Environmental Product Declaration

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

SGS / GGS
Sliding fire doors and vertically moving fire doors (closures)

from

Somati system s.r.o.,
Jiří Ruč, poptavky@somati-system.cz

Programme:	"National Environmental Labeling Program" - Czech Republic (NPEZ)
Programme operator:	Ministry of the Environment of the Czech Republic, CENIA, Czech Environmental Information Agency, executive function of the NPEZ Agency
EPD registration number:	**3015-EPD-030065133**
Publication date:	2024-05-03
Valid until:	2029-05-03

An EPD should provide current information and may be updated if conditions change.

General information

Programme information

Programme:	"National Environmental Labeling Program" - Czech Republic (NPEZ)
Address:	Ministry of the Environment of the Czech Republic Department of Voluntary Instruments 100 10 Praha 10, Vršovická 1442/65
Website:	www.mzp.cz, www.cenia.cz
E-mail:	info@mzp.cz

Accountabilities for PCR, LCA and independent, third-party verification
Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): *EN 15804:2012+A2:2019/AC:2021*
Life Cycle Assessment (LCA)
LCA accountability: ***Somati system s.r.o.***
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ☒ EPD verification by accredited certification body Third-party verification: ***Technický a zkušební ústav stavební Praha, s.p.*** is an approved certification body accountable for the third-party verification. 190 00 Praha 9, Prosecká 811/76a, CZ The certification body is accredited by: ***Českým institutem pro akreditaci, o.p.s., Osvědčení č. 95/2023*** Verifier: Ing. Lenka Vrbová
Procedure for follow-up of data during EPD validity involves third party verifier: ☐Ano ☒ne

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

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.

Company information

Owner of the EPD: Somati system s.r.o.

Contact:
Luděk Chamrád, lcd@somati-system.cz

Description of the organisation:

The roots of the company go back to Belgium, where in the beginning of the years 1960 Somati NV was founded in order to provide services in the field of fire protection. Somati system s.r.o. grew out of the daughter company SOMATI, s.r.o., which started to write its history in the Czech republic in 1997. In that year the company started to sell fire protection materials and later on it started with the production of fire doors in its own manufacturing company in Troubsko, near Brno.

Somati system s.r.o. keeps on working continuously on the good reputation of the brand name Somati, not only on the Czech market, but also on many other markets in Europe and the world. The focus of the company lays on the highly specialized development and manufacturing of fire doors for industrial applications. Thanks to this, the company holds a significant market share and the fire doors already received relevant awards.

Over the last 20 years, the company Somati delivered a nice piece of work and thanks to the regular fire tests and experiences from the own production, the company was able to build up a reputation as reliable supplier of fire doors. The qualified and stable staff of people is always looking to help the clients finding a good solution when installing functional fire doors, and this not only for exceptional cases, such as a fire brake out, but also to secure the smooth functioning of the fire doors for daily use during running operations in the object of the client.

Somati system s.r.o. is focused on the development and production of the following types of fire doors:

- SLIDING fire doors
- FIREPROOF SCROLLING shutters
- VERTICAL MOVING fire doors
- SECTIONAL fire doors

Product-related or management system-related certifications:

The quality of the products is ensured by an effective quality management system according to EN ISO 9001 and is in accordance with the technical regulations regarding the type of product.

We regularly test the fire resistance and smoke tightness of our closures in accredited European testing laboratories for individual types and variants in accordance with valid European regulations (EN). We test the closures in the following laboratories:

Fires Batizovce	Slovakia
MA 39 Wien	Austria
IFT Rosenheim	Germany
ITB Warszawa	Poland
CSI Zlín	Czech Republic
Efectis Nederland BV	Netherlands
PAVUS Veselí nad Lužnicí	Czech Republic
ÉMI Budapest	Hungary
RISE Borås	Sweden

All doors/shutters for installation and power operated use in industrial, commercial or residential premises with focus on giving safe access for goods and vehicles accompanied or driven by persons on the European market, are already products falling into the harmonized area, i.e. when the manufacturer is obliged to mark such closures with the "CE" conformity mark.

