DAPHabitat System

Environmental Product Declaration

www.daphabitat.pt

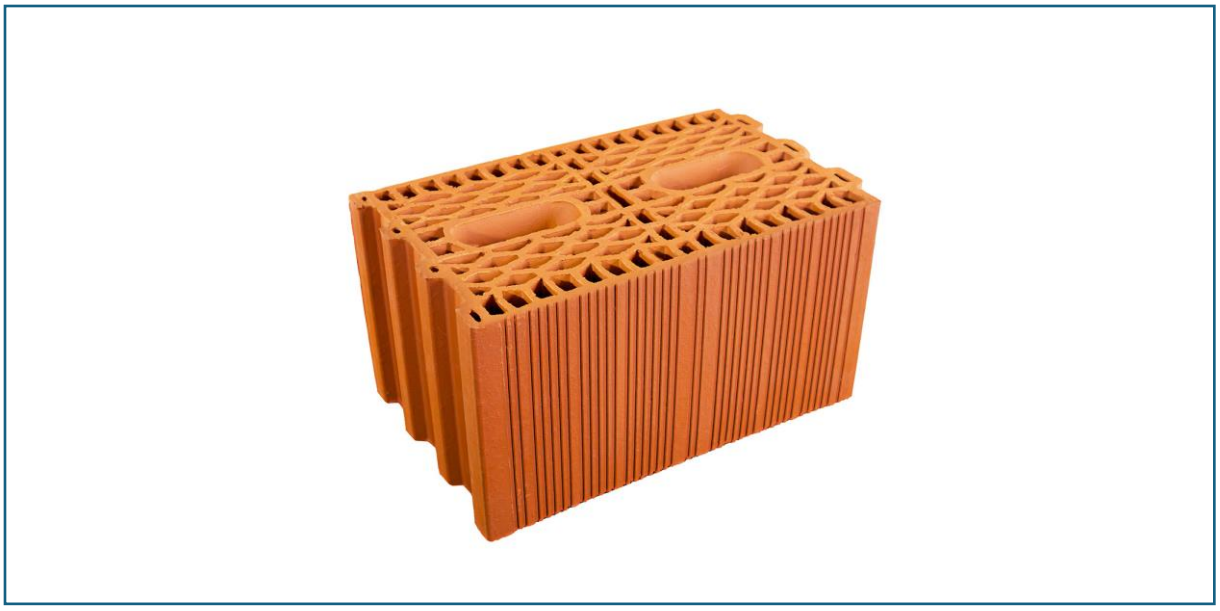
[according to ISO 14025, EN 15804:2012+A2:2019 e EN 15942]

Declaration number: DAP 038:2026

CERAMIC BLOCKS/BRICKS

Issue date: 08/10/2026 **Valid until:** 07/10/2031

COS - Cerâmica Outeiro do Seixo, S.A.



Version 1.7 Edition February 2026

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1. GENERAL INFORMATION

1.1. The DAPHabitat System

Programme operator:	Associação Plataforma para a Construção Sustentável www.clusterhabitat.pt geral@clusterhabitat.pt
Address:	R. Coronel Veiga Simão, Ed. CTCV Lufapo Hub 3025-307 Coimbra
Email address:	deptecnico@clusterhabitat.pt
Telephone number:	(+351) 234 401 576
Website:	www.daphabitat.pt
Logo:	

1.2. EPD owner

Name of the owner:	COS - Cerâmica Outeiro do Seixo, S.A.
Production site:	Rua da Cerâmica Nova, Cabeça-Gorda, 2565-001 Campelos, Torres Vedras
Address (head office):	Rua da Cerâmica Nova, Cabeça-Gorda, 2565-001 Campelos, Torres Vedras
Telephone number:	Luís Matias: +351 919 456 022
Email address:	luismatias@outeiroseixo.pt
Website:	www.outeiroseixo.pt
Logo:	
Information concerning the applicable management Systems:	Due to the numerous environmental regulations and the extensive amount of environmental information required to be submitted to the environmental authorities (APA, CCDR, etc.), the company has a well-defined plan covering all activities related to environmental matters.
Specific aspects regarding production:	Main NACE Code (Economic Activity Code): 23321 – Manufacture of bricks (ceramic products for construction).
Organization's environmental policy:	4Rs Policy – Reduce, Reuse, Restore, and Recycle.

