ENVIRONMENTAL PRODUCT DECLARATION

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for

Vertex Mesh R131 A101

from: Saint-Gobain ADFORS CZ, s.r.o

Version 1
Publication date: 2025-06-20
Validity: 5 years
Valid until: 2030-06-19

Scope of the EPD®: Europe

Programme: The International EPD® System, www.environdec.com

Programme operator: EPD International AB

Production plant: Saint-Gobain ADFORS CZ, s.r.o; Sokolovská 106; 570 01 Litomyšl; The Czech Republic

Registration number
The International EPD® System:
EPD-IES-0022804:001

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com

General information

Company information

Manufacturer: Saint-Gobain ADFORS CZ, s.r.o – Sokolovská 106; 570 01 Litomyšl; The Czech Republic. https://eu.adfors.com/

Production plant: Sokolovská 106; 570 01 Litomyšl; The Czech Republic

Framework: The LCA is based on 2024 production data for one site in Litomyšl; The Czech Republic.

Geographical scope : Europe

UN CPC CODE: 54790 Other building completion and finishing services

Owner of the declaration: Saint-Gobain ADFORS CZ, s.r.o

Product name and manufacturer represented: Vertex Mesh R131 A101. Saint-Gobain ADFORS CZ, s.r.o

This EPD covers cradle to gate with options module C1-C4 and module D and optional modules A4-A5 and B1-B7 as defined in EN 15804:2012+A2:2019/AC:2021

EPD® prepared by: Lucie Waniausova (Saint-Gobain ADFORS CZ, s.r.o., (lucie.waniausova@saint-gobain.com) & William Guerin (Saint-Gobain ADFORS central team, william.guerin@saint-gobain.com)

The intended use of this EPD is for B2B communication.

EPD® registration number: EPD-IES-0022804

Declaration issued: 2025-06-20, **valid until:** 2030-06-19

Demonstration of verification: an independent verification of the declaration was made, according to EN ISO 14025:2006. This verification was external and conducted by a third party, based on the PCR mentioned below.

Programme	The international EPD® System		
Adress:	EPD© International AB Box 210 60 SE-100 31 Stockholm Sweden		
Website:	www.environdec.com	**E-mail:**	info@environdec.com

CEN standard EN 15804:2012 + A2:2019/AC:2021 serves as the Core Product Category Rules (PCR)
Product category rules (PCR): PCR 2019:14 Construction Products, version 1.3.4
PCR review was conducted by: "PCR review was conducted by: The Technical Committee of the International EPD System. See www.environdec.com for a list of members. Review chair: Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact".
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ EPD verification by individual verifier
LCA Accountability: William Guerin – Saint-Gobain ADFORS
Third party verifier : Marcel Gomez Marcel Gómez Consultoria Ambiental Tlf 0034 630 64 35 93 - info@marcelgomez.com Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third part verifier: ☐ Yes ☒ No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

Product Information

Product information and description of use

Vertex® Mesh for ETICS (External Thermal Insulation Composite System) is a reinforcing fiberglass mesh used in building construction for external wall applications. The reinforcement mesh has a high tensile strength and low elongation to prevent the formation of cracks, and an alkali-resistant coating to protect the wall mesh while the render dries. The mesh is produced from glass fiber known for its stable fabric quality, and the fiberglass render mesh is also easy to cut and apply, making it the ideal solution for external reinforcement.

ADFORS Vertex® is CE certified according to ETA-13/0392.

The product is sold in rolls. The width of each roll is 100 cm (± 1%), the length is 50 m (± 1%), each roll is packed in a cardboard box and protected by a plastic film made of low-density polyethylene (LDPE).

