

ENVIRONMENTAL PRODUCT DECLARATION

as per ISO 14025 and EN 15804+A2

Owner of the Declaration	FVA Group
Publisher	Institut Bauen und Umwelt e.V. (IBU)
Programme holder	Institut Bauen und Umwelt e.V. (IBU)
Declaration number	EPD-GEN-2024058-CCA1-EN
Issue date	06/03/2024
Valid to	23/10/2028

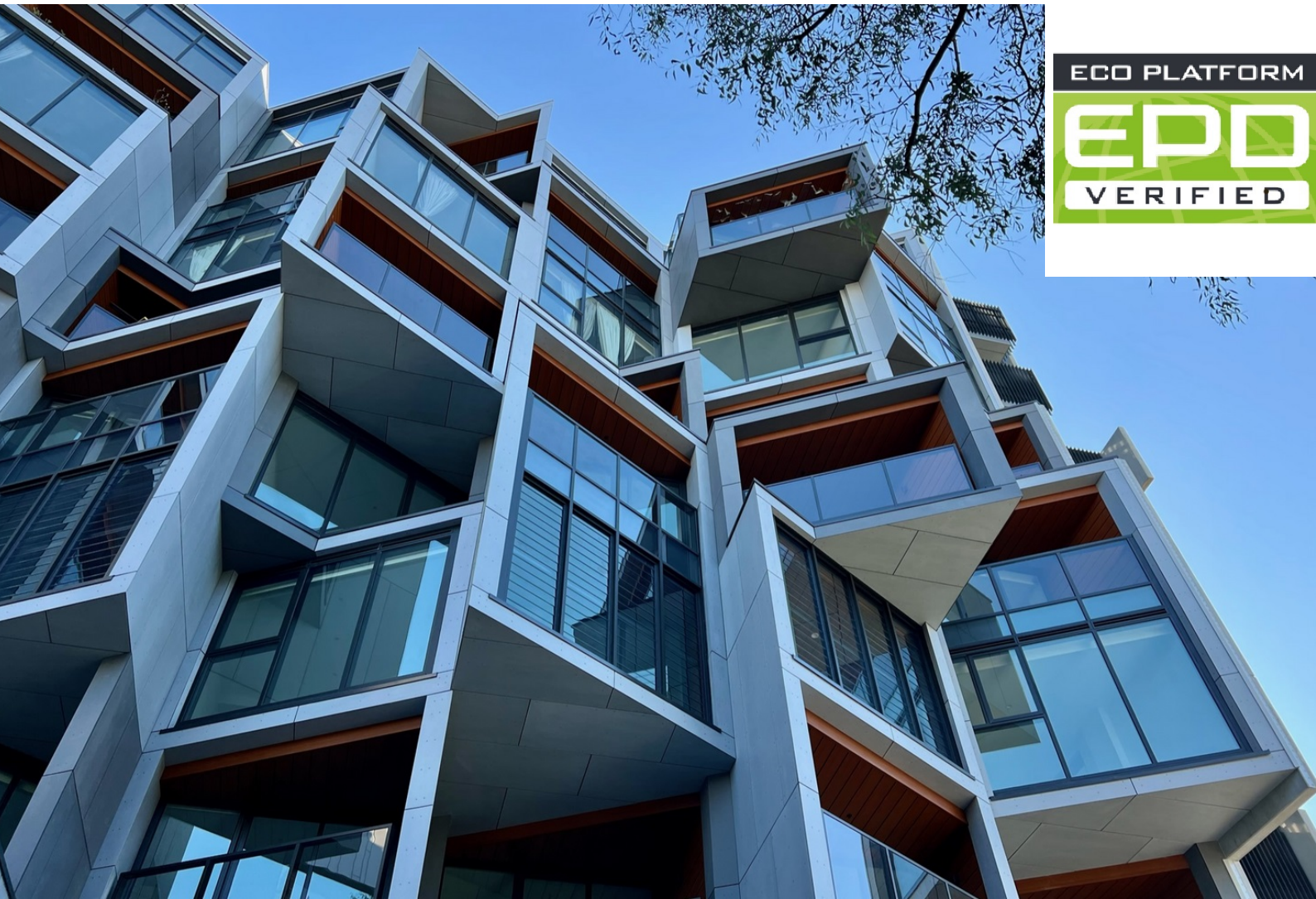
Genesis fibre cement panel
FVA Group

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General Information

FVA Group

Programme holder

IBU – Institut Bauen und Umwelt e.V.
Hegelplatz 1
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Germany