1.3. Information concerning the EPD

Authors:	AECycle, Lda. José Dinis Silvestre
Contact of the authors:	Mobile: +351 96 500 75 90; E-mail: jsilvestre@aecycle.pt
Issue date:	08/10/2026
Registration date:	02/11/2026
Registration number:	DAP 038:2026
Valid until:	07/10/2031
Representativity of the EPD (location, manufacturer, group of manufacturers):	EPD from cradle to gate with options (end-of-life), covering seventeen (17) products (Biotherm, Biotherm RET, Termo, Termo RET, Termoetics® 2.0, and Traditional Brick ranges), produced in a single (1) industrial plant (Cabeça-Gorda), operated by a single (1) manufacturer (COS - Cerâmica Outeiro do Seixo).
EPD Boundaries:	EPD from cradle to gate with options (A1–A3, C, D).
Type of EPD:	Average EPD for multiple products.
Geographical representation:	Industrial plant at Cabeça-Gorda, Campelos, Torres Vedras.

1.4. Verification demonstration

External independent verification, accordingly, with the standard ISO 14025:2010 and EN 15804:2012+A2:2019

Certification Body	Verifier
	
(CERTIF – Associação para a Certificação)	(Marisa Almeida)

1.5. EPD registration

Programme operator



(Associação Plataforma para a Construção Sustentável)

1.6. PCR (Product Category Rules) basic model

Name:	RCP de modelo base para produtos e serviços de construção
Issue date:	February 2026
Number of registrations on the database:	RCP-mb001
Version:	Versão 3.1.1
Identification and contact of the coordinator(s):	Marisa Almeida | marisa@ctcv.pt Luís Arroja | arroja@ua.pt José Dinis Silvestre | jose.silvestre@ist.utl.pt
Identification and contact of the authors:	Marisa Almeida | marisa@ctcv.pt Luís Arroja | arroja@ua.pt José Silvestre | jds@civil.ist.utl.pt Fausto Freire Cristina Rocha Ana Paula Duarte Ana Cláudia Dias Helena Gervásio Victor Ferreira Ricardo Mateus António Baio Dias Ana Karolina Santos
Composition of the Sectorial Panel:	-
Consultation period:	18/11/2015 - 18/01/2016
Valid until:	01/06/2027

CEN standard EN 15804 serves as the core Product Category Rules (PCR).

1.7. C-PCR (Complementary Product Category Rules)

Name:	RCP – Unidades de alvenaria – V.2.2
Issue date:	junho de 2022

Number of registrations on the database:	RCP006
Version:	Versão 2.2
Identification and contact of the coordinator(s):	Baio Dias | baiodias@ctcv.pt Luís Arroja | arroja@ua.pt
Identification and contact of the authors:	Marisa Almeida | marisa@ctcv.pt Baio Dias | baiodias@ctcv.pt Luís Arroja | arroja@ua.pt
Composition of the Sectorial Panel:	APICER – Associação Portuguesa da Indústria de Cerâmica Artebel, S.A – Soluções construtivas em betão ANIPB – Associação Nacional dos Industriais de Prefabricação em Betão Argex – Argila Expandida, S.A
Consultation period:	11/06/2014 a 30/06/2014
Valid until:	01/06/2027

1.8. Information concerning the produc/product class

Identification of the product:	Ceramic blocks/bricks with the following references: - Horizontal hollows: - Termoetics® 2.0 - 24; - Tradicional brick 3, 7, 9, 11, 15 and 22; - Vertical hollows: - Biotherm 14, 20 and 25; - Biotherm RET (rectified) 14, 20 and 25 (illustrated in the cover of this EPD); - Termo 14, 19 and 24; - Termo 40x25; - Termo RET (rectified) 14, 19 e 24; - Termo RET (rectified) 40x25.
Illustration of the product:	

Brief description of the product:

Ceramic blocks/bricks P made of fired clay with vertical hollows (Category I) or horizontal hollows (Category II), intended for use in the construction of single-leaf or double-leaves masonry walls protected with plaster or cladding, load-bearing and non-load-bearing and subject to passive exposure, complying with thermal, acoustic, and fire resistance requirements.

The **sizes** of these products are as follows (measurements in cm; length × height × width):

- Horizontal hollows:
  - Termoetics® 2.0 – 24: 30×19×24;
  - Traditional brick 3 – 30×20×3, 7 – 30×20×7, 9 – 30×20×9, 11 – 30×20×11, 15 – 30×20×15, and 22 – 30×20×22;
- Vertical hollows:
  - -Biotherm 14 – 40×19×14, 20 – 40×19×20, and 25 – 40×19×25;
  - Biotherm RET (rectified) 14 – 40×19×14, 20 – 40×19×20, and 25 – 40×19×25 (illustrated on the cover of this document);
  - Termo 14 – 30×19×14, 19 – 30×19×19, 24 – 30×19×24 (illustrated in the previous section) and 25- 40x19x25;
  - Termo RET (rectified) – 14 – 30x19x14, 19 – 30x19x19, 24- 30x19x24 and 25- 40x19x25.