Technical characteristics for product Vertex Mesh R131

Basic parameters	Unit	Performance	Technical specification
Mass per unit area	g/m²	163 ± 5%	EAD 040016-01-0404
Mesh opening warp/weft	mm	(3,5/3,8) ± 0,5	
Thickness	mm	0,55 ± 0,1	

Tensile strength and elongation	Unit	Performance	Technical specification
Tensile strength in the 'as-delivered' state warp/weft	N/50mm	min 1900/min 1900	EAD 040016-01-0404
Average tensile strength in the 'as-delivered' state warp/weft	N/50mm	min 2200/min 2200	
Elongation in the 'as-delivered' state	%	max 5/max 5	
Tensile strength after 28 days alkali conditioning warp/weft	N/50mm %	min 1000/min 1000 min 50/min 50	
Average tensile strength after 28 days alkali conditioning warp/weft	N/50mm	min 1400/min 1400	
Elongation after 28 days alkali conditioning warp/weft	%	max 3,8/max 3,8	

Declaration of the main product components and/or materials within Vertex Mesh R131

Description of the main components and/or materials for 1 m² of Vertex Mesh R131:

Product components	Weight (%)	Post-consumer recycled material (Weight %)	Biogenic Material (Weight % and kgC/kg)
Glass Fiber	75 - 85	0	0 resp. 0
Coating	15 - 25	0	22,7% resp. 0,41
Product	**Weight (kg/m²)**		
Vertex Mesh R131	**0,163**	**0**	**4,5% resp. 0,41**
Packaging materials	**Weight (kg/m²)**	**Weight%**	**Weight Biogenic carbon (kg C/kg)**
Low-density polyethylene (LDPE)	4,44E-04	0,27%	0
Polyethylene Terephtalate (PET)	1,80E-05	0,01%	0
Cardboard	6,00E-03	3,69%	0,45
Paper	1,30E-03	0,77%	0,43
Wooden Pallet	1,30E-02	7,97%	0,41

At the date of issue of this declaration, there is no “Substance of Very High Concern” (SVHC) in concentration above 0,1% by weight, and neither do their packaging, following the European REACH regulation (Registration, Evaluation, Authorization and Restriction of Chemicals).

The verifier and the program operator do not make any claim nor have any responsibility of the legality of the product.

LCA calculation information

EPD scope	Cradle to gate with options, modules C1-C4, module D and optional modules A4-A5 and B1-B7
Declared Unit	1 m² of Vertex Mesh R131 (0,163 kg/m²) installed and with an estimated useful life of 50 years
System boundaries	Cradle to gate with options (A+B+C+D)
Service life (SL)	The Service Life (SL) of the Vertex Mesh product is 50 years. This value is the one commonly used in the industry. However, the service life of the product may be less than its design life if the ETICS system is damaged or modified
Cut-off rules	The LCI data shall include, in accordance with EN 15804:2012+A2:2019/AC:2021 and the extended cut-off rule of ISO 21930, which this PCR is following: a minimum of 95% of the total input flows (mass and energy) per module (e.g. A1-A3, A4-A5, B1-B5, B6-B7, C1-C4 and module D). Plausibility assessments and expert judgement may be used to demonstrate compliance with these criteria. The process energy and materials representing less than 1% of the whole energy and mass used can be excluded (if they do not cause significant impacts).
Allocations	Allocation has been avoided when possible and when not possible a mass allocation has been applied. The polluter pays and modularity principles have been followed.
Geographical coverage and period	Data included is collected from 1 production site in Litomyšl (The Czech Republic) Production year from 2024 Background data: Ecoinvent v3.10 (2024) and GaBi ts 2024

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

LCA scope

System boundaries (X=included. MND=module not declared)

	PRODUCT STAGE			CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM
	Raw material supply	Transport	Manufacturing	Transport	Construction-Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-recovery
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	EU27		CZ	EU27	EU27	EU27	EU27	EU27	EU27	EU27	EU27	EU27	EU27	EU27	EU27	EU27	EU27
Share of specific data	82%																
Variation products	0%																
Variation sites	0%																

A1-A3, Product stage

Description of the stage: the product stage of the Vertex Mesh R131 product is subdivided into 3 modules A1, A2 and A3 respectively “Raw materials supply”, “Transport to the manufacturer” and “Manufacturing”.

