

structo WALL
SYSTEMS

ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH
EN 15804+A2 & ISO 14025

GLASS DOORS



Structo Group OÜ



GENERAL INFORMATION

MANUFACTURER INFORMATION

Manufacturer	Structo Group OÜ
Address	Sära tee 11-6, Peetri, 75312, Estonia
Contact details	Heiko Saava +372 50 44 791 heiko@structo.ee
Website	www.structo.ee

PRODUCT IDENTIFICATION

Product name	Glass Doors: PORTA-53G ALUSLIDE-12
Place(s) of production	Estonia



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The Building Information Foundation RTS sr

EPDs within the same product category but from different programmes may not be comparable.

EPD INFORMATION

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

EPD program operator	The Building Information Foundation RTS sr/ Building Information Ltd Malminkatu 16 A,
EPD standards	This EPD is in accordance with EN 15804+A2 and ISO 14025 standards.
Product category rules	The CEN standard EN 15804 serves as the core PCR. In addition, the RTS PCR (English version, 26.8.2020) is used.
EPD author	Mari Kirss and Anni Oviir Rangi Maja OÜ Tondi 22-4, Tallinn Estonia www.lcasupport.com
EPD verification	Independent verification of this EPD and data, according to ISO 14025: <input type="checkbox"/> Internal certification <input checked="" type="checkbox"/> External verification
Verification date	5 August 2021
EPD verifier	Silvia Vilčeková, Silcert, s.r.o.
EPD number	RTS_143_21
Publishing date	07.09.2021
EPD valid until	16.08.2026

PRODUCT INFORMATION

PRODUCT DESCRIPTION

PORTA-53G is a glass door with aluminum frame.
ALUSLIDE-12 is a glass sliding door with top rail.

PRODUCT APPLICATION

Glass doors are interior elements that are mainly used in office buildings. They can be combined with different glass walls to create exciting and functional results.

PHYSICAL PROPERTIES OF THE PRODUCT

Product properties can be found on the manufacturer website at www.structo.ee

TECHNICAL SPECIFICATIONS

For this assessment one square meter of product shall be used.

Product	Width, mm	Height, mm	Door frame width, mm	Door frame height, mm	Element thickness, mm	Weight, kg
PORTA-53G	-	-	925	2259	54	30
ALUSLIDE-12	1030	2304	-	-	48	27

ADDITIONAL TECHNICAL INFORMATION

Further information can be found at www.structo.ee

SUBSTANCES, REACH - VERY HIGH CONCERN

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

PRODUCT RAW MATERIAL COMPOSITION

	Quantity, mass %		Usability			Origin of the raw materials
	PORTA-53G	ALUSLIDE-12	Re-newable	Non-renewable	Recycled	
Glass	74	84		X		non-EU
Aluminum	23	13		X		EU & non-EU
Steel	2	2		X		EU & non-EU
Other materials	1	1		X		EU & non-EU
TOTAL	100	100				

Raw material category	Amount, mass- %		Material origin
	PORTA-53G	ALUSLIDE-12	
Metals	25	15	EU & non-EU
Minerals	74	85	non-EU
Fossil materials	<1	<1	EU & non-EU
Bio-based materials	-	-	-
TOTAL	100	100	