The **application** of these products follows traditional methods, using masonry mortar, except for the Biotherm RET and Termo RET ranges: these products are laid with horizontal joints made of adhesive cement or polyurethane foam. Instructional videos for these application methods are available at: https://outeiroseixo.pt/videos/CosBiotehrm.mp4 and https://outeiroseixo.pt/videos/COSTUT.mp4.

Main technical characteristics of the product:

The characteristics of these products are provided in their respective Declarations of Performance, available at https://www.outeiroseixo.pt/produtos, together with the technical data sheets and BIM objects for each product. As an example, the following table presents the characteristics of the Biotherm 25 and Termo 24 bricks:

Essential characteristics	Performance		Harmonised technical specifications
	Biotherm 25	Termo 24	
Dimensional tolerances	T1		EN 771-1:2011+A1:2015
Gross dry density: value; category	830 kg/m^3; D1	864 kg/m^3; D1	
Compressive strength: value; category	10,1 N/mm^2; I	13,0 N/mm^2; I	
Active soluble salts: value; category	DND; S0		
Reaction to fire	ClasseA1		Decision 2000/605/CE
Thermal resistance	1,60 m^2.K/W	1,16 m^2.K/W	
Water vapour permeability (diffusion coefficient)	5/10		EN 771-1:2011+A1:2015
Acoustic insulation (dB)	DND		
Durability – Freeze/thaw resistance	DND – F0		
Dangerous substances	DND		

Description of the product's application/use:

Products intended for the construction of single or double masonry walls protected with plaster or cladding, non-load-bearing and subject to passive exposure, complying with thermal, acoustic, and fire resistance requirements.

Packaging information:

Average packaging mass of the products per declared unit:

- PET strapping: 0.15 g/kg;
- PP strapping: 0.03 g/kg;
- LDPE film: 0.03 g/kg;
- Wooden pallet: 1.77 g/kg.

Placing on the market / Rules

Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011, as amended.

EN 771-1:2011+A1:2016 Specifications for masonry units – Part 1: Clay masonry units (clay bricks).

of application in the market / Technical rules of the product:	
Quality control	Cerâmica Outeiro do Seixo, S.A. ensures that its products are subject to strict production quality control, carrying out tests on raw materials, products under manufacture, and finished products, with a constant commitment to continuous improvement.
Special delivery conditions:	Not appliable.
Components and substances to declare:	Only inert raw materials are used in the manufacture of these products, namely clay, sand, and water. As such, these products do not contain any substances listed in the "List of Substances of Very High Concern (SVHC) subject to authorisation when their content exceeds the registration thresholds established by the European Chemicals Agency (ECHA) (concentration above 0.1% by mass (m/m))".
Where explanatory material may be obtained:	The characteristics of these products are provided in their respective Declarations of Performance, available at https://www.outeiroseixo.pt/produtos, together with the technical data sheets and BIM objects for each product.
History of the LCA studies:	Not appliable.

1.9. Calculation rules of the LCA

Declared unit:	1 kg of fired clay ceramic bricks P with vertical or horizontal hollows, including packaging.
System boundaries:	EPD from cradle to gate with options (A1–A3, C, D).
Criteria for the exclusion:	In accordance with paragraph 6.3.5 of EN 15804, the exclusion criterion for unit processes is 1% of the total energy consumption and 1% of the total input mass, ensuring that the total excluded energy and mass flows do not exceed 5% during the product stage. The following cases were not considered in this study, as they fall within the exclusion criteria: - Environmental loads associated with the construction of industrial infrastructure and the manufacture of machinery and equipment; - Environmental loads related to transportation infrastructure (production and maintenance of vehicles and roads) used for the transport of pre-products; - Water consumption, wastewater production and treatment, and waste management from administrative areas; - Energy used for transporting small consumables and personnel; - The consumption of lubricating greases. All known input and output flows were considered.
Assumption and limitations:	The data collected and the environmental impact results and other indicators presented in this EPD refer to the year 2024.
Quality and other characteristics about the information used in the LCA:	The specific data used were collected based on the year 2024 and correspond to the industrial unit of COS – Cerâmica Outeiro do Seixo, located in Cabeça Gorda. Data modelling was based on validated mass balances and production time records. For processes over which the manufacturer has no direct control or specific information, generic data were obtained from the Ecoinvent 3.6 database. The electricity mix considered corresponds to the year 2019, based on Ecoinvent 3.6 data. Greenhouse Gas (GHG) emissions from electricity are 0.384 kg CO_2/kWh.
Allocation rules:	The average product composition was calculated considering the representativeness of each product in the annual production of the industrial unit. No significant changes in consumption profiles or product composition are expected.

