Environmental Product Declaration

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

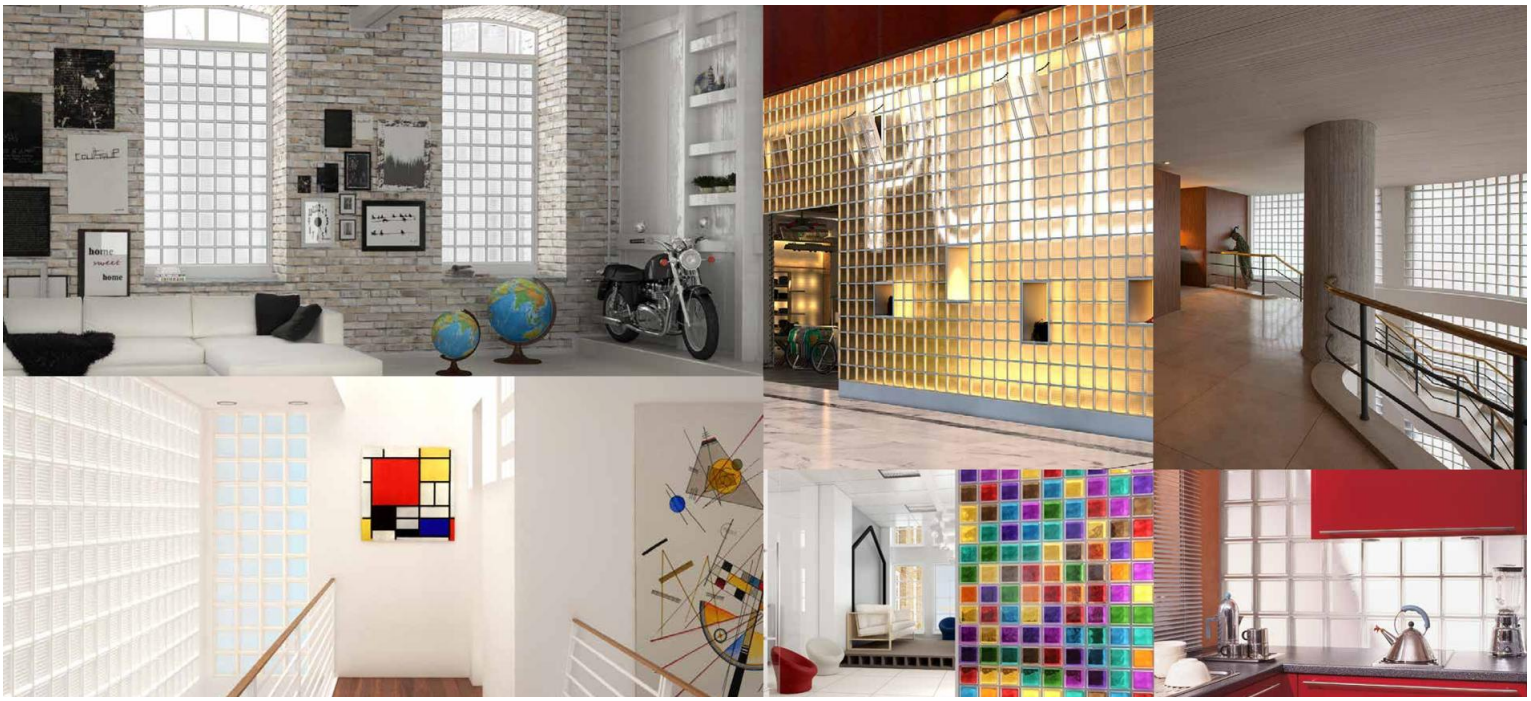
Glass blocks

Company:

Seves Glass Block s.r.o.

Program:	"National Environmental Labelling Programme" - Czech Republic
Programme operator:	Ministry of the Environment of the Czech Republic, CENIA, Czech Environmental Information Agency, Executive Function of the NPEZ Agency
Declaration number:	**Reference: 3015-EPD-030067242**
Release Date:	2025-04-10
Expiration date:	2030-04-10

The EPD should provide up-to-date information and may be updated if conditions change.



