ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

INLOOK SLIDY 36 - sound insulating sliding glass wall with aluminium frames
Inlook Oy

EPD HUB, HUB-0819
Publishing date 3rd November 2023, last updated date 3rd November 2023, valid until 3rd November 2028

GENERAL INFORMATION

MANUFACTURER

Manufacturer	Inlook Oy
Address	Sahaajankatu 1, 00880 Helsinki
Contact details	info@inlook.fi
Website	https://www.inlook.fi

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR version 1.0, 1 Feb 2022
Sector	Construction product
Category of EPD	Third-party verified EPD
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Riikka Anttonen, Laura Sariola, Afry Finland Oy
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal certification ☐ External verification
EPD verifier	Haiha Nguyen, as an authorized verifier acting for EPD Hub Limited

The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

PRODUCT

Product name	INLOOK SLIDY 36 glass wall with sliding door and aluminium frames
Place of production	Finland, Estonia (powder coating)
Period for data	1.10.2021 - 30.9.2022

ENVIRONMENTAL DATA SUMMARY

Declared unit	One piece of wall system with sliding door (7,02 m^2)
Declared unit mass	231 kg
GWP-fossil, A1-A3 (kgCO2e)	4,54E+02
GWP-total, A1-A3 (kgCO2e)	4,53E+02
Secondary material, inputs (%)	36.8
Secondary material, outputs (%)	62.7
Total energy use, A1-A3 (kWh)	2110.0
Total water use, A1-A3 (m3e)	6,97E0

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Inlook is a Finnish company specialized in interior construction. Its range of services includes solutions for new construction, renovation, demanding special projects, main contracting and material selling as well as industrial powder coating.

INLOOK glass wall systems provide a practical working environment with a highly customizable look. The glass walls create the sense of open space but offer the possibility for privacy when needed. Fine-tuned details ensure a stylish and functional result. A wide range of products and a versatile choice of colours / surfaces allow for a variety of styles available for each solution. INLOOK glass wall systems are typically used in offices and commercial premises.

PRODUCT DESCRIPTION

INLOOK SLIDY 36 dB is a sound insulating glass wall system with a sliding door specially designed for rooms with high requirements for sound insulation. The reference product consists of a single solid glass wall and a sliding glass door with sound control membrane and powder coated aluminium profiles. In addition, the product contains parts such as wheels, handle and seals.

Technical specifications are as follows:
- dimensions 2650 x 2650 mm x 120 mm (width x height x depth)
- glass thickness 6+6 mm (solid wall and sliding door)
- PVB (PolyVinyl Butyral) interlayer for sound control (0,76 mm)
- specially manufactured dB seals, rubber glass seals
- sound insulation class RW 36 dB; Eurofins-test number S-05187-18

Further information can be found at https://www.inlook.fi

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals	14	EU
Minerals	85	EU
Fossil materials	1	EU
Bio-based materials	<1	EU

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0
Biogenic carbon content in packaging, kg C	1.0