	Allocation for other flows (energy, fuels, waste, packaging materials, etc.) was calculated based on the mass of each product.
Software used for the assessment:	SimaPro Analyst, Release 9.6.0.1
Background database used for the LCA:	Ecoinvent 3.6, 2019, *Cut-off by classification*
Comparability of EPD for construction products:	The EPD of construction products and services cannot be comparable in case they are not produced according to EN 15804 and EN 15942 and according to the comparability conditions determined by ISO 14025.

1.10. Use of the average environmental performance

The average environmental performance of seventeen (23) products (Termoetics® 2.0, Traditional brick ranges, Biotherm, Biotherm RET, Termo and Termo RET) produced in a single (1) industrial unit (Cabeça-Gorda), operated by one (1) manufacturer (COS – Cerâmica Outeiro do Seixo), was considered. However, the variability of the Life Cycle Impact Assessment (LCIA) results per declared unit does not exceed 10%.

The following table presents the total Global Warming Potential (GWP-total) of the ceramic bricks required for the construction of one (1) m^2 of wall using each product, considering the average environmental performance (2.49E-01 kg CO_2 eq./kg).

Bricks with horizontal hollows

Product	GWP-total/m^2 (kg CO_2 eq.)
Termoetics® 2.0 – 24	4,16E+01
Traditional brick 3	9,15E+00
Traditional brick 7	1,41E+01
Traditional brick 9	1,58E+01

Product	GWP-total/m^2 (kg CO_2 eq.)
Traditional brick 11	1,83E+01
Traditional brick 15	2,33E+01
Traditional brick 22	3,45E+01

Bricks with vertical hollows

Product	GWP-total/m^2 (kg CO_2 eq.)
Biotherm 14	2,61E+01
Biotherm 20	3,74E+01
Biotherm 25	4,51E+01
Biotherm RET 14	2,85E+01
Biotherm RET 20	4,05E+01
Biotherm RET 25	4,79E+01
Termo 14	3,05E+01

Product	GWP-total/m^2 (kg CO_2 eq.)
Termo 19	3,94E+01
Termo 24	4,66E+01
Termo 25 - 40x19x25	4,20E+01
Termo RET 14	3,09E+01
Termo RET 19	4,14E+01
Termo RET 24	5,14E+01
Termo RET 25 – 40x19x25	4,27E+01

1.11. Technical information for Reference Service Life (RSL)

Not applicable. However, it is estimated that the products included in this EPD have a service life of no less than 150 years.