General Information

Program Information

Program:	**"National Environmental Labelling Programme" – Czech Republic (NPEZ)**
Address:	Ministry of the Environment of the Czech Republic Department of Voluntary Instruments 100 10 Prague 10, Vršovická 1442/65
Website:	www.mzp.cz, www.cenia.cz
Email:	info@mzp.cz

Responsibilities for PCR, LCA and independent third-party verification
Product category rules (PCR)
CEN EN 15804+A2 serves as the basic product category (PCR) rules
Product category rules (PCR): *EN 15804:2012+A2:2019/AC:2021*
Life Cycle Assessment (LCA)
LCA Responsibility: *Seves Glass Block s.r.o.*
Third-party verification
Independent third-party verification of ISO 14025:2006 declarations and data by: ☐ Verification of EPDs by an accredited certification body *This EPD has not yet been verified by a third party, but is ready to be verified in accordance with the requirements of ISO 14025:2006*
The procedure for monitoring data during the validity of an EPD involves a third-party verifier: ☐ Yes ☒ no

The owner of an EPD has sole ownership and responsibility for the EPD.

EPDs within the same product category but registered in different EPD programs or not meeting EN 15804 **may not be comparable**. To be comparable, two EPDs must be based on the same PCR (including the same version number) or be based on fully comparable PCRs or their versions; they must cover products with the same functions, technical characteristics and applications (e.g. identical declared/functional units); must have equivalent system boundaries and data descriptions; apply equivalent requirements for data quality, data collection methods and allocation methods; apply identical limitation rules and impact assessment methods (including the same version of characterisation factors); have an equivalent statement of content and be valid at the time of comparison. For more information on comparability, please refer to EN 15804 and ISO 14025.

Company information

Owner: Seves Glass Block s.r.o.

Bílinská 782/42, 419 01 Duchcov, CZ
Company ID: 21234736

https://www.sevesglassblock.com/
Contact:
Petr Zeithammer, info@sevesglassblock.com, +420 417 818 111

Description of the organization:
Seves Glass Block s.r.o. is a world leader in the production of glass blocks, offering products for construction projects with high aesthetic and functional value, as well as for interior solutions. The history of production began in 1912. Glass blocks are made of natural materials, are very durable and recyclable, making them an environmentally friendly product. Seves Glass Block s.r.o. is the only manufacturer of glass blocks that supplies to more than 100 countries on all continents.

Certification related to the product or management system:
The quality of products is ensured by an effective quality management system according to EN ISO 9001 and is in accordance with the technical regulations related to the type of product. The manufacturer has implemented an environmental management system, an energy management system and an occupational health and safety management system.
Glass blocks are manufactured in accordance with the European Construction Products Regulation No. 305/2011, the products meet the basic requirements specified by the ČSN EN 1051-1 standard from 2003. The conformity assessment is carried out according to the harmonized standard ČSN EN 1051-2.

Name and location (address) of production sites:
Seves Glass Block s.r.o.
419 01 Duchcov, Bílinská 782/42, CZ

Product information

Product Name: Glass blocks

Product identification:
The product includes the following sub-types of blocks:

Clear 1111/8
Clear 19/8 Allbend
Clear 19/8 Corner
Clear 1909/8
Clear 1919/10
Clear 1919/10 30F
Clear 1919/13 ES 09
Clear 1919/16 F60
Clear 1919/16 F90
Clear 1919/13 F120
Clear 1919/16 HTI
Clear 1919/5
Clear 1919/8
Clear 1919/8 30F
Clear 1919/8 BSH20
Clear 1919/8 Double End
Clear 1919/8 ES 1.4
Clear 1919/8 ES 1.1
Clear 1919/8 Linear End
Clear 2411/8
Clear 2424/8
Clear 2424/8 ES 1.1
Clear 3030/10
Clear 483
Clear 483 Vistabrik
Clear 663
Clear 664
Clear 683
Clear 683 Vistabrik
Clear 881.5 Vistabrik
Clear 883
Clear 883 Corner
Clear 883 Vistabrik
Clear 884
Clear 884 ES 1.1
Clear 884 THICKSET 90
Clear B 1111/6
Clear B 1414/5
Clear B 1616/3
Clear B 1919/7
Clear B 2020/2
Clear B R11/6 PV 4-LED
Clear B1111/6 PV 4-LED
Clear BG 1414/11
Clear BG 1919/10
Clear BG 1919/16 F60
Clear BG 1919/16 F90
Clear BG 1919/8 30F