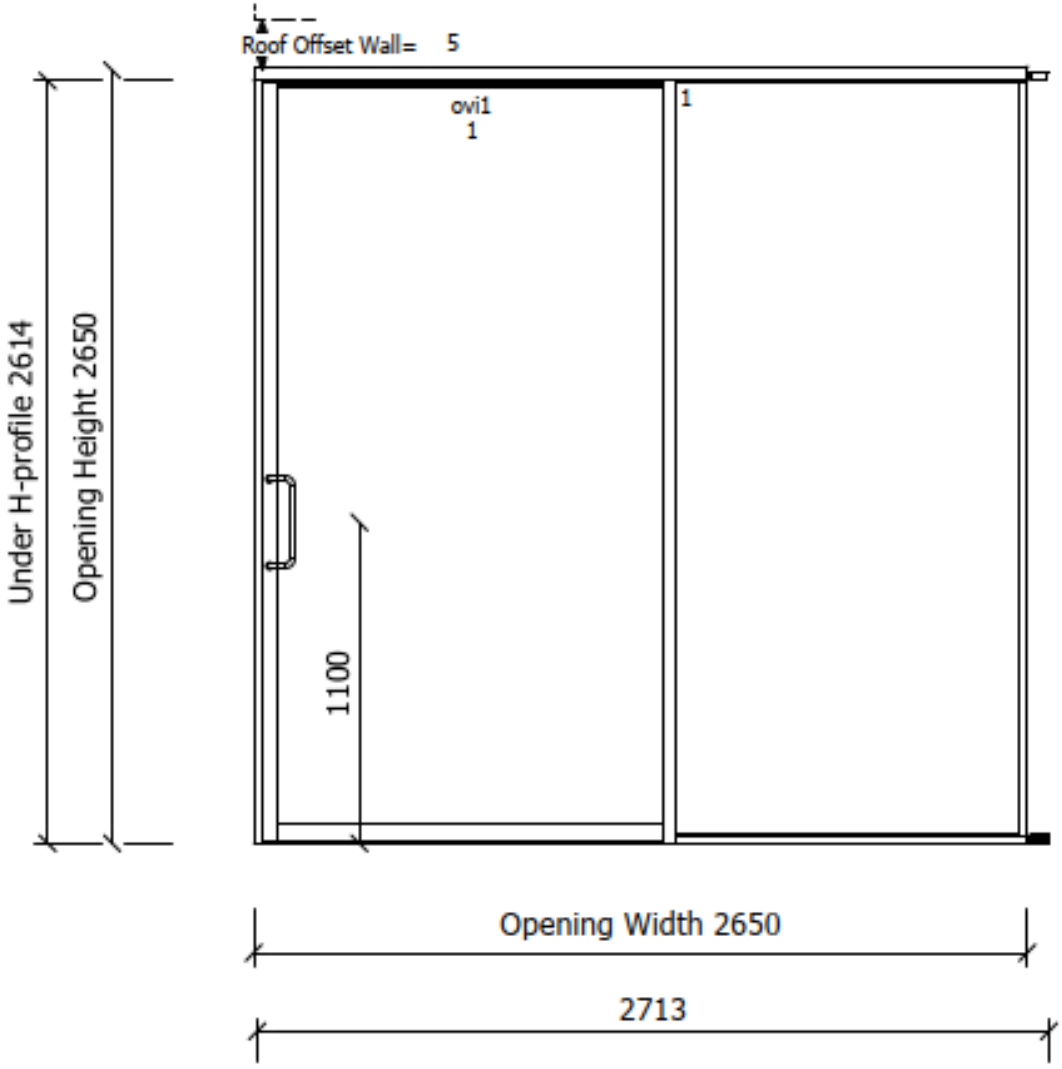
FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	One piece of wall system with sliding door (7,02 m^2)
Mass per declared unit	231 kg

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).

TECHNICAL DRAWING



PRODUCT LIFE-CYCLE

SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D		
x	x	x	x	x	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstr./demol.	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

The product consists of a solid glass wall and a sliding glass door with aluminium frames (A1). The glass is pre-laminated (PVB) glass, which is manufactured in Europe and purchased cut-to-size from a supplier. Aluminium profiles are made of secondary aluminium which consists of 41 % post-consumer scrap and 59 % pre-consumer scrap. Small parts such as wheels and gaskets are added during the assembly phase.

For raw material transports (A2) an occupancy rate of 50% is assumed for road haulage and 100% for sea transport.

The manufacturing process (A3) includes powder coating of aluminium profiles in Tallinn and machining and assembly in Helsinki. An estimate of the energy consumption of glass cutting (subcontracted) is included. The powder coating uses electricity, gas and fuels. Auxiliary chemicals are used in the pre-treatment of the profiles. The painted profiles are delivered to the assembly plant in Helsinki on request. In the assembly stage, profiles and glasses are combined into finished elements. The machining and assembly phase consumes energy and fuels. Packaging materials (plastics, wood) are accounted for except for glass racks which are acquired as a service. The production generates different types of production waste: landfilled waste from waste paint, energy waste from e.g. plastic raw material packages and seal shreds and recyclable waste from cardboard packages and aluminium machining (scrap). The transportation distance to treatment is approximately from 15 to 20 km except for aluminium scrap for which the distance to treatment is approximately 125 km.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

The average transport distance to the site (A4) is 125 km by lorry, calculated as a weighted average considering the sales shares of the regional offices. Transportation volume includes packaging materials, also glass racks. An occupancy rate of 50% is assumed for product delivery. Transportation losses are assessed as insignificant (<1%).