The aggregation of the modules A1, A2 and A3 is mandatory by the EN 15804:2012+A2:2019/AC:2021 standard. This rule is applied in this EPD.

Description of the scenarios and other additional technical information:

A1, Raw materials supply

This module considers the extraction and processing of all raw materials and energy which occur upstream to the studied manufacturing process. Specifically, the raw material supply covers production of glass fiber and coating components, and the packaging.

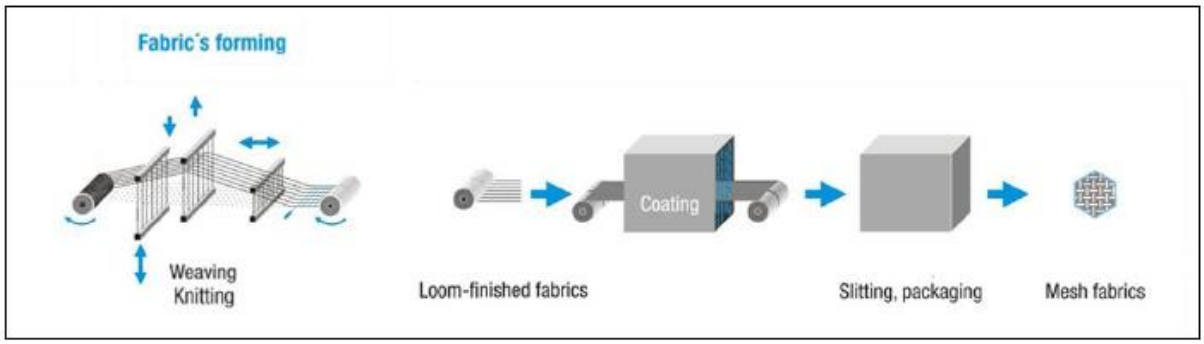
A2, Transport to the manufacturer

The raw materials are transported to the manufacturing site. In our case, the modeling includes road transportation (average values) of each raw material.

A3, Manufacturing

This module includes the manufacturing of the product. Specifically, it covers the manufacturing of Vertex Mesh R131.

To produce meshes, glass yarns are woven or knitted then the fabric can be winded on a tube to be coated later or passed under a binder applicator where liquid resin formulation will be applied. After application of the binder, the mesh then passes through an oven to be dried. The final product is then winded and packaged.



Vertex Mesh Production Process

Vertex Mesh products manufacturing is a complex product system with a range of input materials and variety of the product outputs. Mass based physical allocation was applied to split the environmental burden among the Vertex Mesh life cycle.