Clear BG 1919/8 Circles
Clear BG 1919/8 Clearview
Clear BG 1919/8 Dots
Clear BG R19/10
Clear BR 11/6
Clear BR 19/5
Clear Vetropieno Recttangolare
Clear Vetropieno Quadrato
Neutro ANGOLARE
Neutro Q19
Neutro Q19 Doric
Neutro Q19 ES 1.2
Neutro Q19 ES 1.5
Neutro Q30 Trapezoidale
Neutro Q33
Neutro R09
Neutro TER Curvo
Neutro TER Lineare
Neutro Q30 Doric
Colour Feeder 1919/8
Colour Feeder 1919/8 Double End
Colour Feeder 1919/8 Linear End
Colour Feeder Q19
Colour Feeder R09
Colour Feeder Vetropieno Recttangolare
Colour Feeder Vetropieno Quadrato
Colour Injected 1919/8
Colour Injected Q19 – MENDINI
Colour injected Q19 - New colour Collection
Colour Injected MG/s 14.6x14.6 x 8
Colour Injected MG/s 14.6 x 14.6 x 8 Corner
Colour Injected MG/s 14.6x14.6x8 Curved End
Colour Injected MG/s 14.6x14.6x8 Linear End

Product description:

Glass blocks are a versatile building material that is used in various types of construction projects, both indoors and outdoors. In interiors, these are mainly decorative walls, partitions and other design elements. In exteriors, these are building facades that require an aesthetic appearance and functional properties at the same time. Glass blocks are available in a variety of patterns, colours and sizes, allowing for a wide range of design and customization options. Glass blocks have excellent light transmission. Some variants offer increased resistance to impact, fire, and sound and thermal insulation. It also offers the option of installation with mortar or dry installation system, which simplifies the installation process.

Glass blocks can be divided into:

- Blocks used for the production of building components, e.g. non-load-bearing walls. In these applications, they are required to accommodate only their own weight, in a direction parallel to the fronts, and horizontal loads caused by wind and shocks, in a direction perpendicular to the end faces.
- Glass tiles used for the production of reinforced concrete panels, containing glass panels. These panels are used in horizontal applications and may be able to transmit vehicle traffic. They can be considered a non-structural element; i.e. it transfers its own weight and other loads perpendicular to the front surfaces.

Main areas of application:

- Interiors: Decorative walls, partitions and other design elements
- Exteriors: Building facades that require both aesthetic appearance and functional properties

UN CPC code:
37117 Paving stones, bricks, tiles and other articles of pressed or moulded glass, of a kind used for construction or construction purposes

Geographical Range:
The generic data used from the Ecoinvent database are used with validity for the Czech Republic (e.g. energy inputs) and if data are not available for the Czech Republic, data valid for the EU or according to the location of the supplier are used. Based on evaluation according to EN 15804+A2, Annex E, Tab. E.1 The generic data used meets the quality level – medium.

Product packaging:
The products are supplied in accordance with the standards specified in the product description. Products are delivered in cardboard boxes.

Environment and health during use
During the entire production process, it is not necessary to take any special health protection measures beyond the legally specified industrial protection measures for production employees.

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LCA Information

Functional unit / declared unit:

The declared unit is 1 kg of the average manufactured product – Glass blocks.