1.12. Flow diagram of input and output of the process

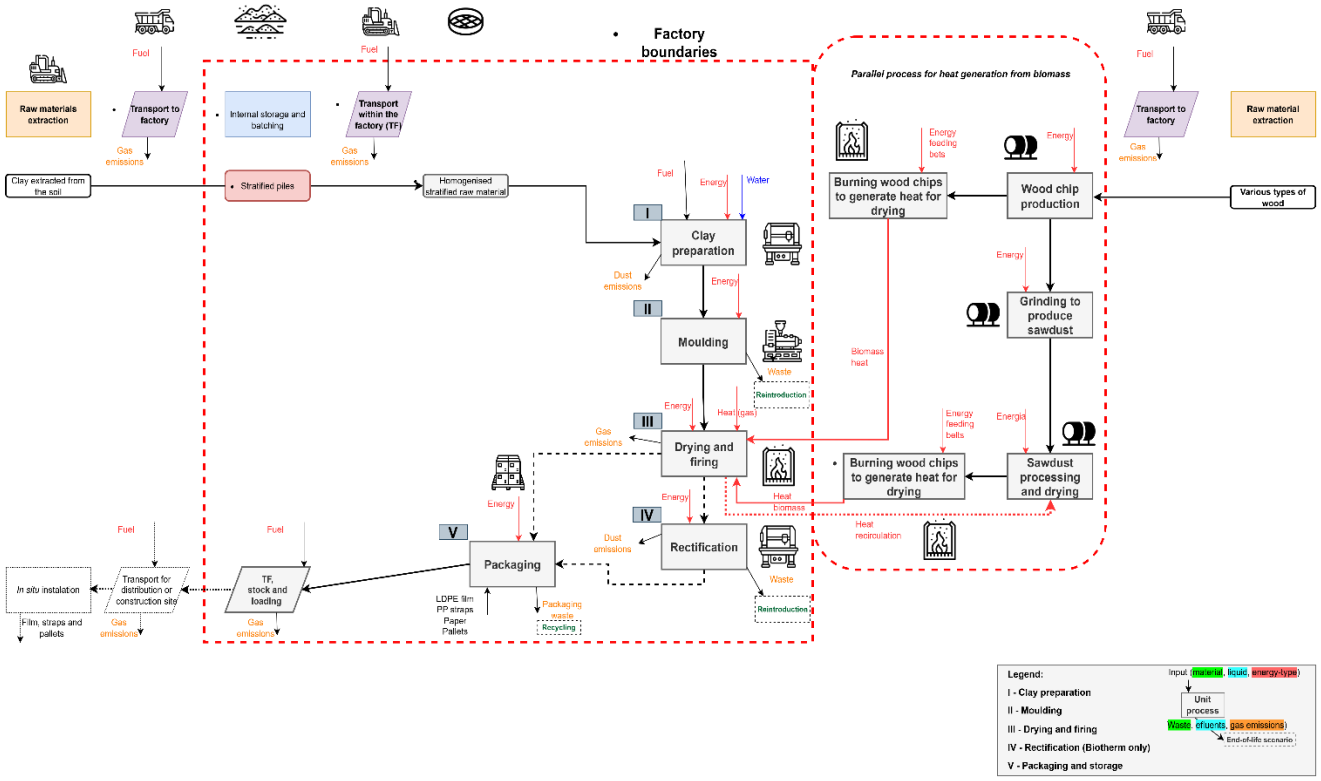


Figure 1: Industrial production stage of the products included in this EPD.

2. CORE ENVIRONMENTAL IMPACT INDICATORS

2.1. Description of the system boundaries

(✓= included; ND = module not declared)

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARY
Raw material supply	Transport	Manufacturing	Transport	Construction installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction and demolition	Transport	Waste processing	Disposal	Reuse, recovery, potential recycling
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
✓	✓	✓	ND	ND	ND	ND	ND	ND	ND	ND	ND	✓	✓	✓	✓	✓

The industrial manufacturing process of these products begins with the reception of raw materials (clay and sand) and the preparation of the mixture, which includes the grinding of the clay and the addition of water for product moulding. This is followed by extrusion moulding, after which the ceramic bricks are dried, fired, and packaged for use in residential, service, and industrial construction.

2.1.1. Justification for the exemption to declare modules C and D

Not applicable.

2.2. Core environmental impact indicators

	Global warming potential - total;	Global warming potential fossil;	Global warming potential - biogenic;	Global warming potential land use and land use change;	Depletion potential of the stratospheric ozone layer;	Acidification potential;
	GWP-total	GWP-fossil	GWP-biogenic	GWP-luluc	ODP	AP
Unit	kg CO_2 eq.	kg CO_2 eq.	kg CO_2 eq.	kg CO_2 eq.	kg CFC 11 eq.	mol H^+ eq.
Modules A1-A3	2,49E-01	3,74E-02	2,11E-01	1,95E-04	4,36E-10	2,93E-04
Module C1	2,93E-04	2,61E-04	2,64E-05	4,94E-06	7,98E-12	9,34E-07
Module C2	1,66E-02	1,65E-02	3,84E-05	5,27E-06	3,66E-10	6,44E-05
Module C3	2,17E-04	2,01E-04	1,52E-05	5,30E-07	3,11E-12	9,50E-07
Module C4	1,64E-03	1,64E-03	2,98E-06	8,97E-07	4,57E-11	1,08E-05
Module D	-7,68E-03	-7,63E-03	-4,64E-05	-7,15E-06	-6,33E-11	-4,63E-05

LEGEND:

Product stage

End of life stage

Benefits and loads beyond the system boundary

NOTE: Units expressed by declared unit (1 kg).