Declaration number

EPD-GEN-2024058-CCA1-EN

This declaration is based on the product category rules:

Fibre cement / Fibre concrete, 01/08/2021
(PCR checked and approved by the SVR)

Issue date

06/03/2024

Valid to

23/10/2028



Dipl.-Ing. Hans Peters
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Genesis fibre cement panel

Owner of the declaration

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Declared product / declared unit

1m² of Fairview Genesis fibre cement panel with a thickness of 8mm

Scope:

This EPD refers to the Genesis fibre cement panels on behalf of Fairview, produced in the factory located in Nyergesújfalu, Hungary, and are based on the production volumes of the year 2021.

The owner of the declaration shall be liable for the underlying information and evidence; the IBU shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

The EPD was created according to the specifications of EN 15804+A2. In the following, the standard will be simplified as *EN 15804*.

Verification

The standard EN 15804 serves as the core PCR	
Independent verification of the declaration and data according to ISO 14025:2011	
<input type="checkbox"/>	internally
<input checked="" type="checkbox"/>	externally



Dr. Matthew Fishwick,
(Independent verifier)

Product

Product description/Product definition

Fairview Genesis is a high quality, through-coloured fibre cement panel and is intended to be used as façade cladding. Deemed non-combustible, Genesis is available in large sheet sizes across a range of colours and profiles and features a rivet screw fix system ensuring on-site efficiencies.

This declaration is based on an average of the Genesis fibre cement panel and its range of profiles. The panels are produced in Nyergesújfalu, Hungary. The profiles covered in this declaration are as follows:

Genesis Raw: Through coloured sanded façade panel with textured surface.

Genesis Groove: Through coloured sanded façade board with lineal grooves. The lineal grooves have a height of 9.5 mm.

Genesis Hewn: Through coloured sandblasted façade board with a rough surface.

Differences between the products are expected to be low, as only the surface treatment differs between the panels. For the placing on the market of the product in the European Union/European Free Trade Association (EU/EFTA) (with the exception of Switzerland) *Regulation (EU) No. 305/2011 (CPR)* applies. The product needs a declaration of performance taking into consideration *EN 12467:2012+A2:2018 'Fibre-cement flat sheets - Product specification and test methods and the CE-marking.*

Application

Fairview Genesis fibre cement panels are intended for installation as both outdoor and indoor facade cladding by use of a rivet screw fix system.

Technical Data

The technical specification of the Fairview Genesis fibre cement panels can be seen in the following table:

Constructional data

Name	Value	Unit
Thermal conductivity	0.37	W/(mK)
Durability against warm water	RL ≥ 0,75	
Durability against soak/dry	RL ≥ 0,75	
Durability against freeze-thaw	RL ≥ 0,75	
Durability against heat-rain	Pass	
Reaction to fire	Class A2-s1, d0	
Density, dry average	1550	kg/m ³
Flexural strength along grain, ambient	12	GPa
Flexural strength across grain, ambient	14	GPa
Flexural strength along grain, wet	9	GPa
Flexural strength E-module across grain, wet	11	GPa
Bending strength Along grain, ambient	22	MPa
Bending strength Across grain, ambient	35	MPa
Bending strength Along grain, wet	18	MPa
Bending strength Across grain, wet	27	MPa

The above table shows technical specifications for the product Genesis Raw. For specific and additional data for other products of the product range, please contact 1800 007 175

Performance data of the product in accordance with the declaration of performance (DoP) with respect to its essential characteristics according to EN 12467:2012+A2:2018 'Fibre-cement flat sheets - Product specification and test methods and the CE-marking.