Denomination	Unit	Value
Declared unit	Kg	1
Conversion factor per 1 kg	Kg	1

Reference life:
The reference life is not declared. These are construction products with many different application purposes. The service life is limited by the service life of the structures where the product is used.
Temporal representativeness:
The manufacturer's data for 2023 **is used for specific data**. For generic data, the data of the Ecoinvent database version 3.9 are used. Based on evaluation according to EN 15804+A2, Annex E, Tab. E.1 The generic data used meets the quality level - very good.
Used databases and LCA software:
Calculation software SimaPro Craft, version 10.1, Ecoinvent database version 3.9.
GWP-GHG from electricity generation: 0.605 kg CO2 eq/kWh (CZ residual mix)

Description of the system boundaries:

Cradle to gate with add-ons, modules C1–C4, module D and optional modules (A1–A3 + C + D and add-on modules). The add-on modules can be one or more selected from A4–A5 and/or B1–B7;
The production phase includes the following modules:

- **A1** - **Mining and processing of raw materials** and production of packaging from input raw materials
- **A2** – **transport of input raw materials** from supplier to manufacturer, waste removal
- **A3 - production** of products, production of auxiliary materials and semi-finished products, energy consumption,
  including waste processing until it reaches a state where it ceases to be waste or after the removal of the last material residues during the production phase.
  The results A1-A3 **include a '*balancing report*'** of biogenic CO2 from the packaging released in module A5, as module A5 is not fully covered. According to the polluter *pays principle*, the costs/benefits of further management of this packaging are also included in this module.

The construction phase includes the following modules:

- **A4** - **transport to the construction site**. Transport takes place by truck with a load capacity of 7.5 - 16 t (EURO 6). The transport of the declared unit of the product over a distance of 1 km is considered.

The end-of-life phase includes modules:

- **C1,** deconstruction, demolition; of a product from a building, including its dismantling or demolition, including the initial sorting of materials at the construction site. Product decomposition and/or disassembly is part of the demolition of the entire building. In this case, the operation of the state/equipment is assumed, diesel consumption 0.045 MJ/kg.
- **C2,** transport to a waste treatment point; transport of a discarded product as part of a waste treatment, e.g. to a recycling site; and transport of waste, e.g. to a final disposal site. Transport from the dismantled building takes place by truck with a load capacity of 7.5 - 16 t (EURO 6) to the recycling center or to the inert material dump as a demolition of a mixed building;
  Estimated transport distance according to calculations: 50 km to the recycling center or landfill.
- **C3,** treatment of waste for reuse, recovery and/or recycling; e.g. collection of fractions of waste from deconstruction, and treatment of waste from material streams for reuse, recycling and energy recovery. A scenario is envisaged where 10 % of the product is deposited in an

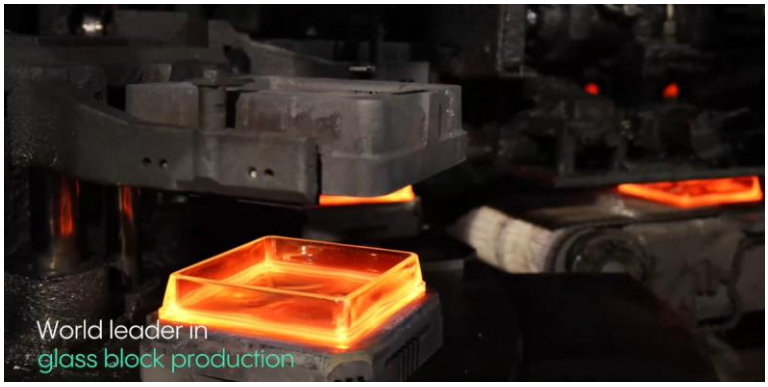
inert landfill. For the use of products as recyclable material, 90% is considered (treatment by crushing into aggregates for various purposes)

- **C4,** waste disposal including pre-treatment and disposal site management. 10% of the dismantled product is disposed of as mixed construction debris at an inert material landfill, without taking into account the energy recovery of landfill gas from (small) organic components

The benefits and costs beyond the product system are listed in module D.
Module D includes:

- **D,** potential for reuse, recovery and/or recycling, expressed in net impacts or benefits. In the scenario of module D, the savings of primary raw material inputs (without considering transport and energy) in another product system are taken into account.