The estimated installation (A5) time (2-3h) is based on site experience. The installation is done with a 5Ah electric tool and energy consumption is estimated based on the battery charge level before and after installation. Installation generates waste for energy recovery (sealing shreds, plastic and wooden packages) and recycling (aluminium clippings). The estimated transport distance to waste treatment is 20 km.

PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover the use phase.
Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

At the end of the life cycle, the product is dismantled. The impacts cover the use of energy to dismantle the product with an electric drill (C1). The dismantled waste material is transported to the closest facility for recycling (C2). The assumption for an average distance and transport method is estimated to be 20 km by truck. The aluminium frame is easy to dismantle separately, so the maximum recycling rate (96%) is assumed (Alliance for Aluminium DACH). For other steel/metal parts 85% recycling rate is assumed (World Steel Association). The national average recycling rate of construction waste (56%) has been used for the laminated flat glass. Sorted glass is assumed to be recycled to the production of glass wool. (C3). The remaining 44% of glass waste and 10% of mixed construction waste (sealant scraps, plugs, etc.) is expected to be landfilled (C4).

The benefits of material recycling (glass, aluminium) and energy recovery of packages are accounted for in module D.

References for recycling rates:

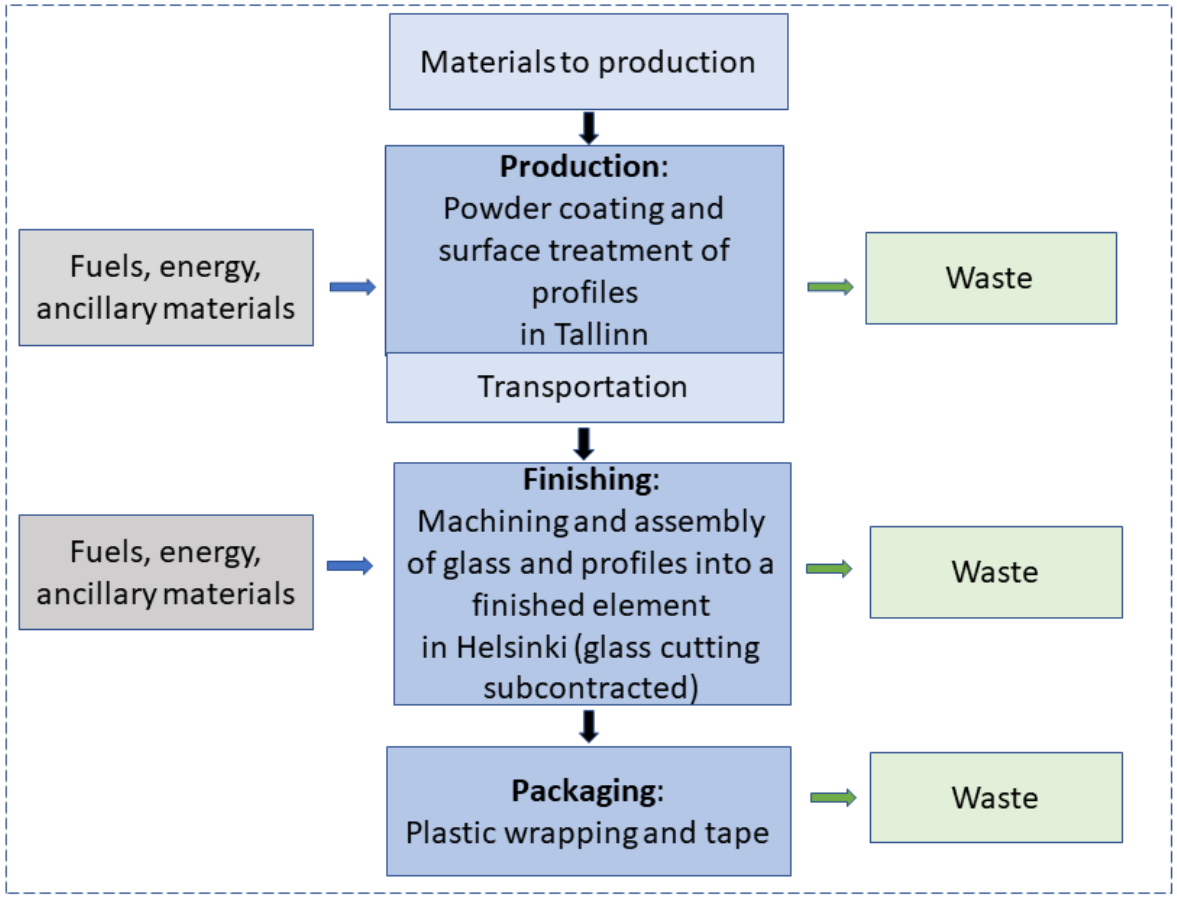
https://worldsteel.org/

https://teknologiateollisuus.fi/

https://www.stat.fi/tietotrendit/

MANUFACTURING PROCESS

System boundary in A1-A3 modules (AL-profiles)



LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	Partly allocated by mass/volume and partly by revenue
Packaging materials	Allocated by revenue
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

This EPD is product and factory specific and does not contain average calculations.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. Ecoinvent and One Click LCA databases were used as sources of environmental data.

ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total[1)]	kg CO_2e	3,95E+02	1,27E+01	4,57E+01	4,53E+02	1,08E+01	4,28E+00	MND	MND	MND	MND	MND	MND	MND	6,53E-02	1,51E+00	9,14E+00	8,17E-01	-5,90E+01
GWP – fossil	kg CO_2e	3,93E+02	1,27E+01	4,92E+01	4,54E+02	1,08E+01	6,64E-01	MND	MND	MND	MND	MND	MND	MND	6,48E-02	1,51E+00	9,13E+00	8,16E-01	-5,76E+01
GWP – biogenic	kg CO_2e	0,00E+00	0,00E+00	-3,61E+00	-3,61E+00	0,00E+00	3,61E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
GWP – LULUC	kg CO_2e	2,46E+00	5,64E-03	9,49E-02	2,56E+00	4,31E-03	1,84E-03	MND	MND	MND	MND	MND	MND	MND	5,86E-04	6,03E-04	4,15E-03	7,51E-04	-1,46E+00
Ozone depletion pot.	kg CFC_{-11}e	9,55E-05	3,04E-06	7,53E-06	1,06E-04	2,50E-06	4,33E-08	MND	MND	MND	MND	MND	MND	MND	3,65E-09	3,49E-07	3,93E-07	2,72E-07	-5,76E-06
Acidification potential	mol H^+e	2,10E+00	8,13E-02	3,40E-01	2,52E+00	3,07E-02	2,93E-03	MND	MND	MND	MND	MND	MND	MND	2,63E-04	4,28E-03	2,85E-02	7,24E-03	-3,89E-01
EP-freshwater[2)]	kg Pe	7,43E-02	9,10E-05	1,00E-03	7,53E-02	7,70E-05	1,16E-05	MND	MND	MND	MND	MND	MND	MND	2,44E-06	1,08E-05	1,74E-04	1,06E-05	-3,18E-03
EP-marine	kg Ne	3,97E-01	1,89E-02	5,99E-02	4,76E-01	6,12E-03	7,64E-04	MND	MND	MND	MND	MND	MND	MND	4,42E-05	8,54E-04	4,23E-03	2,90E-03	-4,20E-02
EP-terrestrial	mol Ne	4,67E+00	2,10E-01	5,77E-01	5,45E+00	6,79E-02	8,47E-03	MND	MND	MND	MND	MND	MND	MND	5,29E-04	9,49E-03	4,89E-02	2,79E-02	-4,63E-01
POCP ("smog")[3)]	kg NMVOCe	1,28E+00	6,57E-02	1,78E-01	1,52E+00	2,61E-02	2,26E-03	MND	MND	MND	MND	MND	MND	MND	1,41E-04	3,65E-03	1,40E-02	8,09E-03	-1,74E-01
ADP-minerals & metals[4)]	kg Sbe	2,03E-03	3,70E-05	8,78E-05	2,16E-03	3,90E-05	7,10E-06	MND	MND	MND	MND	MND	MND	MND	2,60E-07	5,45E-06	3,12E-04	2,69E-06	-6,28E-05
ADP-fossil resources	MJ	5,82E+03	1,96E+02	7,71E+02	6,79E+03	1,61E+02	7,36E+00	MND	MND	MND	MND	MND	MND	MND	1,96E+00	2,24E+01	5,22E+01	1,96E+01	-9,16E+02
Water use[5)]	m^3e depr.	1,03E+04	9,15E-01	9,14E+00	1,03E+04	7,52E-01	2,99E-01	MND	MND	MND	MND	MND	MND	MND	4,19E-02	1,05E-01	1,43E+00	9,04E-02	-1,18E+02