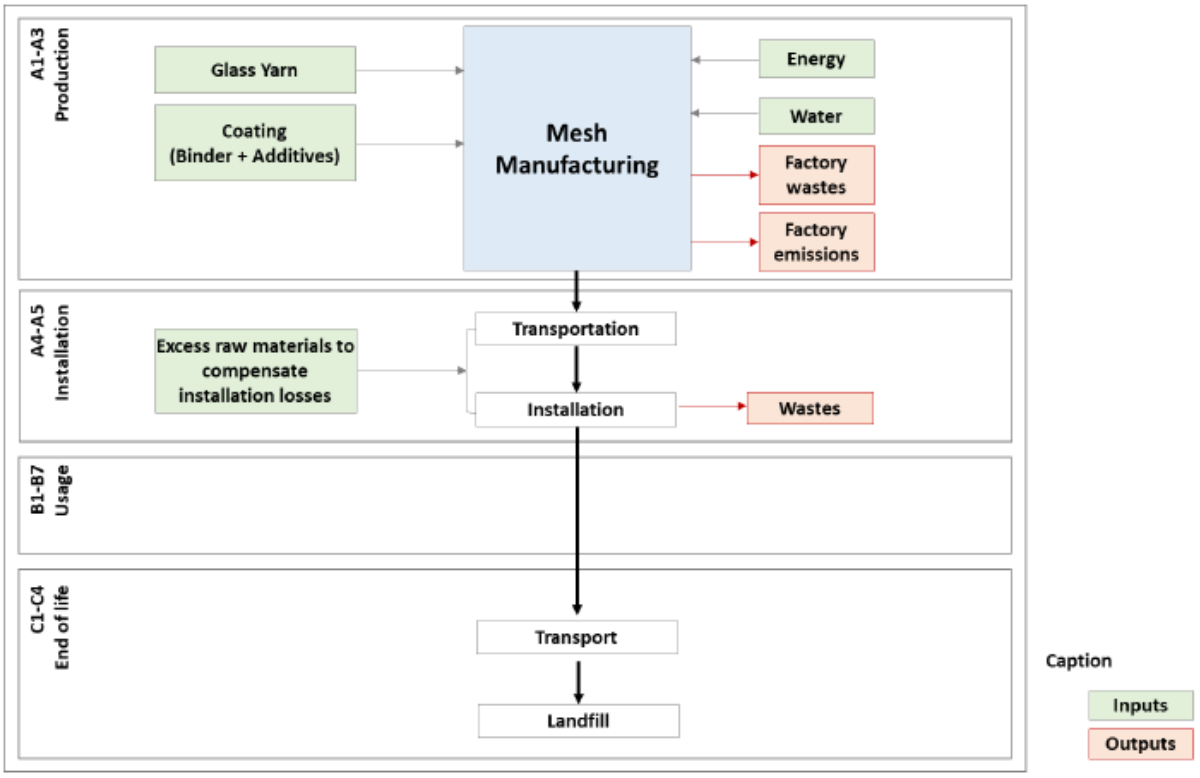
The EPD represents sales of product sold in Europe. The manufacturing site Litomyšl is based in The Czech Republic and used 100% of electricity from nuclear powerplant in 2024.

TYPE OF INFORMATION	DESCRIPTION
Location	Nuclear electricity purchased by Saint-Gobain ADFORS CZ, s.r.o
Reference year	2024
Type of data set	Cradle to gate from Sphera database Dataset: Electricity from nuclear powerplant (01/04/2024)
Source	Background data: Sphera database 2020: dataset valid until 2026
Emissions kg CO_2 eq. / kWh	0,005 kg CO2 eq. / kWh

This module also includes the emissions and wastes generated during manufacturing. Waste produce during manufacturing represents around 10,6% of total production in 2024.

Wastes leaving the plant are sent to landfill and are transported over 75 km.

Manufacturing process flow diagram



A4-A5, Construction process stage

Description of the stage: the construction process is divided into 2 modules: A4, transport to the customer site and A5, installation. Since there is a product loss during installation (5 %). The quantification of raw material compensation (A5) and its transport to the customer site (A4) are considered.

A4, Transport to the customer site: this module includes transport from the production gate to the customer site. Transport is calculated based on a scenario with the parameters described in the following table.

PARAMETER	VALUE
Fuel type and consumption of vehicle or vehicle type used for transport e.g., long distance truck, boat, etc.	Average truck trailer (27 t payload) with a real 24 t payload, diesel consumption 38 liters for 100 km
Distance	1060 km by truck. Average distance between production site and customer facilities
Capacity utilisation (including empty returns)	Use of GaBi data, default: 85% of mass capacity 30% empty returns
Bulk density of transported products	296 kg/m^3 (weight of 1m^2 of Vertex Mesh R131 / thickness in meter)
Volume capacity utilisation factor	Coefficient < 1

A5, Installation: this module includes:

Since the application of the reported product is done manually, no additional accessory or energy were considered for the installation phase of the product.