Base materials/Ancillary materials

The main product components are shown in the table below. Values are given as intervals covering the six declared product variations with a thickness of 8 mm. Specific recipes and some input materials (<2 mass-%) are not shown in this table due to reasons of confidentiality.

Name	Value	Unit
Cement	40-83	%
Filler	0-21	%
Sand	0-34	%
Cellulose/fibres	0-15	%
Paint/pigments	1-5	%

Material explanation

- Portland Cement: Manufactured according to *DIN EN 197-1* from limestone, marl and sand. The material is crushed, dried, calcinated to clinker and ground to cement.
- Inert filler: a filler to optimize deformation properties and material bonding.
- Cellulose fibres (0.5-3mm): To ensure collection of powder during filtration.

There are no substances of very high concern (SVHC) present in the product according to according to Regulation (EC) No.1907/2006 (REACH)

Manufacturing process

The Fairview Genesis facade panels are produced by the use of the Hatschek method: the base materials (binder, fibres, etc) are processed into a homogeneous mixture with water and transferred to the vats of the Hatschek machine. Rotating sieve cylinders in the vats collect a thin layer of solid material and transfer the layer to a rotating felt for dewatering and further on to the accumulating format roller. The format roller is gradually covered by layers of fibre cement. Once the required thickness of the panels is reached, the fibre cement layer, still moist and mouldable, is unwound and taken from the roll. Further information on the Hatschek method may be found here: www.fibrecementconsulting.com/publications/011011.hatschekfilmsummary.pdf.

After the pre-curing period, the Genesis panels are dried in an autoclave, which runs on natural gas. After the drying process the products are ready to be sanded, trimmed edges, cut to customised size, painted, edge-sealed, hydrophobated and finished with quality controls and packing processes.

Reference service life

The Fairview Genesis product range has been introduced quite recently to the market. There are therefore no substantiated data on the reference service life (RSL). However, it is estimated that the RSL of products in the Genesis product range is 50 years or higher. This is in accordance with the table published by the *Bundesinstitut für Bau-, Stadt- und Raumforschung* (BBSR) (code 335.511), which estimates the RSL of facade and roofing products.

LCA: Calculation rules

Declared Unit

In this EPD the declared unit is defined as the production of 1 m² of Fairview Genesis fibre cement panel with a thickness of 8 mm, and an expected lifetime of 50 years or higher, and its related impacts over the 'cradle to grave' lifecycle modules.

Declared unit and mass reference

Name	Value	Unit
Gross density	~1500	kg/m ³
Grammage	~12	kg/m ²
Layer thickness	0.008	m
Declared unit	1	m ²

Data from production site

Data is gathered for the production process at the factory site in Hungary for the year 2021.

This EPD quantifies the average environmental impact of the Fairview products Genesis Raw, Genesis Groove and Genesis Hewn for the year 2021. The average is calculated by collecting all production data per declared unit of product and weighing them based on their production volume. Differences between the product variants are considered to be small.

System boundary

The modules considered in this EPD follow a cradle-to-grave assessment: A1-A5, B1-B7, C1-C4, D.

A1 -The system boundaries include the provision and processing of raw materials. These include in particular cement, plastic fibres, pulp and packaging materials.

A2 -The transports to the manufacturer were specifically collected for all starting materials.

A3 -The production includes all in-plant energy consumption (gas + electricity), as well as water used in the production process, and production waste.

A4 -The transport, part of the construction process, is an average of the total distance of all products delivered to the point of installation. This is calculated to be 20513 km by container ship and 905 km by truck.

A5 -All environmental impacts associated with the disposal of packaging handled at the construction site are accounted for. It is assumed incinerated at an incineration plant. Disposal of product waste is assumed to be landfilled. Furthermore, environmental impacts associated with trucks and fuel for the construction installation are included.

B1-B7 modules are included, however, no significant environmental impact is associated with the use phase of the product.

C1 -Accounts for the environmental impacts associated with dismantling and demolition of the fibre cement boards. Fuel used for demolition equipment and transport of on-site vehicles.