Closures manufactured by Somati system s.r.o. and introduced to the European market meet all the conditions for labeling products with the CE mark in accordance with the standards **EN 13241+A2:2016** Industrial, commercial and garage doors and gates - Product standard, performance characteristic and at the same time **EN 16034 :2014** Pedestrian doorsets, industrial, commercial, garage doors and openable windows - Product standard, performance characteristics - Fire resisting and/or smoke control characteristics. The certification of the closures was ensured through the notified body NB 1396. In accordance with the valid legislation (Regulation of the EP and Council of the EU 305/2011), for all fire

closures produced by the company Somati system s.r.o., is issued by the manufacturer "Declaration of performance" at the time the product is launched on the market, i.e. at the time of shipment.
Products of Somati system s.r.o. are certified according to valid technical standards and meet all requirements for distribution on the EU market.

Name and location of production site(s):
Somati system s.r.o., 664 41 Troubsko, Jihlavská 510/2c, CZ

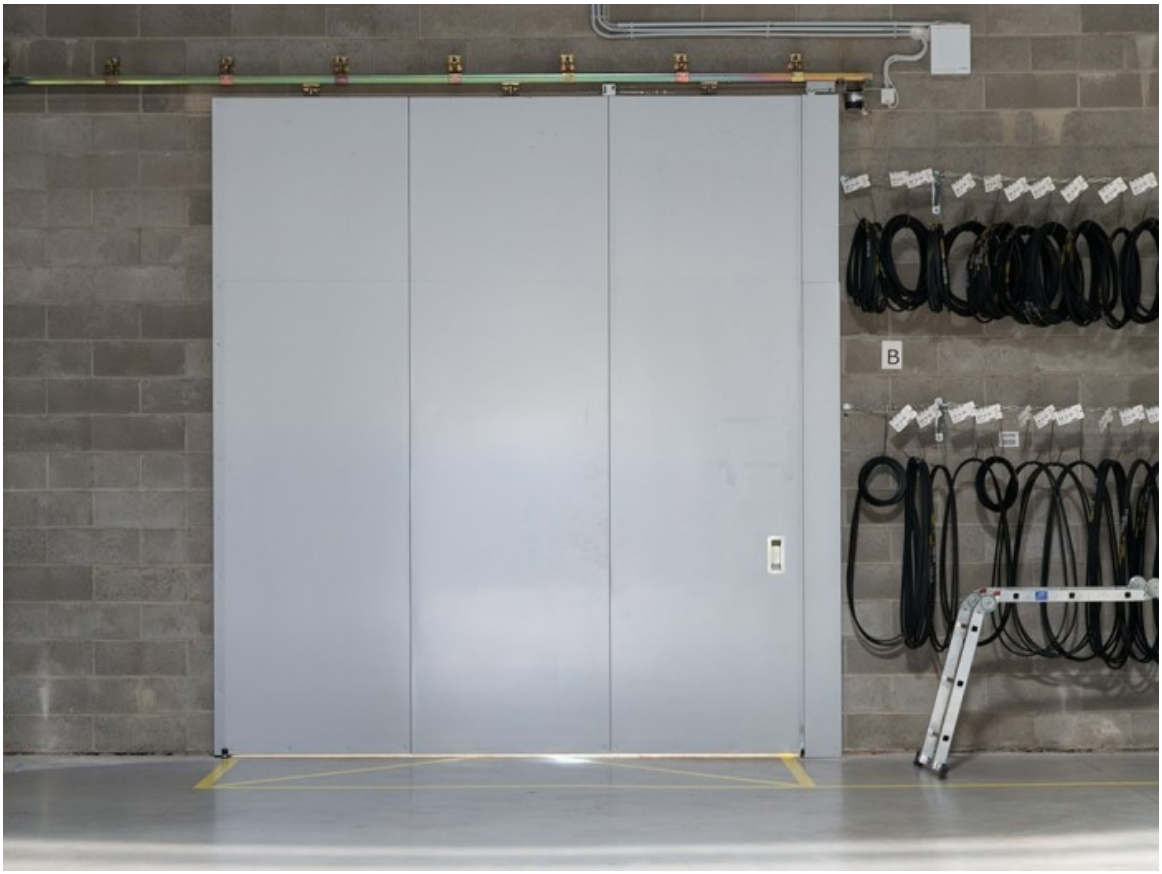
Product information

Product name: Sliding fire doors and vertically moving fire doors (closures)

Product identification:
SGS / GGS

Product description:

Steel sliding fire doors and vertically moving steel fire doors are custom-made according to the customer's dimensional requirements. They are tested according to European standards (ČSN EN) and can be supplied in various versions.
The individual door segments, securely combined into a compact door leaf, are manufactured from thin-walled steel profiles with an interrupted thermal bridge. The door frames and lintel are lined with an insulation profile produced from a self-foaming material. The sliding mechanism can be adjusted vertically and horizontally.



A detailed description of the product is at https://www.somati-system.cz/produkty.

UN CPC code:
42120 Windows, doors - other structures

Geographical scope:
The generic data used from the Ecoinvent database are used with validity for the Czech Republic (e.g. energy inputs) and in the event that data for the Czech Republic are not available, data valid for the EU or according to the location of the supplier are used. Based on the evaluation according to EN 15804+A2, Annex E, tab. E.1 the generic data used meet the quality level - medium.
Product packaging:
The products are delivered in accordance with the standards indicated in the product description. The majority of products are transported individually by truck, the individual parts are suitably fixed. The products are stored on wooden pallets and wrapped in LDPE film for protection during transport.
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.

LCA information

Functional unit / declared unit:

The declared unit is 1 m^2 of the average manufactured product.

Designation	Unit	Value
Declared unit	**m^2**	**1**
Conversion factor to 1 kg - SGS/GGS	kg	25,69