PARAMETER	VALUE/DESCRIPTION
Quantity of Vertex Mesh R131 for 1 m² of product	0,163 kg/m² (glassfiber + coating)
Thickness	0,55 mm
Auxiliary inputs for the installation	Manual installation, no accessory needed
Wastage of materials on the building site before waste processing, generated by the product's installation (specified by type)	5%
Distance	50 km to landfill by truck
Output materials (specified by type) as results of waste processing at the building site e.g., of collection for recycling, for energy recovering, disposal (specified by route)	Pallet is considered to be reused up to 7 times and when it reaches its end of life, according to the European website "eurostat" the recycling rate of pallets is 31% Wooden pallet recycled: 4,03E-03 kg/m2 - According to the European website "eurostat" cardboard and paper are: 80% recycled Cardboard recycled: 4,80E-03 kg/m2 Paper recycled: 1,04E-03 kg/m² The rest of the wastes (product and packaging) are sent to landfill: 5% waste of mesh during installation equivalent to 8,15 g/m2 Wooden Pallet 8,69E-03 kg/m² Cardboard 1,20E-03 kg/m² Paper 2,60E-04 kg/m2 Low density polyethylene film (LDPE) 4,40E-04 kg/m2 Polyethylene (PET) 1,80E-05 kg/m² The distances used for the landfill and recycling center are 50 km

B1-B7, Use stage (excluding potential savings)

Description of the stage: the use stage is divided into the following modules:

- B1: Use
- B2: Maintenance
- B3: Repair
- B4: Replacement
- B5: Refurbishment
- B6: Operational energy use
- B7: Operational water use

Description of the scenarios and additional technical information:

As no maintenance, repair, replacement, and refurbishment are required after use of Vertex Mesh R131 by customer, no impact has been accounted for in this phase.

C1-C4, End of Life Stage

Description of the stage: this stage includes the next modules:

C1, Deconstruction, demolition

The de-construction and/or dismantling of Vertex Mesh take part of the demolition of the entire ETICS system or building. In our case, the environmental impact allocated to Vertex Mesh is assumed to be very small and can be neglected.

C2, Transport to waste processing

The model use for the transportation (see A4, transportation to the customer site) is applied.

C3, Waste processing for reuse, recovery and/or recycling

The product is landfilled without reuse, recovery, or recycling.

C4, Disposal

The Vertex Mesh is assumed to be 100% landfilled.

End of life:

Parameter	Value/description
Collection process specified by type	The entire product is collected alongside any mixed construction waste 0,163 kg of Vertex Mesh R131 (collected with mixed construction wastes).
Recovery system specified by type	There is no known recovery, recycling, or reuse of the product once it has reached its end-of-life phase.
Disposal specified by type	The product alongside the mixed construction waste from demolishing will go to landfill 0,163 kg of Vertex Mesh R131 are landfilled.
Assumptions for scenario development (e.g. transportation)	The waste going to landfill will be transported by truck with 27 t payload, using diesel as a fuel consuming 38 liters per 100km Distance covered is assumed to be 50 km

D, Reuse/recovery/recycling potential

According to the figures reported in 2019 for Europe: 80% of cardboard packaging is recycled and the remaining 20% are sent to landfill. 31% of pallets are recycled and 69% are sent to landfill. The rest of the waste produced are landfilled. Hence, only recycling benefits for packaging are reported on stage D.

LCA results

As specified in EN 15804:2012+A2:2019/AC:2021 and the PCR 2019:14 Construction Products, version 1.3.4, the environmental impacts are declared and reported using the baseline characterization factors from the ILCD. Raw materials and energy consumption, as well as transport distances have been taken directly from the manufacturing plant (Production data according 2024). Characterisation factors EN15804 based on EF 3.1.

According to the EN 15804:2012+A2:2019/AC:2021 standard, the LCIA results are relative expressions translating impacts into environmental indicators (midpoint impact categories). Thus, the estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.

All the results refer to a Vertex Mesh R131 with a weight of 0,163 kg/m^2.

As stated in the PCR 1.3.4, module C being included in this EPD, it is advised to consider module C when comparing results from modules A1-A3.