	Eutrophication potential aquatic freshwater;	Eutrophication potential aquatic marine;	Eutrophication potential terrestrial;	Formation potential of tropospheric ozone;	Abiotic depletion potential for non-fossil resources;	Abiotic depletion potential for fossil resources potential;	Water (user) deprivation potential;
	EP-freshwater	EP-marine	EP-terrestrial	POCP	ADP-minerals&metals	ADP-fossil	WDP
Unit	kg P eq.	kg N eq.	mol N eq.	Kg COVNM eq.	kg Sb eq.	MJ, P.C.I	m^3 eq. of water gloabally unavailable
Modules A1-A3	1,71E-07	1,17E-04	1,29E-03	3,41E-04	6,51E-08	1,79E-01	2,77E-02
Module C1	2,08E-09	1,61E-07	1,86E-06	7,31E-07	6,89E-10	1,14E-03	1,47E-04
Module C2	1,21E-07	2,47E-05	2,71E-04	9,87E-05	5,51E-08	1,78E-02	8,37E-04
Module C3	1,94E-08	1,32E-07	1,49E-06	4,79E-07	4,53E-10	2,97E-03	3,72E-05
Module C4	1,55E-08	4,25E-06	4,65E-05	1,68E-05	2,33E-09	2,40E-03	1,66E-03
Module D	-2,79E-07	-1,06E-05	-1,34E-04	-3,68E-05	-4,38E-08	-5,06E-02	-1,09E-02

LEGEND:

Product stage

End of life stage

Benefits and loads beyond the system boundary

NOTES: Units expressed by declared unit (1 kg).

The results obtained for the indicators “Abiotic depletion potential for non-fossil resources (ADP-minerals&metals)”, “Abiotic depletion potential for fossil resources potential (ADP-fossil)” and “Water (user) deprivation potential (WDP)” should be used with caution since the uncertainties associated with them are high or there is little experience with the indicator.

2.3. Additional environmental impact indicators

	Potential incidence of disease due to PM emissions	Potential Human exposure efficiency relative to U235	Potential Comparative Toxic Unit for ecosystems	Potential Comparative Toxic Unit for humans, cancer effects	Potential Comparative Toxic Unit for humans, not cancer effects	Potential soil quality index
	PM	IRP	ETP-fw	HTP-c	HTP-nc	SQP
Unit	incidence of disease	kBq U 235 eq.	CTUe	CTUh	CTUh	-
Modules A1-A3	1,29E-08	7,73E-04	4,31E-02	3,96E-12	3,04E-09	1,76E+00
Module C1	5,96E-12	2,04E-05	5,57E-04	5,17E-14	1,48E-12	1,33E-03
Module C2	1,07E-09	9,78E-05	5,55E-02	2,62E-12	1,77E-10	1,36E-01
Module C3	3,63E-12	3,51E-05	2,55E-03	5,16E-14	3,25E-12	6,33E-04
Module C4	2,46E-10	9,01E-06	6,90E-03	2,72E-13	1,51E-11	7,54E-02
Module D	-6,77E-10	-2,68E-04	-5,18E-02	-1,87E-12	-1,16E-10	-8,47E-02

LEGEND:

Product stage

End of life stage

Benefits and loads beyond the system boundary

NOTES: Units expressed by declared unit (1 kg).

The impact indicator "POTENTIAL HUMAN EXPOSURE EFFICIENCY RELATIVE TO U235" focuses mainly on the possible impact of a low dose of ionising radiation on human health resulting from the nuclear fuel cycle. It does not consider effects arising from possible nuclear accidents, occupational exposure or the disposal of radioactive waste in underground facilities. Potential ionising radiation from soil, radon and some building materials is also not measured by this indicator.

The results of the indicators "POTENTIAL COMPARATIVE TOXIC UNIT FOR ECOSYSTEMS (ETP-FW)", "POTENTIAL COMPARATIVE TOXIC UNIT FOR HUMANS, CANCER EFFECTS", "POTENTIAL COMPARATIVE TOXIC UNIT FOR HUMANS, NOT CANCER EFFECTS" and "POTENTIAL SOIL QUALITY INDEX" should be used with caution as the uncertainties associated with them are high or there is little experience with the indicator.