Production:
Raw materials such as quartz sand, soda ash and limestone are melted in a furnace at high temperatures (around 1600°C) until they turn into liquid glass. The liquid glass is then pressed in molds that determine the shape and size of the blocks. The glass blocks are gradually cooled in a controlled environment to prevent cracking. The finished blocks are inspected for any defects such as bubbles or cracks and then packaged for distribution.



More information:
The A5 information module from the construction phase was not included in the LCA due to the difficult availability of input data and is therefore not declared.
Information modules from the use phase **B1 to B7** are also not declared, as these types of products do not require maintenance, repair or replacement during their normal lifetime during the use phase, provided they are used correctly. They also do not require energy or water consumption during the use phase.
For the study, all operational data related to the consumption of main and auxiliary materials for the production of the product, energy data, diesel consumption and the distribution of annual waste production and emissions according to the plant records were taken. From the point of view of the waste produced, only those wastes that are clearly related to production activities were included in the analysis.
The processes required for the installation of production equipment and the construction of infrastructure were not included in the analysis. Administrative processes are also not included – inputs and outputs are balanced on the production phase.

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Declared modules, geographical scope, proportion of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Production phase			Construction phase		Stages of use							End-of-life phase				Additional information
	Mineral Supply	Right	Production	Transport to the construction site	Construction/installation process	Use	Maintenance	Correction	Exchange	Reconstruction	Operating power consumption	Operating water consumption	Demolition/deconstruction	Right	Waste treatment	Removing	Benefits and costs beyond the system. Potential for reuse, recovery and recycling
Module	**A1**	**A2**	**A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
Modules used	**x**	**x**	**x**	**x**	ND	ND	ND	ND	ND	ND	ND	ND	**x**	**x**	**x**	**x**	**x**
Geography	GLO	GLO, EU	EU, CZ	EU									EU	EU	EU	EU	GLO, EU
Specific data used	> 90%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variability – products	<10 %			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variability – places	0 %			-	-	-	-	-	-	-	-	-	-	-	-	-	-

The data used for the EPD calculation comply with the following principles:
Technological aspect: Data corresponding to the current production of individual types of sub-products of the plant and corresponding to the current state of the technologies used are used.
Based on the evaluation according to EN 15804+A2, Annex E, Table E.1, the generic data used meet the quality level - very good.
Completeness and completeness aspect: Most of the input data is based on consumption balances, which are accurately recorded in the manufacturer's information system. The reliability of the source of specific data is given by the uniformity of the information system collection methodology.
Consistency aspect: Consistent aspects are used throughout the report (allocation rules, age of data, technological scope of validity, time scope of validity, geographical scope of validity).
Plausibility aspect: All relevant data were checked for cross-comparison of mass balances.
The variability of GWP-GHG between the included sub-products (see Product Description) is less than 10%. Production takes place at only one production site.
The estimated impact results are only relative data that do not indicate the endpoints of impact categories, threshold exceedances, safety margins and/or risks.

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Content Information

Glass blocks and glass tiles are made of soda lime silicate glass in accordance with EN 572-1.

Packaging materials	Weight %	Weight-% (relative to product)	Biogenic carbon content in kg C/DU
Packaging - LD-PE foil	4,4	0,1	0
Packaging - cartons	47,7	1,3	0
Packaging - wood	47,9	1,3	6.93E-03
ON THE WHOLE	100	2,8	6.93E-03

Hazardous substances from the SVHC candidate list for authorization	EC number	CAS No.	Mass-% per functional or declared unit
Are not	-	-	-

Substances on the list of substances of very high concern subject to authorisation by the European Chemicals Agency are not present in declarable levels in the product.