Reference service life:
The reference lifetime is not declared. These are construction products with many different application purposes. The service life is assumed to be 20 years.
Time representativeness:
For specific data, the manufacturer's data for the **year 2023** is used. For generic data, data from the Ecoinvent database version 3.8 is used. Based on the evaluation according to EN 15804+A2, Annex E, tab. E.1 the generic data used meet the quality level - very good.
Database(s) and LCA software used:
SimaPro calculation software, version 9.4 SimaPro Analyst, Ecoinvent database version 3.8.

Description of system boundaries:

b) Cradle to gate with options, modules C1–C4, module D and with optional modules (A1–A3 + C + D and additional modules). The additional modules may be one or more selected from A4–A5 and/or B1–B7.;
As an additional module, module A4 is used – transport to the construction site (from the construction phase)

The production phase includes the following modules:

- **A1** - extraction and processing of raw materials and production of packaging from input raw materials
- **A2** - transport of input raw materials from the supplier to the manufacturer, waste removal
- **A3 -** production of products, production of auxiliary materials and semi-finished products, energy consumption, including waste processing until reaching a state where it ceases to be waste or after removal of the last material residues during the production phase.

The construction phase includes the following modules:

- **A4** - transport to the construction site. Transport is carried out by truck with a capacity of 7.5 - 16 t (EURO 5). Transport of the declared product unit over a distance of 1 km is considered.

The end-of-life phase includes modules:

- **C1,** deconstruction, demolition; product from the building, including its dismantling or demolition, including the initial sorting of materials at the construction site. Decomposition and/or dismantling of the product is part of the demolition of the entire building. In this case, it is assumed that the impact on the environment is very small and can be neglected.
- **C2,** transport to the waste processing site; transportation of discarded product as part of waste processing, e.g. to a recycling site, and transportation of waste, e.g. to a final disposal site. The transport from the dismantled building is carried out by a truck with a capacity of 7.5 - 16 t (EURO 5) to the inert material dump as a demolition of a mixed building, estimated transport distance: 25 km to the recycling center or to the dump.
- **C3,** processing waste for reuse, recovery and/or recycling; e.g. collection of fractions of waste from deconstruction, and processing of waste from material flows intended for reuse, recycling and energy use. A scenario where 100% of the steel or gypsum is recycled is assumed. The cost of sorting scrap is included in the amount of steel content in DU.
- **C4,** waste removal, including its pre-treatment and site management, is not assumed.