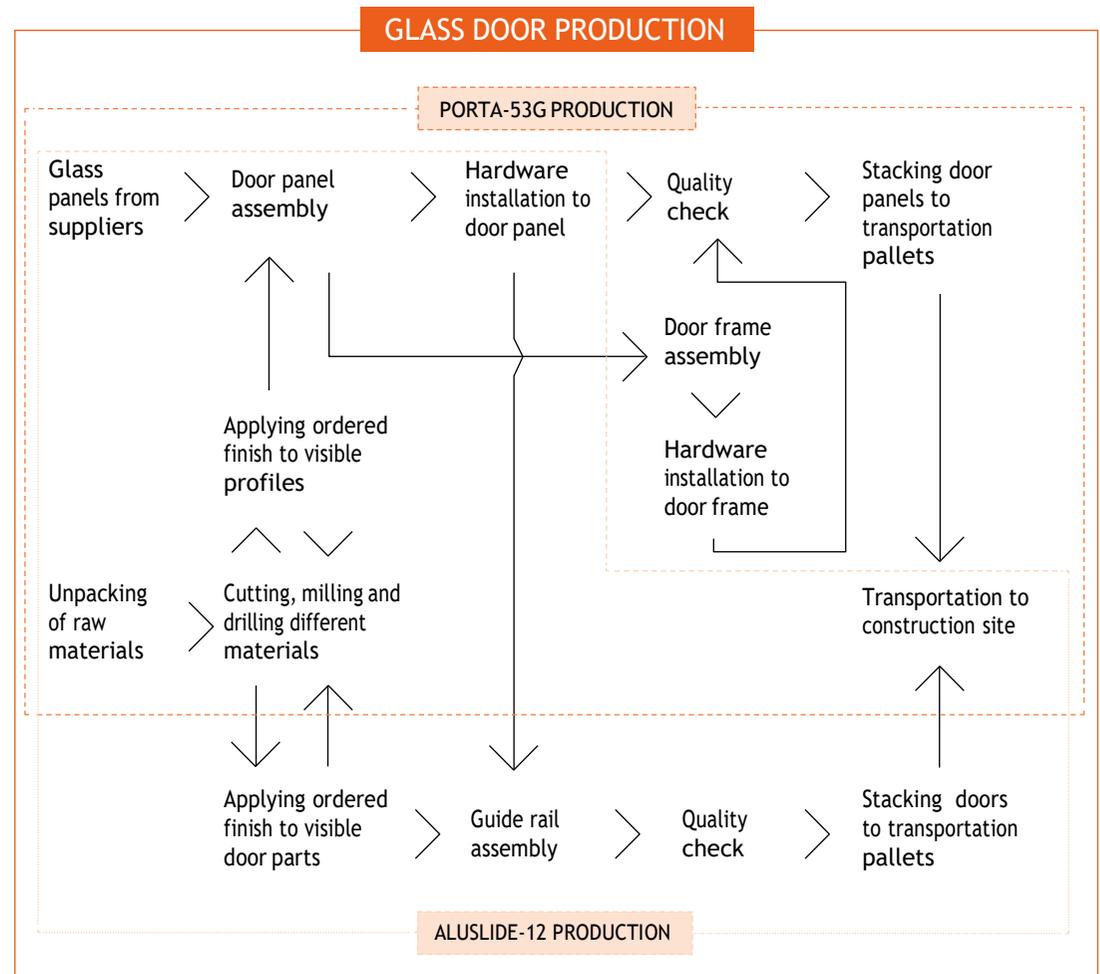
PRODUCT LIFE-CYCLE

MANUFACTURING AND PACKAGING (A1-A3)

PORTA-53G production begins with unpacking the raw materials. After that, the profiles are processed, get the selected finish and are sent to the assembly line. When the glass panels have arrived from the suppliers, the profiles are assembled into door panels and frames. Hardware and seals will be fixed to the door panels and frames. Before packing and stacking the door panels to transportation pallets, final quality checks will be conducted and the products will be ready for transportation to the construction site.

ALUSLIDE-12 production begins with unpacking the raw materials. After that, the profiles are processed, get the selected finish and are sent to the assembly line. When the glass panels have arrived from the suppliers, the profiles are assembled into door panels. Hardware and rollers will be fixed to door panels and guide rails will be assembled. Before packing and stacking the doors to transportation pallets, final quality checks will be concluded and the finished product will be sent to the construction site.

MANUFACTURING PROCESS:



TRANSPORT (A4)

Transportation impacts occurred from final product's delivery to construction site cover direct exhaust emissions of fuel, environmental impacts of fuel production, as well as related infrastructure emissions.

PRODUCT END OF LIFE (C1-C4, D)

At the end-of-life, in the demolition phase end-of-life product is collected as mixed waste (C1) and is assumed to be sent (C2) to recycling (C3). Less than 1% is sent to landfill (C4). Due to the recycling potential of aluminum, some of the end-of-life product is converted into recycled raw materials (D).