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy[8)]	MJ	5,46E+02	2,66E+00	1,47E+02	6,96E+02	2,34E+00	1,17E+00	MND	MND	MND	MND	MND	MND	MND	4,78E-01	3,26E-01	6,76E+00	2,34E-01	-3,77E+02
Renew. PER as material	MJ	1,60E+02	0,00E+00	2,89E+01	1,89E+02	0,00E+00	-2,89E+01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	-1,52E+02	-7,89E+00	0,00E+00
Total use of renew. PER	MJ	7,06E+02	2,66E+00	1,76E+02	8,85E+02	2,34E+00	-2,77E+01	MND	MND	MND	MND	MND	MND	MND	4,78E-01	3,26E-01	-1,45E+02	-7,65E+00	-3,77E+02
Non-re. PER as energy	MJ	5,94E+03	1,96E+02	7,63E+02	6,90E+03	1,61E+02	7,36E+00	MND	MND	MND	MND	MND	MND	MND	1,96E+00	2,24E+01	5,22E+01	1,96E+01	-9,17E+02
Non-re. PER as material	MJ	3,24E+02	0,00E+00	3,14E+00	3,27E+02	0,00E+00	-3,14E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	-3,05E+02	-1,85E+01	0,00E+00
Total use of non-re. PER	MJ	6,26E+03	1,96E+02	7,66E+02	7,22E+03	1,61E+02	4,21E+00	MND	MND	MND	MND	MND	MND	MND	1,96E+00	2,24E+01	-2,53E+02	1,09E+00	-9,17E+02
Secondary materials	kg	8,50E+01	6,47E-02	9,48E-02	8,51E+01	5,47E-02	2,70E-03	MND	MND	MND	MND	MND	MND	MND	1,33E-04	7,64E-03	3,15E-02	6,80E-03	-9,58E-02
Renew. secondary fuels	MJ	1,29E+00	5,71E-04	3,42E-03	1,29E+00	6,02E-04	3,59E-05	MND	MND	MND	MND	MND	MND	MND	5,73E-07	8,40E-05	1,08E-03	1,24E-04	-3,67E-03
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of net fresh water	m^3	6,60E+00	2,55E-02	3,43E-01	6,97E+00	2,05E-02	4,27E-03	MND	MND	MND	MND	MND	MND	MND	1,73E-03	2,86E-03	4,21E-02	2,18E-02	-2,61E+00

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	1,24E+02	2,28E-01	1,36E+00	1,26E+02	1,83E-01	2,71E-02	MND	MND	MND	MND	MND	MND	MND	4,20E-03	2,55E-02	6,61E-01	0,00E+00	-1,52E+01
Non-hazardous waste	kg	1,34E+02	3,80E+00	3,48E+01	1,73E+02	3,25E+00	3,23E+00	MND	MND	MND	MND	MND	MND	MND	1,04E-01	4,53E-01	3,89E+01	8,63E+01	-1,73E+02
Radioactive waste	kg	6,17E-02	1,35E-03	4,92E-03	6,80E-02	1,11E-03	5,83E-05	MND	MND	MND	MND	MND	MND	MND	2,06E-05	1,54E-04	2,31E-04	0,00E+00	-5,99E-03