Benefits and costs beyond the product system boundary are presented in module D.
Module D includes:

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

Production:
First, the frames of the individual sections of the closure are made, board materials such as plasterboard are installed on them, and then the sheets are attached. At the end, individual accessories important for the proper functioning of the closure are mounted. In the case of RGS doors, each slat consists of a layer of cotton wool between two profiled sheets. Next, the bearing and pressure cylinder and other smaller necessary components are welded.

More information:
Information module **A5** 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, assuming correct use, do not require maintenance, repair or replacement during the normal life time in the use phase. 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 plant records were taken. In terms of produced waste, 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. Also, administrative processes are not included – inputs and outputs are balanced per production phase.

Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results)::

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	**A1**	**A2**	**A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
Modules declared	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	> 99 %					-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0 %					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0 %					-	-	-	-	-	-	-	-	-	-	-	-

The data used to calculate the EPD conforms to the following principles:

Technological point of view: Data corresponding to the current production of individual types of partial 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, tab. E.1 the generic data used meet the quality level - very good.

The aspect of completeness and completeness: Most of the input data is based on consumption balances, which are precisely recorded in the manufacturer's information system. The reliability of the source of specific data is determined by the uniformity of the collection methodology of the information system.

Consistency point of view: Uniform points of view are used throughout the report (allocation rules, age of data, technological scope of validity, temporal scope of validity, geographical scope of validity). Credibility aspect: All important data were checked for adherence to cross-comparison of mass balances.

Content information - SGS/GGS

Product components	Weight %	Post-consumer material, weight-%	Biogenic carbon content in kg C/DU
Steel	78,66	UNKNOWN	0
SDK (board material)	1,54	0	0
RC Granulated steel	19,80	19,80	0
TOTAL	100	19,80	0
Packaging materials	**Weight %**	**Weight-% (versus the product)**	**Biogenic carbon content in kg C/DU**
Packaging - wood (spruce)	97,65	1,48E+00	1,70E-01
Packaging - PE film	2,35	3,57E-02	0,00E+00
Packaging - Paper box	0,00	0,00E+00	0,00E+00
TOTAL	100	1,52E+00	1,70E-01

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit (DU)
They are not	-	-	-

Substances listed on the list of substances of very high concern subject to authorization by the European Chemicals Agency are not contained in the product in declarable quantities.