LIFE-CYCLE ASSESSMENT

LIFE-CYCLE ASSESSMENT INFORMATION

Period for data 2020

DECLARED AND FUNCTIONAL UNIT

Declared unit 1 m²

Mass per declared unit 27 - 30 kg

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C 7.13

Biogenic carbon content in packaging, kg C 0.72 - 0.79

SYSTEM BOUNDARY

This EPD covers the cradle to gate with options scope with following modules; A1 (Raw material supply), A2 (Transport) and A3 (Manufacturing), A4 (Transport), as well as C1 (Deconstruction), C2 (Transport at end-of-life), C3 (Waste processing) and C4 (Disposal). In addition, module D - benefits and loads beyond the system boundary is included.

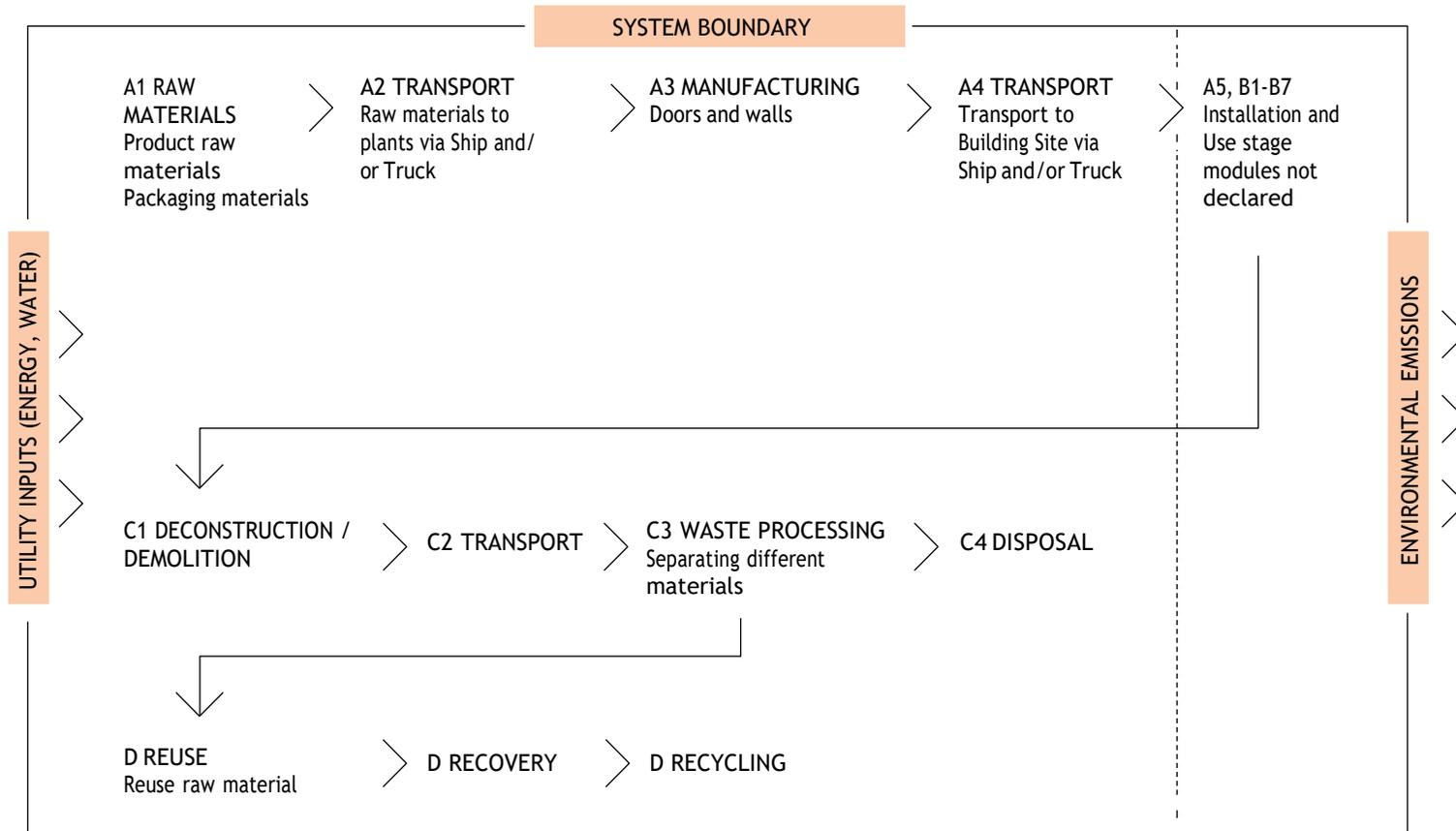
Product stage			Assembly stage					Use stage					End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	D	D	
x	x	x	x	MND	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x	x	x	