C2 -Transportation of discarded products from the construction site to a landfilling site. The transport is estimated to be 100 km in an average truck.

C3 -The fibre cement panels are sent to landfill and therefore

there are no environmental impacts associated with waste processing of materials flows intended for reuse, recycling or energy recovery.

C4 -Environmental impacts associated with the processes at the landfill.

D -The fibre cement boards are sent to landfill after use. The product has therefore no impact during this stage and no associated environmental impacts. The boards are expected to be reusable over time, but this is not included in this assessment. Incineration credits for the packaging material have been considered.

Background data and data quality

Modelling of the production of 1m² of Genesis facade panel is done with *GaBi Software* System and Database for Life Cycle Engineering. The model has been developed by *Sphera Solutions GmbH*. Each background dataset has been reviewed on geographical, technological, and temporal scales.

Technological: All primary and secondary data are modelled to be specific to the technology mixes under study. Proxy data are used where technology-specific data are unavailable. The technological representativeness is considered to be good.

Geographical: All primary and secondary data are collected specific to the countries/regions under study. Where country/region specific data are unavailable, proxy data are used. The geographical representativeness is considered to be good.

Temporal: All primary data collected is based on the year 2021. All secondary data come from the *GaBi 2020.1* databases and are representative for the years 2020-2025. Temporal representativeness is considered to be very good.

Allocation in foreground data

The production process does not deliver any co-products. Therefore, the applied model does not contain any allocation. Pre-processing waste (plastics) is sent to a waste incineration plant. The resulting electrical and thermal energy is credited in module A1. For the waste incineration plant an R1-value of above 0.6 is assumed. The resulting credits based on the incineration of the packaging of the product are declared in module D.

This EPD is based on a cradle-to-grave + module D, in which >99 weight-% has been accounted for. The general rules for the exclusion of inputs and outputs follow the requirements in *EN 15804:2012+A2:2019*, 6.3.5, where the total of neglected input flows per module shall be a maximum of 5% of energy usage and mass and 1 % of energy usage and mass for unit processes. Data collection and measurements include all processes, materials or emissions that are known to make a significant contribution to the environmental impact of producing facade boards. All these emissions were considered in the model. Therefore, there has been no exclusion of inputs and outputs above these limits.

Geographic Representativeness

Land or region, in which the declared product system is manufactured, used or handled at the end of the product's lifespan: Global

Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created

according to *EN 15804* and the building context, respectively the product-specific characteristics of performance, are taken into account.

LCA: Scenarios and additional technical information

Characteristic product properties of biogenic carbon

The biogenic carbon containing material (cellulose) in Genesis fibre cement panels is required to be listed separately. The following table shows the biogenic carbon content in the product and accompanying packaging:

Information on describing the biogenic carbon content at factory gate

Name	Value	Unit
Biogenic carbon content in product	0.06	kg C
Biogenic carbon content in accompanying packaging	0.015	kg C

Note: 1 kg of biogenic carbon is equivalent to 44/12 kg of CO₂.

Transport to the building site (A4)

All Genesis fibre cement panels are transported 605 km by road from Nyergesújfalu (Hungary) to Koper (Slovenia) and onwards via containership to Sydney (Australia). The products are subsequently transported 150 km via truck to the warehouse in Lithgow, NSW (Australia). Fairview's products are distributed widely, however, 70% of the sold volume is located within 150 km of the warehouse, therefore 150 km by truck is used to represent the distance to the construction site.

Name	Value	Unit
Gross density of products transported	1500	kg/m ³
Transport distance (containership)	20513	km
Transport distance (road)	905	km

Installation into the building (A5)

Installation of the boards is carried out by use of a rivet gun. It is estimated that under high wind loads the maximum amount of rivets used per declared unit of a Fairview Genesis board is 8 rivets.

The installation waste per functional unit can be seen in the following table.