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Results of environmental performance indicators

Mandatory impact category indicators according to EN 15804:2012+A2:2019/AC:2021 (characterization factors based on package EF 3.1)

Results per functional or declared unit																
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-fossil	kg CO2 eq.	1.97E+00	2.34E-04	ND	ND	ND	ND	ND	ND	ND	ND	4.47E-03	1.17E-02	2.37E-04	5.66E-04	-2.93E-03
GWP-biogenic	kg CO2 eq.	Select size 1.78E-01	1.83E-06	ND	ND	ND	ND	ND	ND	ND	ND	7.80E-06	9.14E-05	3.08E-05	1.38E-05	-4.52E-04
GWP- luluc	kg CO2 eq.	1.67E-03	1.07E-07	ND	ND	ND	ND	ND	ND	ND	ND	5.03E-07	5.37E-06	5.72E-07	1.11E-07	-1.76E-06
GWP - total	kg CO2 eq.	2.15E+00	2.35E-04	ND	ND	ND	ND	ND	ND	ND	ND	4.47E-03	Select size 1.18E-02	2.68E-04	5.80E-04	-3.39E-03
PM	kg CFC 11 eq.	1.57E-08	5.10E-12	ND	ND	ND	ND	ND	ND	ND	ND	7.10E-11	2.55E-10	4.30E-12	1.96E-11	-4.80E-11
AP	mol H^+ eq.	1.33E+00	4.82E-07	ND	ND	ND	ND	ND	ND	ND	ND	4.14E-05	2.41E-05	1.18E-06	3.65E-06	-2.51E-05
EP-freshwater	kg P eq.	2.99E-03	1.62E-08	ND	ND	ND	ND	ND	ND	ND	ND	1.37E-07	8.08E-07	2.10E-07	2.64E-08	-4.73E-07
EP - seawater	kg N eq.	2.60E-03	1.20E-07	ND	ND	ND	ND	ND	ND	ND	ND	1.92E-05	6.00E-06	2.13E-07	1.59E-06	-7.56E-06
EP - soils	mol N eq.	2.36E-02	1.21E-06	ND	ND	ND	ND	ND	ND	ND	ND	2.09E-04	6.07E-05	1.90E-06	1.71E-05	-1.02E-04
POCP	kg NMVOC eq.	5.94E-03	7.54E-07	ND	ND	ND	ND	ND	ND	ND	ND	6.18E-05	3.77E-05	6.42E-07	6.77E-06	-2.58E-05
ADP-minerals and metals*	kg Sb eq.	6.45E-06	7.48E-10	ND	ND	ND	ND	ND	ND	ND	ND	1.56E-09	3.74E-08	5.20E-10	5.96E-10	-4.35E-08
ADP-Fossil Fuels*	MJ	3.33E+01	3.29E-03	ND	ND	ND	ND	ND	ND	ND	ND	5.85E-02	Select size 1.65E-01	5.32E-03	Select size 1.44E-02	-4.20E-02
WDP*	m^3	7.13E-01	1.27E-05	ND	ND	ND	ND	ND	ND	ND	ND	1.29E-04	6.33E-04	5.56E-05	5.24E-05	-7.43E-04
Abbreviations	**GWP-fossil** = global warming potential of fossil fuels; **GWP-biogenic** = biogenic global warming potential; **GWP-luluc** = Global Warming Potential - Land Use and Land Use Change; **ODP** = stratospheric ozone depletion potential; **AP** = acidification potential, cumulative exceedance; **EP-freshwater** = eutrophication potential, proportion of nutrients entering freshwater; **EP-seawater** = eutrophication potential, proportion of nutrients entering seawater; **EP-soils** = eutrophication potential, cumulative exceedance; **POCP** = ground-level ozone potential; **ADP-minerals and metals** = the potential for the loss of raw materials for non-fossil resources; **ADP-fossil fuels** = loss of raw materials for fossil resources; **WDP** = water scarcity potential (for users), water consumption weighted by water scarcity															

The total GWP values from the decomposition of raw materials are not part of this indicator and amount to 01227 kg CO2 / 1 kg of product.

** Disclaimer: The results of this environmental impact indicator should be used with caution because the uncertainty of these results is high or because there is limited experience with the indicator.*

Disclaimer: If module C is included, then when assessing the results of A1-A3, please also consider the results of modules C.