Results of the environmental performance indicators

Mandatory impact category indicators according to EN 15804:2012+A2:2019/AC:2021

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-fosil	kg CO_2 ekv.	3,41E+01	6,18E-03	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,55E-01	6,72E-01	0,00E+00	-1,14E+01
GWP-biogenic	kg CO_2 ekv.	-2,23E-01	4,93E-06	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,23E-04	-1,11E-02	0,00E+00	-6,30E-04
GWP- luluc	kg CO_2 ekv.	4,09E-03	2,78E-06	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	6,95E-05	9,69E-04	0,00E+00	-4,96E-03
GWP - total	kg CO_2 ekv.	3,39E+01	6,19E-03	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,55E-01	6,62E-01	0,00E+00	-1,14E+01
ODP	kg CFC 11 ekv.	2,76E-07	1,31E-10	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,28E-09	1,04E-08	0,00E+00	-1,48E-07
AP	mol H^+ ekv.	8,41E-02	1,88E-05	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,69E-04	7,34E-03	0,00E+00	-7,06E-02
EP-freshwater	kg P ekv.	8,31E-03	4,15E-07	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,04E-05	3,86E-04	0,00E+00	-1,80E-03
EP- marine	kg N ekv.	2,02E-02	6,42E-06	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,61E-04	1,71E-03	0,00E+00	-1,71E-02
EP - terrestrial	mol N ekv.	1,94E-01	6,78E-05	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,69E-03	1,91E-02	0,00E+00	-1,92E-01
POCP	kg NMVOC ekv.	5,68E-02	2,81E-05	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	7,03E-04	5,72E-03	0,00E+00	-8,31E-02
ADP- minerals& metals*	kg Sb ekv.	-3,14E-05	1,92E-08	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	4,80E-07	4,04E-05	0,00E+00	-6,20E-06
ADP-fosil*	MJ	4,00E+02	8,47E-02	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,12E+00	8,89E+00	0,00E+00	-6,98E+01
WDP*	m^3	1,03E+01	3,25E-04	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	8,14E-03	1,11E-01	0,00E+00	-4,77E-01
Acronyms	**GWP-fossil** = Global Warming Potential fossil fuels; **GWP-biogenic** = Global Warming Potential biogenic; **GWP-luluc** = Global Warming Potential land use and land use change; **ODP** = Depletion potential of the stratospheric ozone layer; **AP** = Acidification potential, Accumulated Exceedance; **EP-freshwater** = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; **EP-marine** = Eutrophication potential, fraction of nutrients reaching marine end compartment; **EP-terrestrial** = Eutrophication potential, Accumulated Exceedance; **POCP** = Formation potential of tropospheric ozone; **ADP-minerals&metals** = Abiotic depletion potential for non-fossil resources; **ADP-fossil** = Abiotic depletion for fossil resources potential; **WDP** = Water (user) deprivation potential, deprivation-weighted water consumption															

** Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.*

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 CO_2 ekv.	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
PM	Disease incidence	7,92E-07	4,11E-10	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,03E-08	1,01E-07	0,00E+00	-1,23E-06
IRP	kBq U235 ekv.	2,44E+00	1,37E-04	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,42E-03	7,07E-02	0,00E+00	-2,86E-01
ETP- fw	CTUe	1,75E+01	3,72E-02	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	9,29E-01	4,65E+00	0,00E+00	-1,89E+01
HTP-c	CTUh	2,28E-08	1,28E-12	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,21E-11	4,04E-10	0,00E+00	-2,78E-08
HTP- nc	CTUh	4,24E-07	2,34E-11	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	5,84E-10	1,30E-08	0,00E+00	-5,31E-07
SQP	dimensionless	6,37E+01	4,34E-02	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	1,09E+00	1,58E+01	0,00E+00	-1,71E+01
Acronyms	**GWP-GHG** = this indicator includes all greenhouse gases except biogenic uptake 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 CO 2 is set to zero, **PM** = Potential incidence of disease due to PM emissions, **IRP** = Potential Human exposure efficiency relative to U235, **ETP-fw** = Potential Comparative Toxic Unit for ecosystems, **HTP-c** = Potential Comparative Toxic Unit for humans, **HTP-nc** = Potential Comparative Toxic Unit for humans, **SQP** = Potential soil quality index															

[1] *This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO_2 is set to zero.*

Resource use 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**
PERE	MJ	1,27E+01	1,48E-03	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,69E-02	1,38E+00	0,00E+00	-3,14E+00
PERM	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	1,27E+01	1,48E-03	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	3,69E-02	1,38E+00	0,00E+00	-3,14E+00
PENRE	MJ	4,29E+02	9,01E-02	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,25E+00	9,43E+00	0,00E+00	-7,38E+01
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	4,29E+02	9,01E-02	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	2,25E+00	9,43E+00	0,00E+00	-7,38E+01
SM	kg	5,09E+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
Acronyms	**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 re-sources; **SM** = Use of secondary material; **RSF** = Use of renewable secondary fuels; **NRSF** = Use of non-renewable secondary fuels; **FW** = Use of net fresh water															