Name	Value	Unit
Plastic waste	0.004	kg
Pallets	0.55	kg
Screws	8	pcs

In case a **reference service life** according to applicable ISO standards is declared then the assumptions and in-use conditions underlying the determined RSL shall be declared. In addition, it shall be stated that the RSL applies to the reference conditions only.

The same holds for a service life declared by the manufacturer. Corresponding information related to in-use conditions needs not be provided if a service life taken from the list of service life by *BNB* is declared.

Reference service life

Name	Value	Unit
Reference service life (according to ISO 15686-1, -2, -7 and -8)	0 - 0	a
Life Span (according to BBSR)	>50	a

End of life (C1-C4)

Name	Value	Unit
Reuse	-	kg
Landfilling	~12	kg

LCA: Results

The following tables show the results of life-cycle assessment indicators, resource use and waste related to 1m² of Fairview Genesis fibre cement panel with a thickness of 8mm.

DESCRIPTION OF THE SYSTEM BOUNDARY (X = INCLUDED IN LCA; MND = MODULE OR INDICATOR NOT DECLARED; MNR = MODULE NOT RELEVANT)

Product stage			Construction process stage		Use stage							End of life stage				Benefits and loads beyond the system boundaries
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

RESULTS OF THE LCA - ENVIRONMENTAL IMPACT according to EN 15804+A2: 1 m² Fairview Genesis fibre cement panel with a thickness of 8mm

Parameter	Unit	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO ₂ eq	1.13E+01	4.66E-01	3.57E+00	3.3E+00	1.69E+00	0	0	0	0	0	0	0	8.48E-04	9.22E-02	-5.72E-01	2.44E+00	-1.81E-01
GWP-fossil	kg CO ₂ eq	1.13E+01	4.45E-01	3.86E+00	3.26E+00	1.14E+00	0	0	0	0	0	0	0	8.4E-04	8.82E-02	1.63E+00	2.2E-01	-1.8E-01
GWP-biogenic	kg CO ₂ eq	-3.61E-02	2.05E-02	-2.9E-01	3.99E-02	5.46E-01	0	0	0	0	0	0	0	7.14E-06	4.06E-03	-2.21E+00	2.22E+00	-8.73E-04
GWP-luluc	kg CO ₂ eq	4.09E-03	1.06E-05	1.03E-03	6.95E-05	7.23E-04	0	0	0	0	0	0	0	1.19E-06	2.09E-06	4E-03	6.46E-04	-1.19E-04
ODP	kg CFC11 eq	3.49E-13	5.11E-17	3.77E-14	3.44E-16	7.03E-15	0	0	0	0	0	0	0	2.01E-17	1.01E-17	1.97E-13	8.55E-16	-1.96E-15
AP	mol H ⁺ eq	4.48E-02	3.67E-04	5.05E-03	9.09E-02	2.49E-03	0	0	0	0	0	0	0	1.75E-06	7.26E-05	1.39E-02	1.57E-03	-2.29E-04
EP-freshwater	kg P eq	9.38E-06	9.47E-08	8.56E-06	7.21E-07	2.1E-06	0	0	0	0	0	0	0	2.25E-09	1.87E-08	4.29E-05	3.69E-07	-2.24E-07
EP-marine	kg N eq	7.61E-03	1.16E-04	1.72E-03	2.41E-02	5.65E-04	0	0	0	0	0	0	0	4.15E-07	2.29E-05	4.36E-03	4.07E-04	-6.6E-05
EP-terrestrial	mol N eq	8.34E-02	1.28E-03	1.82E-02	2.64E-01	6.18E-03	0	0	0	0	0	0	0	4.36E-06	2.54E-04	4.61E-02	4.47E-03	-7.08E-04
POCP	kg NMVOC eq	2.31E-02	3.5E-04	4.69E-03	6.73E-02	1.81E-03	0	0	0	0	0	0	0	1.13E-06	6.93E-05	1.24E-02	1.23E-03	-1.86E-04
ADPE	kg Sb eq	2.94E-04	1.56E-08	5.52E-07	1.01E-07	5.17E-05	0	0	0	0	0	0	0	2.47E-10	3.08E-09	5.38E-07	2.08E-08	-2.89E-08
ADPF	MJ	1.02E+02	6.31E+00	7.28E+01	4.1E+01	9.69E+00	0	0	0	0	0	0	0	1.49E-02	1.25E+00	2.59E+01	2.92E+00	-3.13E+00
WDP	m ³ world eq deprived	8.35E-01	7.38E-04	2.56E-01	5.09E-03	9.68E-02	0	0	0	0	0	0	0	1.35E-04	1.46E-04	3.42E-02	2.36E-02	-1.31E-02