2.4. Indicators describing resource use

	Primary energy					
	EPR	RR	TRR	EPNR	RNR	TRNR
Unit	MJ, P.C.I.	MJ, P.C.I.	MJ, P.C.I.	MJ, P.C.I.	MJ, P.C.I.	MJ, P.C.I.
Modules A1-A3	4,05E-01	2,62E-02	4,32E-01	3,77E-01	8,81E-03	3,86E-01
Module C1	2,53E-03	0,00E+00	2,53E-03	4,69E-03	0,00E+00	4,69E-03
Module C2	3,64E-03	0,00E+00	3,64E-03	2,28E-01	0,00E+00	2,28E-01
Module C3	9,35E-04	0,00E+00	9,35E-04	4,17E-03	0,00E+00	4,17E-03
Module C4	3,42E-04	0,00E+00	3,42E-04	3,82E-02	0,00E+00	3,82E-02
Module D	-8,96E-03	0,00E+00	-8,96E-03	-9,36E-02	0,00E+00	-9,36E-02

LEGEND:

Product stage

End of life stage

Benefits and loads beyond the system boundary

EPR = use of renewable primary energy excluding renewable primary energy resources used as raw materials; RR = use of renewable primary energy resources used as raw materials; TRR = total use of renewable primary energy resources (EPR + RR); EPNR = use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; RNR = use of non-renewable primary energy resources used as raw materials; TRNR = total use of non-renewable primary energy resources (EPRN + RNR);

NOTES: Units expressed by declared unit (1 kg).

P.C.I. – Lower Heating Value.

	Secondary materials and fuels, and use of water			
	MS	CSR	CSNR	Net use of fresh water
Unit	kg	MJ, P.C.I.	MJ, P.C.I.	m^3
Modules A1-A3	0,00E+00	2,86E+00	0,00E+00	6,22E-04
Module C1	0,00E+00	0,00E+00	0,00E+00	2,82E-06
Module C2	0,00E+00	0,00E+00	0,00E+00	2,79E-05
Module C3	0,00E+00	0,00E+00	0,00E+00	2,47E-06
Module C4	0,00E+00	0,00E+00	0,00E+00	3,96E-05
Module D	0,00E+00	0,00E+00	0,00E+00	-2,64E-04

LEGEND:

Product stage

End of life stage

Benefits and loads beyond the system boundary

MS = use of secondary material; CSR = use of renewable secondary fuels; CSNR = use of non-renewable secondary fuels.

NOTES: Units expressed by declared unit (1 kg). P.C.I. – Lower Heating Value.

2.5. Other environmental information describing different waste categories

	Hazardous waste disposed	Non-hazardous waste disposed	Radioactive waste disposed
Unit	kg	kg	kg
Modules A1-A3	2,81E-06	2,36E-03	4,96E-07
Module C1	2,21E-08	1,53E-07	1,32E-08
Module C2	1,56E-06	5,78E-06	6,31E-08
Module C3	1,03E-08	1,44E-07	2,69E-08
Module C4	2,42E-07	5,59E-07	5,20E-09
Module D	-4,74E-07	-2,01E-05	-1,70E-07

LEGEND:

Product stage

End of life stage

Benefits and loads beyond the system boundary

NOTES: Units expressed by declared unit (1 kg).

The characteristics that classify waste as hazardous are defined in the applicable legislation in force, for example, in the European Waste Framework Directive.

2.6. Environmental information describing output flows

	Components for re-use	Materials for recycling	Materials for energy recovery	Exported energy
				Energy carrier
Unit	kg	kg	kg	MJ
Modules A1-A3	0,00E+00	1,24E-07	2,87E-05	0,00E+00
Module C1	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Module C2	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Module C3	0,00E+00	7,50E-01	0,00E+00	0,00E+00
Module C4	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Module D	0,00E+00	0,00E+00	0,00E+00	0,00E+00

LEGEND:

Product stage

End of life stage

Benefits and loads beyond the system boundary

NOTES: Units expressed by declared unit (1 kg).

The characteristics that classify waste as hazardous are defined in the applicable legislation in force, for example, in the European Waste Framework Directive.

2.7. Information describing the biogenic carbon content at the factory gate

Biogenic carbon content*	Units**	Modules A1-A3 (results)
Biogenic carbon content in product	Kg C	Not appliable
Biogenic carbon content in accompanying packaging	Kg C	0,00089

* 1 kg biogenic carbon is equivalent to 44/12 kg of CO_2.

** This information can be omitted whenever the content of biogenic carbon in the product, or in the respective packaging, is less than 5% of the mass of the product, or the respective packaging.

3. SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

3.1. Modulo C1 - Demolition – End-of-Life Stage

Parameter	Units/comments	Results expressed declared unit
Scenario	Name and description of the scenario	Scenario C1 – Demolition of a wall by diamond disc saw cutting: for the demolition of a wall measuring 5 metres in length, 3 metres in height, and 15 cm in thickness (2.25 m^3), involving three linear cuts (a total of 11 m), approximately 50 minutes of saw operation with a power rating of 2 kW are estimated, resulting in an electricity consumption of 1.7 kWh. Considering that bricks with a thickness of 15 cm have a density of 725 kg/m^3, this corresponds to an energy consumption of 0.001 kWh/kg of brick.
Related scenario	Name of the scenarios linked to this scenario	Scenario C2
Separately collected material	kg	0
Material collected and mixed with construction waste	kg	1
Final considerations	Units as appropriate	-

3.2. Modulo C2 - Transportation – End-of-Life Stage

Parameter	Units/comments	Results expressed declared unit
Scenario	Name and description of the scenario	Scenario C2 – Transport of waste bricks from the demolition site to the processing facility.
Related scenario	Name of the scenarios linked to this scenario	Scenarios C1, C3, and C4
Fuel type, fuel consumption, type of vehicle used for transport (e.g. long-distance lorry, boat, etc.)	Litro de tipo de combustível por distância ou tipo de veículo **	Ecoinvent 3 process: “Transport, freight, lorry 16–32 metric ton, EURO4 {RER} | transport, freight, lorry 16–32 metric ton, EURO4 | CUT-OFF, S”
Distance	km	Average transport distance of 50 km.
Container capacity (including return journey without cargo)	% (payload)	100% of the return trip is considered to occur with the vehicle empty.
Density of transported products	kg/m^3	Average of 725.
Volume capacity factor (factor = 1 or < 1 or >1 for compressed or packaged products)	Not applicable	NA
Final considerations	Units as appropriate	-

3.3. Module C3 - Waste processing for reuse, recovery, and recycling – End-of-Life Stage

Parameter	Units/comments	Results expressed declared unit
Scenario	Name and description of the scenario	Scenario C3 – Waste processing for recycling (75%): Ecoinvent 3 process "Rock crushing {RER} | processing | CUT-OFF, S"
Related scenario	Name of the scenarios linked to this scenario	Scenarios C2 and D
Material for reuse	kg	-
Material for recycling	kg	0.95
Material for energy recovery	kg	-
Final considerations	Units as appropriate	-

3.4. Module C4 - Waste disposal – End-of-Life Stage

Parameter	Units/comments	Results expressed per functional or declared unit
Scenario	Name and description of the scenario	Scenario C4 – Waste processing for landfill disposal (25%): Ecoinvent 3 process "Waste concrete {Europe without Switzerland} | treatment of waste concrete, inert material landfill | CUT-OFF, S"
Related scenario	Name of the scenarios linked to this scenario	Scenario C2
Material for final disposal	kg	0.05
Final considerations	Units as appropriate	-

3.5. Scenarios and technical information for module D

Parameter	Units/comments	Results expressed per functional or declared unit
Scenario	Name and description of the scenario	Scenario D – Recycling benefit from stage C3 for 75% of the waste suitable for such processes.
Related scenario	Name of the scenarios linked to this scenario	Scenario C3
Net outflow specified by material	Units as appropriate	0.75
Avoided production	Units as appropriate	0.75 of aggregates used for road sub-base: Ecoinvent 3 process "Gravel, crushed, washed {RoW} | production | CUT-OFF, S"
End-of-waste status location	Not applicable	-
Functional equivalence point	Not applicable	-
Final considerations	Units as appropriate	-

3.6. Additional environmental information regarding recycled content

Approximately 6% of the weight of these products corresponds to raw material that is discarded during the forming stage (dust/powders and brick wastage) and that is internally recirculated, being reincorporated during the clay preparation phase, thus constituting internally recycled content.

3.7. Additional environmental information regarding the release of hazardous substances into air, soil, and water during the use stage

These products use only inert raw materials in their manufacture and therefore do not release harmful substances into the environment throughout their entire life cycle.

4. REFERENCES

✓ Guidelines ECO Platform. 2026.

✓ EN 15804:2012+A2:2019/AC:2021 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.

✓ EN 15942:2021 Sustainability of construction works – Environmental product declarations – Communication format business-to-business.

✓ *Instruções Gerais do Sistema DAPHabitat, Versão 3.1.1, fevereiro de 2026 (em www.daphabitat.pt).*

✓ ISO 14025:2009 Environmental labels and declarations - Type III environmental declarations - Principles and procedures.

✓ *RCP – modelo base para produtos e serviços de construção. Sistema DAPHabitat. Versão 3.1.1, fevereiro de 2026 (em www.daphabitat.pt).*

✓ *RCP – unidades de alvenaria. Sistema DAPHabitat. Versão 2.2, junho de 2022 (em www.daphabitat.pt).*