2,71E+01
Renew. PER as material	MJ	0,00E+00	0,00E+00	3,26E+02	3,26E+02	0,00E+00	-3,26E+02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total use of renew. PER	MJ	7,90E+02	8,60E+00	6,91E+02	1,49E+03	5,13E+02	-6,42E+02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,35E+00	4,10E-02	3,98E-02	-2,71E+01
Non-re. PER as energy	MJ	2,72E+03	5,45E+02	2,81E+03	6,08E+03	1,07E+03	-4,61E-01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,73E+01	6,54E+00	3,22E+00	-4,11E+01
Non-re. PER as material	MJ	0,00E+00	0,00E+00	3,25E+01	3,25E+01	0,00E+00	-3,25E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,97E+00
Total use of non-re. PER	MJ	2,72E+03	5,45E+02	2,85E+03	6,12E+03	1,07E+03	-3,30E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,73E+01	6,54E+00	3,22E+00	-3,91E+01
Secondary materials	kg	8,42E+01	2,34E-01	2,05E+00	8,65E+01	1,55E+00	7,02E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,07E-02	2,71E-03	1,12E-03	5,71E-02
Renew. secondary fuels	MJ	9,43E-03	2,97E-03	1,10E+01	1,10E+01	6,41E-03	6,94E-05	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,31E-04	7,09E-06	1,75E-05	-3,28E-05
Non-ren. secondary fuels	MJ	2,11E-03	0,00E+00	0,00E+00	2,11E-03	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

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Use of net fresh water	m ³	1,26E+01	8,00E-02	8,15E-01	1,35E+01	1,96E+00	-2,75E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,40E-02	4,19E-04	1,84E-03	-3,28E-02

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	1,20E+01	1,36E+00	2,86E+00	1,62E+01	1,27E+01	6,85E-02	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,22E-01	7,33E-03	5,63E-03	-9,30E-02
Non-hazardous waste	kg	4,67E+03	2,69E+01	2,50E+01	4,73E+03	1,26E+02	4,82E+01	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,23E+01	1,07E-01	1,14E-01	-7,75E+00
Radioactive waste	kg	7,61E-03	1,51E-04	2,27E-03	1,00E-02	3,56E-03	6,68E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,95E-05	6,83E-07	5,80E-07	-2,52E-04

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	3,54E-01	0,00E+00	0,00E+00	3,54E-01	0,00E+00	6,98E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	1,98E+03	0,00E+00	0,00E+00
Materials for energy rec	kg	5,67E+00	0,00E+00	0,00E+00	5,67E+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
Exported energy	MJ	3,71E-03	0,00E+00	0,00E+00	3,71E-03	0,00E+00	3,57E+01	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	1,51E+01	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	2,07E+01	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 ₂ e	1,87E+02	3,65E+01	1,83E+02	4,06E+02	6,20E+01	1,47E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,78E+00	5,00E-01	1,81E-01	-1,73E+00
Ozone depletion Pot.	kg CFC-11e	3,89E-06	5,69E-07	4,30E-06	8,75E-06	8,99E-07	9,07E-09	ND	ND	ND	ND	ND	ND	ND	0,00E+00	7,91E-08	5,94E-09	2,87E-09	-4,79E-08
Acidification	kg SO ₂ e	9,12E-01	7,50E-02	1,37E-01	1,12E+00	1,81E-01	2,96E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,81E-02	3,15E-03	7,35E-04	-8,78E-03
Eutrophication	kg PO ₄ ³ e	3,35E+00	1,92E-02	3,12E-01	3,68E+00	4,23E-02	1,08E-03	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,90E-03	7,43E-04	2,33E-04	-1,73E-03
POCP ("smog")	kg C ₂ H ₄ e	6,99E-02	7,33E-03	1,48E-02	9,20E-02	1,68E-02	3,38E-04	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,57E-03	2,37E-04	6,48E-05	-7,72E-04
ADP-elements	kg Sbe	1,03E+02	1,02E-04	6,66E-05	1,03E+02	2,99E-04	1,81E-06	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,90E-05	1,75E-07	4,78E-07	-5,02E-06

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	2,32E+03	5,35E+02	2,83E+03	5,69E+03	8,24E+02	9,45E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,60E+01	6,50E+00	3,18E+00	-2,32E+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 ⁹⁾	kg CO ₂ e	1,85E+02	3,67E+01	1,84E+02	4,06E+02	6,24E+01	1,01E+00	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,82E+00	5,02E-01	1,83E-01	-1,74E+00

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 – ch4 fossil, ch4 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 co2 is set to zero

SCENARIO DOCUMENTATION

DATA SOURCES

Manufacturing energy scenario documentation

1. Heat, from natural gas, Italy, BAFU, 0,05 kg CO₂e/MJ
2. Electricity Italy, Italy, Ecoinvent, 0,08 kg CO₂e/MJ
3. Market for diesel, World, Ecoinvent, 0,86 kg CO₂e/kg
4. Light fuel oil, World, One Click LCA, 0,32 kg CO₂e/kWh

Transport scenario documentation - A4 (Transport resources)

1. Transport, freight, train, electric, 1439 km
2. Market for transport, freight, lorry >32 metric ton, EURO6, 385 km

Transport to the building site (A4) - Scenario documentation

Scenario parameter	Value
Capacity utilization (including empty return) %	Data included in dataset
Bulk density of transported products	1630
Volume capacity utilization factor	1

Installation at the building site (A5) - Scenario documentation

Scenario parameter	Value
Waste materials: type and mass (kg)	21,51 kg wooden pallet and 0,26 kg plastic packaging
Waste materials: output routes	Pallet, 6,88 kg recycled, 6,45 kg incinerated, 8,17 kg landfilled; plastic, 0,1 kg recycled, 0,09 kg incinerated, 0,06 kg landfilled

End of life (C1-C4) - Scenario documentation

Scenario information	Value
Recovery: re-use (kg)	0
Recovery: recycling (kg)	990
Recovery: energy recovery (kg)	0
Disposal (kg)	10
Scenario assumptions e.g. transportation (mode, km) & other	According to PCR 39 km to waste processor + 23 km to final destination

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 is 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

Afzal khan Peerukhan as an authorized verifier for EPD Hub Limited 14.08.2026



ANNEX 1 – CONVERSION TABLE FOR PRODUCT STAGE GWP (A1-A3) – EN 15804+A2

Color variant		Mass per declared unit, kg	Declared unit	GWP total (A1-A3 kg/CO ₂ eq pr. declared unit)
	Greige (Baseline)	1000 kg	1 tonne	3,35E+02
	Nordic Red	1000 kg	1 tonne	3,85E+02
	Sandstone	1000 kg	1 tonne	2,98E+02
	Terracotta	1000 kg	1 tonne	1,99E+02
	Venezian Grey	1000 kg	1 tonne	3,36E+02
	Vintage Red	1000 kg	1 tonne	3,85E+02