GWP = Global warming potential; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential of land and water; EP = Eutrophication potential; POCP = Formation potential of tropospheric ozone photochemical oxidants; ADPE = Abiotic depletion potential for non-fossil resources; ADPF = Abiotic depletion potential for fossil resources; WDP = Water (user) deprivation potential

RESULTS OF THE LCA - INDICATORS TO DESCRIBE RESOURCE USE according to EN 15804+A2: 1 m² Fairview Genesis fibre cement panel with a thickness of 8mm

Parameter	Unit	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	4.93E+00	2.08E-02	1.3E+01	1.39E-01	2.25E+00	0	0	0	0	0	0	0	6.88E-03	4.12E-03	6.96E+01	7.88E+00	-6.72E-01
PERM	MJ	7.49E+00	0	1.4E-01	0	-1.4E-01	0	0	0	0	0	0	0	0	0	0	-7.49E+00	0
PERT	MJ	1.24E+01	2.08E-02	1.31E+01	1.39E-01	2.11E+00	0	0	0	0	0	0	0	6.88E-03	4.12E-03	6.96E+01	3.93E-01	-6.72E-01
PENRE	MJ	1.02E+02	6.32E+00	7.25E+01	4.11E+01	1.01E+01	0	0	0	0	0	0	0	1.49E-02	1.25E+00	2.59E+01	2.92E+00	-3.13E+00
PENRM	MJ	0	0	3.4E-01	0	-3.4E-01	0	0	0	0	0	0	0	0	0	0	0	0
PENRT	MJ	1.02E+02	6.32E+00	7.28E+01	4.11E+01	9.75E+00	0	0	0	0	0	0	0	1.49E-02	1.25E+00	2.59E+01	2.92E+00	-3.13E+00
SM	kg	3.61E+00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RSF	MJ	ND	ND	ND	ND	ND	0	0	0	0	0	0	0	ND	ND	ND	ND	ND
NRSF	MJ	ND	ND	ND	ND	ND	0	0	0	0	0	0	0	ND	ND	ND	ND	ND

FW	m ³	2.3E-02	3.34E-05	1.13E-02	2.26E-04	4.06E-03	0	0	0	0	0	0	0	0	6.7E-06	6.61E-06	1.82E-02	7.2E-04	-6.57E-04
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PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

**RESULTS OF THE LCA – WASTE CATEGORIES AND OUTPUT FLOWS according to EN 15804+A2:
1 m² Fairview Genesis fibre cement panel with a thickness of 8mm**

Parameter	Unit	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	1.9E-08	4.34E-11	1.46E-08	3.09E-10	1.2E-09	0	0	0	0	0	0	0	3.95E-12	8.6E-12	2.5E-08	3.1E-10	-6.97E-10
NHWD	kg	1.18E+00	6.32E-04	5.24E-01	4.12E-03	5.9E-02	0	0	0	0	0	0	0	1.06E-05	1.25E-04	8.36E-02	1.46E+01	-1.41E-03
RWD	kg	2.75E-03	6.76E-06	8.59E-03	4.52E-05	3.96E-04	0	0	0	0	0	0	0	2.22E-06	1.34E-06	1.85E-03	3.06E-05	-2.16E-04
CRU	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MFR	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MER	kg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EEE	MJ	0	0	0	0	1.8E-02	0	0	0	0	0	0	0	0	0	0	0	0
EET	MJ	0	0	0	0	3.25E-04	0	0	0	0	0	0	0	0	0	0	0	0