Additional environmental information - Waste 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**
Hazardous waste disposed	kg	3,60E-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
Non-hazardous waste disposed	kg	2,29E-01	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
Radioactive waste disposed	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 - Output flow 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**
Components for re-use	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
Material for recycling	kg	2,29E-01	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	3,52E+01	0,00E+00	0,00E+00
Materials for energy recovery	kg	3,60E-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
Exported energy, electricity	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	-4,88E-01
Exported energy, thermal	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	-6,58E+00

The result tables shall only contain values or the letters "ND" (Not Declared). It is not possible to specify ND for mandatory indicators. ND shall only be used for voluntary parameters that are not quantified because no data is available.

Other environmental performance indicators

Additional environmental information

References

ČSN ISO 14025:2010 Environmentální značky a prohlášení - Environmentální prohlášení typu III - Zásady a postupy (Environmental labels and declarations - Type III environmental declarations - Principles and procedures)
ČSN EN 15804+A2:2020 Udržitelnost staveb - Environmentální prohlášení o produktu - Zásadní pravidla pro produktovou kategorii stavebních výrobků (Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products)
ČSN EN ISO 14040:2006 Environmentální management - Posuzování životního cyklu - Zásady a osnova (Environmental management - Life Cycle Assessment - Principles and Framework)
ČSN EN ISO 14044:2006 Environmentální management - Posuzování životního cyklu – Požadavky a směrnice (Environmental management - Life Cycle Assessment – Requirements and guidelines)
ČSN ISO 14063:2007 Environmentální management - Environmentální komunikace - Směrnice a příklady (Environmental management - Environmental communication - Guidelines and examples)
ČSN EN 15643-1:2011 Udržitelnost staveb - Posuzování udržitelnosti budov - Část 1: Obecný rámec (Sustainability of construction works - Sustainability assessment of buildings - Part 1: General framework)
ČSN EN 15643-2:2011 Udržitelnost staveb - Posuzování udržitelnosti budov - Část 2: Rámec pro posuzování environmentálních vlastností (Sustainability of construction works - Assessment of buildings - Part 2: Framework for the assessment of environmental performance)
ČSN EN 15942:2013 Udržitelnost staveb - Environmentální prohlášení o produktu - Formát komunikace mezi podniky (Sustainability of construction works - Environmental product declarations - Communication format business-to-business)
TNI CEN/TR 15941:2012 Udržitelnost staveb - Environmentální prohlášení o produktu - Metodologie výběru a použití generických dat (Sustainability of construction works - Environmental product declarations - Methodology for selection and use of generic data)
ČSN EN 16449:2014 Dřevo a výrobky na bázi dřeva - Výpočet obsahu biogenního uhlíku ve dřevě a přeměny na oxid uhličitý (Wood and wood-based products - Calculation of the biogenic carbon content of wood and conversion to carbon dioxide)
ILCD handbook - JRC EU, 2011
Zákon č. 541/2020 Sb. v platném znění (Zákon o odpadech); Act No. 541/2020 Coll., as amended (Waste Act)
Vyhláška č. 8/2021 Sb. Katalog odpadů – Katalog odpadů, (Decree No. 8/2021 Coll. Waste catalogue – Waste catalogue)
Nařízení Evropského parlamentu č. 1907/2006 o registraci, hodnocení, povolování a omezování chemických látek a o zřízení Evropské agentury pro chemické látky - REACH (registrace, evaluace a autorizace chemických látek); (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)
Nařízení Evropského parlamentu a Rady (ES) č. 1272/2008 o klasifikaci, označování a balení látek a směsí, o změně a zrušení směrnic 67/548/EHS a 1999/45/ES a o změně nařízení (ES) č. 1907/2006 (nařízení CLP),
SimaPro LCA Package, Pré Consultants, the Netherlands, www.pre-sustainability.com
Ecoinvent Centre, www.Ecoinvent.org
Explanatory documents are available from the head of Technical Support of the EPD owner.