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	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	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	2,31E+01	0,00E+00	2,09E+00	2,52E+01	0,00E+00	6,07E-01	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	1,41E+02	0,00E+00	0,00E+00
Materials for energy rec	kg	5,63E-01	0,00E+00	0,00E+00	5,63E-01	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Exported energy	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	MND	MND	MND	MND	MND	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO_2e	3,42E+02	1,26E+01	4,86E+01	4,03E+02	1,07E+01	6,59E-01	MND	MND	MND	MND	MND	MND	MND	6,41E-02	1,49E+00	9,09E+00	9,71E-01	-5,71E+01
Ozone depletion Pot.	kg CFC_{11}e	1,04E-04	2,41E-06	6,22E-06	1,13E-04	1,98E-06	3,56E-08	MND	MND	MND	MND	MND	MND	MND	3,19E-09	2,77E-07	3,31E-07	2,16E-07	-4,95E-06
Acidification	kg SO_2e	1,55E+00	6,55E-02	2,87E-01	1,90E+00	2,52E-02	2,32E-03	MND	MND	MND	MND	MND	MND	MND	2,16E-04	3,51E-03	2,38E-02	5,45E-03	-3,36E-01
Eutrophication	kg PO_4^3e	3,95E-01	1,04E-02	4,69E-02	4,53E-01	5,43E-03	9,54E-04	MND	MND	MND	MND	MND	MND	MND	9,42E-05	7,58E-04	1,04E-02	2,15E-03	-1,27E-01
POCP (“smog”)	kg C_2H_4e	1,00E-01	2,31E-03	1,23E-02	1,15E-01	1,27E-03	8,54E-05	MND	MND	MND	MND	MND	MND	MND	9,80E-06	1,77E-04	1,07E-03	2,26E-04	-3,45E-02
ADP-elements	kg Sbe	1,84E-03	3,61E-05	8,62E-05	1,97E-03	3,81E-05	7,06E-06	MND	MND	MND	MND	MND	MND	MND	2,63E-07	5,32E-06	3,11E-04	2,60E-06	-4,76E-05
ADP-fossil	MJ	5,45E+03	1,96E+02	7,58E+02	6,40E+03	1,61E+02	7,15E+00	MND	MND	MND	MND	MND	MND	MND	1,85E+00	2,24E+01	5,22E+01	1,96E+01	-9,14E+02

VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

HaiHa Nguyen, as an authorized verifier acting for EPD Hub Limited
03.11.2023

VERIFIED ISO 14025

ANNEX 1: CARBON FOOTPRINT DATA FOR DIFFERENT GLASS THICKNESS

The reference product is available in different glass thicknesses. Corresponding gwp -values are presented in the table below.

Product	GWP (kg CO2e)	A1	A2	A3	A1-A3	A4	A5	C1	C2	C3	C4	D
Reference												
Slidy 36 (wall 6+6 mm, door 6+6 mm)	*total*	3,95E+02	1,27E+01	4,57E+01	4,53E+02	1,08E+01	4,28E+00	6,53E-02	1,51E+00	9,14E+00	8,17E-01	-5,90E+01
	fossil	3,93E+02	1,27E+01	4,92E+01	4,54E+02	1,08E+01	6,64E-01	6,48E-02	1,51E+00	9,13E+00	8,16E-01	-5,76E+01
Variant												
Slidy 36 (wall 5+5 mm, door 5+5 mm)	*total*	3,54E+02	1,15E+01	4,57E+01	4,11E+02	9,70E+00	4,28E+00	6,53E-02	1,33E+00	9,06E+00	7,05E-01	-5,92E+01
	fossil	3,52E+02	1,15E+01	4,92E+01	4,13E+02	9,69E+00	6,64E-01	6,48E-02	1,33E+00	9,06E+00	7,05E-01	-5,77E+01
Slidy 36 (wall 8+8 mm, door 6+6 mm)	*total*	4,34E+02	1,39E+01	4,57E+01	4,94E+02	1,23E+01	4,28E+00	6,53E-02	1,75E+00	9,23E+00	9,67E-01	-5,89E+01
	fossil	4,32E+02	1,39E+01	4,92E+01	4,95E+02	1,23E+01	6,64E-01	6,48E-02	1,75E+00	9,23E+00	9,66E-01	-5,74E+01

The difference in glass thickness compared to the reference product is considered as follows:
A1: The amount of glass as raw material (no effect on the consumption of other raw materials)
A2: Transported quantity (raw material)
A3: No effect (For glass cutting, the effect of the change in glass thickness could not be reliably assessed so the data of the reference product has been used)
A4: Transported quantity (finished element)
A5: No effect (Glass thickness does not affect the assembly)
C1: No effect (Glass thickness does not affect the deconstruction)
C2-C4: The amount of glass waste
D: The amount of glass in the evaluation of effects beyond the system boundaries