Environmental Impacts

	Environmental indicators	Product stage	Construction stage		Use stage							End of life stage				Reuse, Recovery Recycling
		A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
	Climate Change [kg CO_2 eq.]	**1,89E-01**	**1,42E-02**	**4,00E-02**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6,12E-04**	**0**	**1,39E-02**	**-3,01E-03**
	Climate Change (fossil) [kg CO2 eq.]	**2,35E-01**	**1,40E-02**	**4,00E-03**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6,02E-04**	**0**	**3,00E-03**	**-3,00E-03**
	Climate Change (biogenic) [kg CO_2 eq.]	**-4,69E-02**	**0**	**3,60E-02**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,09E-02**	**0**
	Climate Change (land use change) [kg CO_2 eq.]	**2,44E-04**	**2,42E-04**	**1,77E-05**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,01E-05**	**0**	**1,52E-05**	**-1,19E-05**
	Ozone depletion [kg CFC-11 eq.]	**1,09E-08**	**1,45E-15**	**1,14E-10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6,07E-17**	**0**	**8,39E-15**	**-1,01E-10**
	Acidification [Mole of H+ eq.]	**5,96E-04**	**1,67E-05**	**1,03E-05**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6,98E-07**	**0**	**1,96E-05**	**-8,28E-06**
	Eutrophication aquatic freshwater [kg P eq.]	**1,21E-05**	**6,15E-08**	**2,00E-07**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,57E-09**	**0**	**5,44E-07**	**-2,09E-06**
	Eutrophication aquatic marine [kg N eq.]	**2,52E-04**	**5,81E-06**	**7,29E-06**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,43E-07**	**0**	**4,80E-06**	**-6,08E-06**
	Eutrophication terrestrial [Mole of N eq.]	**2,32E-03**	**6,85E-05**	**4,23E-05**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,87E-06**	**0**	**5,28E-05**	**-2,22E-05**
	Photochemical ozone formation [kg NMVOC eq.]	**6,35E-04**	**1,60E-05**	**1,12E-05**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6,68E-07**	**0**	**1,49E-05**	**-5,87E-06**
	Depletion of abiotic resources - mineral and metals [kg Sb eq.][1]	**2,30E-07**	**1,23E-09**	**3,88E-09**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,13E-11**	**0**	**1,90E-10**	**-1,36E-08**
	Depletion of abiotic resources – fossil fuels [MJ][1]	**6,21E+00**	**1,88E-01**	**7,60E-02**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8,00E-03**	**0**	**4,20E-02**	**-3,40E-02**
	Water use [m³ world equiv.][1]	**1,18E-01**	**2,15E-04**	**1,00E-03**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8,98E-06**	**0**	**3,46E-04**	**-3,00E-03**

[1] The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

Resources Use

	Resources Use indicators	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
		Product stage	Construction stage		Use stage							End of life stage				D Reuse, recovery, recycling
	Use of renewable primary energy excluding renewable primary energy resources used as raw materials (PERE) [MJ]	3,63E-01	1,60E-02	5,00E-03	0	0	0	0	0	0	0	0	6,65E-04	0	7,00E-03	5,00E-03
	Use of renewable primary energy resources used as raw materials (PERM) [MJ]	4,94E-01	0	-2,68E-01	0	0	0	0	0	0	0	0	0	0	0	0
	Total use of renewable primary energy resources (PERT) [MJ]	8,57E-01	1,60E-02	-2,63E-01	0	0	0	0	0	0	0	0	6,65E-04	0	7,00E-03	5,00E-03
	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials (PENRE) [MJ]	6,19E+00	1,88E-01	7,50E-02	0	0	0	0	0	0	0	0	8,00E-03	0	4,20E-02	-3,40E-02
	Non-renewable primary energy resources used as raw materials (PENRM) [MJ]	2,22E-02	0	1,11E-03	0	0	0	0	0	0	0	0	0	0	0	0
	Total use of non-renewable primary energy resources (PENRT) [MJ]	6,21E+00	1,88E-01	7,60E-02	0	0	0	0	0	0	0	0	8,00E-03	0	4,20E-02	-3,40E-02
	Use of secondary material (SM) [kg]	7,94E-04	0	3,97E-05	0	0	0	0	0	0	0	0	0	0	0	0
	Use of renewable secondary fuels (RSF) [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Use of non-renewable secondary fuels (NRSF) [MJ]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Net use of fresh water (FW) [m3]	3,40E-03	1,79E-05	2,87E-05	0	0	0	0	0	0	0	0	7,47E-07	0	1,05E-05	-6,42E-05