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Additional mandatory and voluntary impact category indicators

Results per functional or declared unit																
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-GHG[1]	kg CO2 eq.	1.98E+00	2.34E-04	ND	ND	ND	ND	ND	ND	ND	ND	4.47E-03	1.17E-02	2.39E-04	5.66E-04	-2.95E-03
PM	Incidence of the disease	4.75E-08	1.46E-11	ND	ND	ND	ND	ND	ND	ND	ND	1.15E-09	7.32E-10	5.04E-12	9.22E-11	-5.72E-10
IRP	kBq U235 eq.	9.00E-01	5.33E-06	ND	ND	ND	ND	ND	ND	ND	ND	2.78E-05	2.66E-04	1.47E-04	1.37E-05	-6.40E-04
ETP- fw	CTUe	1.95E+01	1.44E-03	ND	ND	ND	ND	ND	ND	ND	ND	2.45E-02	7.22E-02	3.81E-04	5.25E-03	-2.26E-02
HTP-c	CTUh	1.68E-10	4.86E-14	ND	ND	ND	ND	ND	ND	ND	ND	7.52E-13	2.43E-12	7.93E-14	1.00E-13	-2.79E-12
HTP- nc	CTUh	5.06E-09	7.92E-13	ND	ND	ND	ND	ND	ND	ND	ND	2.22E-11	3.96E-11	6.03E-13	2.67E-12	-3.18E-11
SQP	dimensionless	1.01E+01	1.69E-03	ND	ND	ND	ND	ND	ND	ND	ND	3.91E-03	8.45E-02	8.14E-04	2.97E-02	-9.26E-02
Abbreviations	**GWP-GHG** = this indicator includes all greenhouse gases except biogenic intake and emissions of carbon dioxide and biogenic carbon stored in the product; as such, the indicator is identical to GWP-total except that the CF for biogenic $_{CO2}$ is set to zero, **PM** = potential disease incidence due to particulate emissions, **IRP** = potential effect of human exposure to the U235 isotope, **ETP-fw** = potential comparison unit of toxicity to ecosystems, **HTP-c** = potential unit of comparison of toxicity to humans, **HTP-nc** = potential unit of comparison of toxicity to humans, **SQP** = index of potential soil quality															

[1] This indicator includes all greenhouse gases except biogenic intake and emissions of carbon dioxide and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO2 is set to zero.

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Indicators describing resource consumption

Results per functional or declared unit															
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	MJ	2.37E+00	5.74E-05	ND	ND	ND	ND	ND	ND	ND	ND	3.32E-04	2.87E-03	9.98E-04	2.86E-04	-1.42E-02
PERMIAN	MJ	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	2.37E+00	5.74E-05	ND	ND	ND	ND	ND	ND	ND	ND	3.32E-04	2.87E-03	9.98E-04	2.86E-04	-1.42E-02
PENRE	MJ	3.52E+01	3.50E-03	ND	ND	ND	ND	ND	ND	ND	ND	6.22E-02	Select size 1.75E-01	5.58E-03	1.53E-02	-4.41E-02
PENRM	MJ	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	3.52E+01	3.50E-03	ND	ND	ND	ND	ND	ND	ND	ND	6.22E-02	Select size 1.75E-01	5.58E-03	1.53E-02	-4.41E-02
SM	Kg	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m^3	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Abbreviations	**PERE** = Consumption of renewable primary energy, excluding energy sources used as raw materials; **PERM** = Consumption of renewable primary energy sources used as raw materials; **PERT** = Total consumption of renewable primary energy sources (primary energy and primary energy sources used as raw materials); **PENRE** = Non-renewable primary energy consumption, excluding energy sources used as raw materials; **PENRM** = Consumption of non-renewable primary energy sources used as raw materials; **PENRT** = Total consumption of non-renewable primary energy sources (primary energy and primary energy sources used as raw materials); **SM** = Consumption of secondary raw materials; **RSF** = Consumption of renewable secondary fuels; **NRSF** = Consumption of non-renewable secondary fuels; **FW** = Net drinking water consumption															

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Additional environmental information – description of the waste category

Results per functional or declared unit															
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
Hazardous waste removed	Kg	2.39E-03	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Other waste removed	Kg	9.48E-04	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	1.00E-01	0.00E+00
Radioactive waste removed	Kg	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Additional environmental information – description of output flows