Geography, by two-letter ISO country code or regions. The International EPD System only.

Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstr. / demolition	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling
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Modules not declared = MND

LIFE CYCLE STAGES DIAGRAM:



CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the EN 15804:2012+A2:2019 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

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation.

In this study, as per EN 15804, allocation is conducted in the following order;

1. Allocation should be avoided.
2. Allocation should be based on physical properties (e.g. mass, volume) when the difference in revenue is small.
3. Allocation should be based on economic values.

Allocation used in Ecoinvent 3.6 environmental data sources follows the methodology 'allocation, cut-off by classification'. This methodology is in line with the requirements of the EN 15804 -standard.

ESTIMATES AND ASSUMPTIONS

This LCA study is conducted in accordance with all methodological considerations, such as performance, system boundaries, data quality, allocation procedures, and decision rules to evaluate inputs and outputs. All estimations and assumptions are given below:

Module A4: The transportation distance is defined according to RTS PCR. It was assumed that typical installation place is situated in Stockholm, Sweden. Average distance of transportation from production plant to building site is equal to 460 km. Transportation method is assumed to be ferry and lorry. The transportation doesn't cause losses as products are packaged properly. Also, volume capacity utilisation factor is assumed to be 1 for the nested packaged products.

Module C1: Energy consumption of demolition process is on the average 0 kWh/m². It is assumed no machinery is needed for the process.

Module C2: It is estimated that there is no mass loss during the use of the product, therefore the end-of-life product is assumed that it has the same weight with the declared product. All of the end-of-life product is assumed to be sent to the closest facilities such as recycling and landfill. Transportation distance to the closest disposal area is estimated as 15 km and the transportation method is assumed as lorry which is the most common.

Module A2, A4 & C2: Vehicle capacity utilization volume factor is assumed to be 1 which means full load. In reality, it may vary but as role of transportation emission in total results is small and so the variety in load assumed to be negligible. Empty returns are not taken into account as it is assumed that return trip is used by transportation company to serve needs of other clients.

Module C3: It is assumed that over 99% of total waste is recycled or incinerated for heat production. This assumption was based on information from industry associations. App. 95% of metals, 70% of glass is recycled. 98% of other waste is incinerated for heat generation. The process losses of the waste treatment plant are assumed to be negligible.

Module C4: The remaining less than 1% of is assumed to be sent to landfill.

Module D: The recycled end-of-life product is assumed to be converted into a raw material after recycling.

ENVIRONMENTAL IMPACT DATA

Note: ENVIRONMENTAL IMPACTS - EN 15804+A1, CML / ISO 21930 are presented in annex.

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

- 1) GWP = Global Warming Potential; EP = Eutrophication potential; POCP = Photochemical ozone formation; ADP = Abiotic depletion potential.
- 2) 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 experienced with the indicator.
- 3) Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e.