Waste Category & Output flows

Waste Category & Output Flows		Product stage	Construction stage		Use stage							End of life stage				D Reuse, recovery, recycling
		A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
	Hazardous waste disposed (HWD) [kg]	**5,00E-03**	**6,08E-12**	**5,69E-05**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,55E-13**	**0**	**1,04E-11**	**-1,50E-04**
	Non-hazardous waste disposed (NHWD) [kg]	**3,40E-02**	**2,92E-05**	**1,30E-02**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,22E-06**	**0**	**1,63E-01**	**-1,00E-03**
	Radioactive waste disposed (RWD) [kg]	**6,91E-04**	**2,43E-07**	**6,40E-06**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,02E-08**	**0**	**4,95E-07**	**5,68E-07**
	Components for re-use (CRU) [kg]	**0**	**0**	**1,10E-02**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Materials for Recycling (MFR) [kg]	**1,40E-02**	**0**	**7,00E-04**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5,76E-04**
	Materials for Energy Recovery (MER) [kg]	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	Exported energy (EE) [MJ]	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Additional mandatory indicators from EN 15804 + A2

	Product stage	**Construction stage**	Use stage							End of life stage				Reuse, Recovery Recycling
Environmental indicators	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	D Reuse, recovery, recycling
Climate Change [kg CO_2 eq.][2]	**2,49E-01**	**1,50E-02**	**4,00E-03**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**6,14E-04**	**0**	**3,00E-03**	**-1,19E-05**

Information on biogenic carbon content

	Biogenic Carbon Content	**Product stage** **A1 / A2 / A3**
	Biogenic carbon content in product [kg]	**2,98E-03**
	Biogenic carbon content in packaging [kg]	**9,82E-03**

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO_2.

The biogenic carbon content in the product comes from the coating. For packaging biogenic carbon content is quantified for the cardboard, the pallet, and the paper.

[2] The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product.

Appendix:

Data quality

Inventory data quality is judged by geographical, temporal, and technological representativeness. To cover these requirements and to ensure reliable results, first-hand industry data crossed with LCA background datasets were used. The data was collected from internal records and reporting documents from Saint-Gobain ADFORS CZ, s.r.o. After evaluating the inventory, according to the defined ranking in the LCA report, the assessment reflects fair inventory data quality for the geographical representation, fair for technological and good for temporal representation.

Bibliography

1. EPD International (2021) General Programme Instructions for the International EPD System. Version 4.0. www.environdec.com
2. EN 15804:2012+A2:2019/AC:2021 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.
3. ISO 14040:2006: Environmental Management-Life Cycle Assessment-Principles and framework.
4. ISO 14044:2006: Environmental Management-Life Cycle Assessment-Requirements and guidelines.
5. ISO 14025:2006: Environmental labels and Declarations-Type III Environmental Declarations-Principles and procedures.
6. ISO 14020:2022: Environmental statements and programs for products — Principles and general requirements.
7. ISO 14021:2016: Environmental labels and declarations — Self-declared environmental claims (Type II environmental labelling).
8. European Chemical Agency, Candidate List of substances of very high concern for Authorization. http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp.
9. The underlying LCA study: 2025_06_17_mesh_LCA_Report
10. Product category rules (PCR): PCR 2019:14 Construction Products, version 1.3.4.