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy

**RESULTS OF THE LCA – additional impact categories according to EN 15804+A2-optional:
1 m² Fairview Genesis fibre cement panel with a thickness of 8mm**

Parameter	Unit	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PM	Disease incidence	9.26E-07	2.04E-09	1.03E-07	1.55E-06	2.97E-08	0	0	0	0	0	0	0	1.47E-11	4.03E-10	8.79E-07	1.95E-08	-1.98E-09
IR	kBq U235 eq	3.97E-01	9.58E-04	5.62E-01	6.44E-03	4.86E-02	0	0	0	0	0	0	0	3.65E-04	1.9E-04	3.01E-01	3.22E-03	-3.55E-02
ETP-fw	CTUe	2.53E+01	4.57E+00	1.77E+01	2.97E+01	2.91E+00	0	0	0	0	0	0	0	6.28E-03	9.05E-01	1.67E+01	1.66E+00	-6.24E-01
HTP-c	CTUh	3.25E-09	8.5E-11	5.47E-10	5.53E-10	1.03E-09	0	0	0	0	0	0	0	1.78E-13	1.68E-11	8.76E-10	2.45E-10	-2.94E-11
HTP-nc	CTUh	3.34E-07	3.55E-09	3.99E-08	2.51E-08	1.23E-08	0	0	0	0	0	0	0	6.71E-12	7.03E-10	5.53E-08	2.71E-08	-1.17E-09
SQP	SQP	1.66E+01	1.61E-02	8.09E+01	1.08E-01	1.75E+00	0	0	0	0	0	0	0	4.71E-03	3.19E-03	1.05E+03	5.89E-01	-4.6E-01

PM = Potential incidence of disease due to PM emissions; IR = Potential Human exposure efficiency relative to U235; ETP-fw = Potential comparative Toxic Unit for ecosystems; HTP-c = Potential comparative Toxic Unit for humans (cancerogenic); HTP-nc = Potential comparative Toxic Unit for humans (not cancerogenic); SQP = Potential soil quality index

Disclaimer 1 – for the indicator “Potential Human exposure efficiency relative to U235”. 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 or radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, radon and from some construction materials is also not measured by this indicator.

Disclaimer 2 – for the indicators “abiotic depletion potential for non-fossil resources”, “abiotic depletion potential for fossil resources”, “water (user) deprivation potential, deprivation-weighted water consumption”, “potential comparative toxic unit for ecosystems”, “potential comparative toxic unit for humans – cancerogenic”, “Potential comparative toxic unit for humans - not cancerogenic”, “potential soil quality index”. The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high as there is limited experience with the indicator.

This EPD was created using a software tool.

References

Standards

DIN EN 197-1

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ISO 14025

EN ISO 14025:2011, Environmental labels and declarations — Type III environmental declarations — Principles and procedures.

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ISO 15686-1:2011

Part 1 General principles and framework

Part 2 Service life prediction procedures

Part 7 Performance evaluation for feedback of service life data from practice

Part 8 Reference service life and service-life estimation

EN 15804

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Further References

BBSR

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www.gabisoftware.com/support/gabi/gabidatabase2020lifecycledocumentation
GaBi software
Sphera Solutions GmbH
GaBi Software System and Database for Life Cycle Engineering
CUP Version: 2022.2
University of Stuttgart
Leinfelden Echterdingen

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Institut Bauen und Umwelt e.V.: General Instructions for the EPD programme of Institut Bauen und Umwelt e.V., Version 2.0, Berlin: Institut Bauen und Umwelt e.V., 2021 www.ibu-epd.com

PCR Part A

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PCR Part B

Requirements of the EPD for Fibre Cement/Fibre Concrete, version 1.7, Institut Bauen und Umwelt e.V., www.bau-umwelt.com, 2019

REGULATION (EU) No 305/2011 Harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC

The literature referred to in the Environmental Product Declaration must be listed in full. Standards already fully quoted in the EPD do not need to be listed here again.

The current version of PCR Part A and PCR Part B of the PCR document on which they are based must be referenced.



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