PORTA-53G - CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1-A3	A4	C1	C2	C3	C4	D
GWP - total	kg CO2e	9,99E1	1,54E0	0E0	7,53E-2	7,32E0	2,13E-4	-5,56E1
GWP - fossil	kg CO2e	1,01E2	1,55E0	0E0	7,52E-2	6,6E0	2,11E-4	-5,54E1
GWP - biogenic	kg CO2e	-1,29E0	1,48E-4	0E0	4,01E-5	7,13E-1	1,7E-6	-8,43E-2
GWP - LULUC	kg CO2e	1,86E-1	7,9E-4	0E0	2,67E-5	6,52E-3	1,01E-7	-1,33E-1
Ozone depletion pot.	kg CFC11e	8,12E-6	3,3E-7	0E0	1,71E-8	5,6E-7	6,54E-11	-3,32E-6
Acidification potential	mol H+e	7,5E-1	3,59E-2	0E0	3,07E-4	3,27E-2	1,8E-6	-4,11E-1
EP-freshwater ³⁾	kg Pe	3,39E-3	8,57E-6	0E0	6,29E-7	2,56E-4	3,69E-9	-2,15E-3
EP-marine	kg Ne	1,27E-1	9,06E-3	0E0	9,13E-5	6,2E-3	6,09E-7	-6,38E-2
EP-terrestrial	mol Ne	1,46E0	1,01E-1	0E0	1,01E-3	7,2E-2	6,71E-6	-7,41E-1
POCP (“smog”)	kg NMVOCe	4,13E-1	2,64E-2	0E0	3,09E-4	1,97E-2	1,94E-6	-2,12E-1
ADP-minerals & metals	kg Sbe	2,51E-2	1,58E-5	0E0	2,03E-6	2,62E-2	2,26E-9	5,78E-3
ADP-fossil resources	MJ	1,15E3	2,13E1	0E0	1,13E0	6,91E1	4,95E-3	-6,06E2
Water use ²⁾	m3e depr.	2,47E1	5,53E-2	0E0	3,65E-3	5,91E0	2,22E-4	-9,26E0

ALUSLIDE-12 - CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1-A3	A4	C1	C2	C3	C4	D
GWP - total	kg CO2e	6,66E1	1,34E0	0E0	6,67E-2	3,9E0	1,06E-4	-3,52E1
GWP - fossil	kg CO2e	6,83E1	1,35E0	0E0	6,67E-2	3,49E0	1,05E-4	-3,5E1
GWP - biogenic	kg CO2e	-1,81E0	1,29E-4	0E0	3,56E-5	4,03E-1	8,52E-7	-9,14E-2
GWP - LULUC	kg CO2e	1,01E-1	6,88E-4	0E0	2,36E-5	3,34E-3	5,06E-8	-6,99E-2
Ozone depletion pot.	kg CFC11e	6,34E-6	2,87E-7	0E0	1,51E-8	3,22E-7	3,27E-11	-2,45E-6
Acidification potential	mol H+e	5,38E-1	3,13E-2	0E0	2,72E-4	1,75E-2	8,99E-7	-2,87E-1
EP-freshwater ³⁾	kg Pe	2,12E-3	7,47E-6	0E0	5,58E-7	1,31E-4	1,84E-9	-1,27E-3
EP-marine	kg Ne	9E-2	7,89E-3	0E0	8,1E-5	3,49E-3	3,05E-7	-4,45E-2
EP-terrestrial	mol Ne	1,05E0	8,77E-2	0E0	8,94E-4	4,04E-2	3,36E-6	-5,25E-1
POCP (“smog”)	kg NMVOCe	2,88E-1	2,3E-2	0E0	2,74E-4	1,11E-2	9,69E-7	-1,44E-1
ADP-minerals & metals	kg Sbe	1,51E-2	1,38E-5	0E0	1,8E-6	1,32E-2	1,13E-9	2,64E-3
ADP-fossil resources	MJ	7,95E2	1,85E1	0E0	1,01E0	3,77E1	2,48E-3	-3,84E2
Water use ²⁾	m3e depr.	1,66E1	4,82E-2	0E0	3,24E-3	3,02E0	1,11E-4	-6,4E0

USE OF NATURAL RESOURCES

4) PER abbreviation stands for primary energy resources.