Results per functional or declared unit																
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
Reusable building elements	Kg	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials to Be Recycled	Kg	Select size 1.71E-02	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	9.00E-01	0.00E+00	0.00E+00
Materials for energy recovery	Kg	Select size 1.79E-02	0.00E+00	ND	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	1.69E-02	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Balanced energy, thermal	MJ	4.91E-02	0.00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Result tables can only contain values or the letters "ND" (not declared). It is not possible to specify ND for binding indicators. ND shall only be used for voluntary parameters that are not quantified because no data are available.

Other environmental performance indicators

The glass blocks of Seves Glass Block s.r.o. are made of soda lime silicate glass, which is 100% recyclable. This material can be recycled an infinite number of times without losing its properties. Glass blocks contain recycled material in the form of cullet, which contributes to the sustainability of the production process.

Use of recycled glass: Glass blocks contain 20.3% pre-consumer recycled glass (cullet from the manufacturing process that has not been used by the end consumer) and 7.5% post-consumer recycled glass (cullet from waste that has already been used by the final consumer and subsequently recycled). In this way, we reduce the demand for new raw materials and minimize our ecological footprint. The company aims to increase this share, although this is currently limited by the low availability of suitable materials on the market.

Local sources of raw materials: Seves Glass Block uses close sources of the main raw materials, which reduces transport requirements. The main raw material, sand, is mined locally in the Czech Republic, less than 90 km from our facility. We plan to transport the sand so that the return journey will be used to transport materials mined in the vicinity of Seves Glass Block.

Energy efficiency and advanced preheating technology: Seves Glass Block reduces the energy consumption required to melt glass by using waste heat, which is made possible by the innovative technology of the Centauro glass furnace. Developed by Stara Glass, this furnace incorporates a patented four-stage combustion air preheating system that combines the advantages of regenerative and recuperation technologies, ensuring high efficiency and reduced emissions.

Learn more about the environment

Differences from previous versions

Ref

ISO 14025:2010 Environmental labels and declarations - Type III environmental declarations - Principles and procedures
ČSN EN 15804+A2:2020 Sustainability of constructions - Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products
ČSN EN ISO 14040:2006 Environmental management - Life Cycle Assessment - Principles and Framework
ČSN EN ISO 14044:2006 Environmental management - Life Cycle Assessment – Requirements and guidelines
ISO 14063:2020 Environmental management - Environmental communication - Guidelines and examples
ČSN EN 15643:2022 Sustainability in construction - Framework for assessment of buildings and civil engineering works
ČSN EN 15942:2023 Sustainability of construction works - Environmental product declarations - Communication format business-to-business
ČSN EN 17672:2023 Sustainability of construction works - Horizontal rules for business-to-consumer communication
TNI CEN/TR 15941:2012 Sustainability of construction works - Methodology for selection and use of generic data
ČSN EN 16449:2014 Wood and wood-based products - Calculation of the biogenic carbon content of wood and conversion to carbon dioxide
ILCD General guide for Life Cycle Assessment (2010) - JRC EU
Act No. 541/2020 Coll., as amended (the Waste Act); Act No. 541/2020 Coll., as amended (Waste Act)
Decree No. 8/2021 Coll. Waste catalogue – Waste catalogue
Regulation (EC) No 1907/2006 of the European Parliament concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and establishing a European Chemicals Agency - REACH (Registration, Evaluation and Authorisation of Chemicals); (Regulation (EC) No 1907/2006 of the European Parliament concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) and establishing a European Chemicals Agency - REACH (Registration, Evaluation and Authorisation of Chemicals)
Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (CLP Regulation);
SimaPro LCA Package, Pré Consultants, the Netherlands , www.pre-sustainability.com
EU PEF (EF reference package) - https://eplca.jrc.ec.europa.eu/LCDN/EN15804.html
Ecoinvent Centre, www.Ecoinvent.org
Explanatory documents are available from the Technical Support Manager of the EPD owner.