PORTA-53G - USE OF NATURAL RESOURCES

Impact category	Unit	A1-A3	A4	C1	C2	C3	C4	D
Renew. PER as energy	MJ	1,14E2	1,85E-1	0E0	1,6E-2	7,07E0	8,17E-5	-6,8E1
Renew. PER as material	MJ	3,34E1	0E0	0E0	0E0	0E0	0E0	0E0
Total use of renew. PER	MJ	1,47E2	1,85E-1	0E0	1,6E-2	7,07E0	8,17E-5	-6,8E1
Non-re. PER as energy	MJ	1,15E3	2,13E1	0E0	1,13E0	6,91E1	4,95E-3	-6,06E2
Non-re. PER as material	MJ	4,78E-1	0E0	0E0	0E0	0E0	0E0	0E0
Total use of non-re. PER	MJ	1,15E3	2,13E1	0E0	1,13E0	6,91E1	4,95E-3	-6,06E2
Secondary materials	kg	6,58E0	0E0	0E0	0E0	0E0	0E0	-5E0
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m3	6,99E-1	2,88E-3	0E0	1,94E-4	2,54E-1	5,6E-6	-2,13E-1

ALUSLIDE-12 - USE OF NATURAL RESOURCES

Impact category	Unit	A1-A3	A4	C1	C2	C3	C4	D
Renew. PER as energy	MJ	7,29E1	1,61E-1	0E0	1,42E-2	3,61E0	4,09E-5	-3,94E1
Renew. PER as material	MJ	3,06E1	0E0	0E0	0E0	0E0	0E0	0E0
Total use of renew. PER	MJ	1,03E2	1,61E-1	0E0	1,42E-2	3,61E0	4,09E-5	-3,94E1
Non-re. PER as energy	MJ	7,94E2	1,85E1	0E0	1,01E0	3,77E1	2,48E-3	-3,84E2
Non-re. PER as material	MJ	1,31E0	0E0	0E0	0E0	0E0	0E0	0E0
Total use of non-re. PER	MJ	7,95E2	1,85E1	0E0	1,01E0	3,77E1	2,48E-3	-3,84E2
Secondary materials	kg	3,43E0	0E0	0E0	0E0	0E0	0E0	-2,46E0
Renew. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	0E0
Non-ren. secondary fuels	MJ	0E0	0E0	0E0	0E0	0E0	0E0	0E0
Use of net fresh water	m3	3,58E0	2,51E-3	0E0	1,72E-4	1,31E-1	2,8E-6	-1,61E-1

END OF LIFE – WASTE

PORTA-53G - END OF LIFE – WASTE

Impact category	Unit	A1-A3	A4	C1	C2	C3	C4	D
Hazardous waste	Kg	1,37E1	2,21E-2	0E0	1,15E-3	0E0	8,68E-6	-8,49E0
Non-hazardous waste	Kg	1,59E2	1,05E0	0E0	7,91E-2	0E0	2E-2	-9,09E1
Radioactive waste	Kg	3,42E-3	1,48E-4	0E0	7,78E-6	0E0	2,98E-8	-1,76E-3

ALUSLIDE-12 - END OF LIFE – WASTE

Impact category	Unit	A1-A3	A4	C1	C2	C3	C4	D
Hazardous waste	Kg	7,39E0	1,93E-2	0E0	1,02E-3	0E0	4,34E-6	-4,47E0
Non-hazardous waste	Kg	1E2	9,17E-1	0E0	7,01E-2	0E0	1E-2	-5,34E1
Radioactive waste	Kg	2,6E-3	1,29E-4	0E0	6,89E-6	0E0	1,49E-8	-1,2E-3

END OF LIFE – OUTPUT FLOWS

PORTA-53G - END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1-A3	A4	C1	C2	C3	C4	D
Components for re-use	Kg	0E0	0E0	0E0	0E0	0E0	0E0	0E0
Materials for recycling	Kg	1,06E0	0E0	0E0	0E0	2,26E1	0E0	0E0
Materials for energy rec	Kg	2,54E0	0E0	0E0	0E0	7,52E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	0E0

ALUSLIDE-12 - END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1-A3	A4	C1	C2	C3	C4	D
Components for re-use	Kg	0E0	0E0	0E0	0E0	0E0	0E0	0E0
Materials for recycling	Kg	8,1E-1	0E0	0E0	0E0	1,94E1	0E0	0E0
Materials for energy rec	Kg	1,51E0	0E0	0E0	0E0	7,23E0	0E0	0E0
Exported energy	MJ	0E0	0E0	0E0	0E0	0E0	0E0	0E0

KEY INFORMATION TABLE (RTS) – KEY INFORMATION PER KG OF PRODUCT

5) Biog. C in product = Biogenic carbon content in product

PORTA-53G - KEY INFORMATION TABLE (RTS) – KEY INFORMATION PER KG OF PRODUCT

Impact category	Unit	A1-A3	A4	C1	C2	C3	C4	D
GWP - total	kg CO2e	3,32E0	5,15E-2	0E0	2,5E-3	2,43E-1	7,07E-6	-1,85E0
ADP-minerals & metals	kg Sbe	8,35E-4	5,25E-7	0E0	6,76E-8	8,72E-4	7,53E-11	1,92E-4
ADP-fossil	MJ	3,82E1	7,06E-1	0E0	3,77E-2	2,3E0	1,65E-4	-2,01E1
Water use	m3e depr.	8,21E-1	1,84E-3	0E0	1,21E-4	1,96E-1	7,37E-6	-3,08E-1
Secondary materials	kg	2,19E-1	0E0	0E0	0E0	0E0	0E0	-1,66E-1
Biog. C in product	kg C	7.13	N/A	N/A	N/A	N/A	N/A	N/A
Biog. C in packaging	kg C	0.79	N/A	N/A	N/A	N/A	N/A	N/A

ALUSLIDE-12 - KEY INFORMATION TABLE (RTS) – KEY INFORMATION PER KG OF PRODUCT

Impact category	Unit	A1-A3	A4	C1	C2	C3	C4	D
GWP - total	kg CO2e	2,5E0	5,07E-2	0E0	2,5E-3	1,46E-1	3,99E-6	-1,32E0
ADP-minerals & metals	kg Sbe	5,66E-4	5,16E-7	0E0	6,76E-8	4,96E-4	4,25E-11	9,89E-5
ADP-fossil	MJ	2,98E1	6,95E-1	0E0	3,77E-2	1,41E0	9,29E-5	-1,44E1
Water use	m3e depr.	6,21E-1	1,81E-3	0E0	1,21E-4	1,13E-1	4,16E-6	-2,4E-1
Secondary materials	kg	1,29E-1	0E0	0E0	0E0	0E0	0E0	-9,23E-2
Biog. C in product	kg C	7.13	N/A	N/A	N/A	N/A	N/A	N/A
Biog. C in packaging	kg C	0.72	N/A	N/A	N/A	N/A	N/A	N/A

SCENARIO DOCUMENTATION

MANUFACTURING ENERGY SCENARIO DOCUMENTATION

Scenario parameter	Value
Electricity data source and quality	Market for electricity, high voltage (Reference product: electricity, high voltage) Estonia, Ecoinvent 3,6, year: 2020
Electricity CO ₂ e / kWh	0.84 kg CO ₂ /kWh
Heating data source and quality (firewood)	Heat production, mixed logs, at wood heater 6kw, state-of-the-art 2014 (Reference product: heat, central or small-scale, other than natural gas) Global, Ecoinvent 3,6, year: 2020
Heating (firewood) CO ₂ e / kWh	0.0184 kg CO ₂ /MJ
Heating data source and quality (gas)	Heat production, natural gas, at industrial furnace >100kw (Reference product: heat, district or industrial, natural gas) Europe, Ecoinvent 3,6, year: 2020
Heating (gas) CO ₂ e / kWh	0.0687 kg CO ₂ /kWh

TRANSPORT SCENARIO DOCUMENTATION (A4)

Scenario parameter	Value
A4 specific transport CO ₂ e emissions, kg CO ₂ e / tkm, lorry	0.090
A4 specific transport CO ₂ e emissions, kg CO ₂ e / tkm, ferry	0.011
A4 average transport distance, lorry, km	175
A4 average transport distance, ferry, km	285
A4 Capacity utilization (including empty return) %	75
A4 Bulk density of transported products, kg / m ²	27 - 30
A4 Volume capacity utilization factor	1



END OF LIFE SCENARIO DOCUMENTATION

Scenario parameter	PORTA-53G	ALUSLIDE-12
Collection process - kg collected separately	30.09	26.67
Collection process - kg collected with mixed waste	0.00	0.00
Recovery process - kg for re-use	0.00	0.00
Recovery process - kg for recycling	22.55	19.43
Recovery process - kg for energy recovery	7.52	7.23
Disposal (total) - kg for final deposition	0.02	0.01



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ABOUT THE MANUFACTURER

All our products are manufactured according to the customer's individual requirements. As a result, our products fit perfectly in the designated interior space and comply with all requirements of the building. Structo's products are practical, of high quality and stylish.

Not only do we manufacture products that look good, we also make them practical, long lasting and easy to handle. It is our greatest aim to provide all present and future customers with the satisfaction that can be guaranteed by our extensive experience and professional expertise.

Structo's products are characterised by innovative ideas and immaculate workmanship. Our constant product development makes sure you will get the best solutions for even your most complicated requirements.

EPD AUTHOR AND CONTRIBUTORS

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EPD program	The Building Information Foundation RTS sr
Background data	This EPD is based on Ecoinvent 3.6 and One Click LCA databases.
LCA software	One Click LCA



ANNEX 1 : ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

PORTA-53G - ANNEX 1 : ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

Impact category	Unit	A1-A3	A4	C1	C2	C3	C4	D
Global Warming Pot.	kg CO2e	9,79E1	1,54E0	0E0	7,46E-2	6,51E0	2,07E-4	-5,34E1
Ozone depletion Pot.	kg CFC11e	7,1E-6	2,61E-7	0E0	1,36E-8	4,74E-7	5,21E-11	-3,01E-6
Acidification	kg SO2e	4,49E-1	2,8E-2	0E0	1,51E-4	3,36E-2	1,43E-5	-2,35E-1
Eutrophication	kg PO4 3e	1,41E-1	3,24E-3	0E0	3,1E-5	1,17E-2	2,92E-7	-8,48E-2
POCP ("smog")	kg C2H4e	2,46E-2	7,58E-4	0E0	9,93E-6	1,18E-3	5,39E-8	-1,48E-2
ADP-elements	kg Sbe	2,51E-2	1,58E-5	0E0	2,03E-6	2,62E-2	2,26E-9	5,78E-3
ADP-fossil	MJ	1,15E3	2,13E1	0E0	1,13E0	6,91E1	4,95E-3	-6,06E2

ALUSLIDE-12 - ANNEX 1 : ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

Impact category	Unit	A1-A3	A4	C1	C2	C3	C4	D
Global Warming Pot.	kg CO2e	6,65E1	1,34E0	0E0	6,61E-2	3,44E0	1,03E-4	-3,39E1
Ozone depletion Pot.	kg CFC11e	5,38E-6	2,28E-7	0E0	1,21E-8	2,7E-7	2,61E-11	-2,15E-6
Acidification	kg SO2e	2,78E-1	2,44E-2	0E0	1,34E-4	1,75E-2	7,16E-6	-1,39E-1
Eutrophication	kg PO4 3e	8,6E-2	2,82E-3	0E0	2,75E-5	6,03E-3	1,46E-7	-4,93E-2
POCP ("smog")	kg C2H4e	1,48E-2	6,61E-4	0E0	8,8E-6	6,29E-4	2,7E-8	-8,38E-3
ADP-elements	kg Sbe	1,51E-2	1,38E-5	0E0	1,8E-6	1,32E-2	1,13E-9	2,64E-3
ADP-fossil	MJ	7,95E2	1,85E1	0E0	1,01E0	3,77E1	2,48E-3	-3,84E2

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