



Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

Serving Trolley Johan





Owner of the declaration:

Helland Møbler AS

Product:

Serving Trolley Johan

Declared unit:

1 pcs

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core

NPCR 026:2022 Part B for Furniture

Program operator:

The Norwegian EPD Foundation

Declaration number:

NEPD-9996-9898

Registration number: NEPD-9996-9898

Issue date:

07.05.2025

Valid to:

07.05.2030

EPD software:

LCAno EPD generator ID: 920205

The Norwegian EPD Foundation



General information

Product

Serving Trolley Johan

Program operator:

The Norwegian EPD Foundation
Post Box 5250 Majorstuen, 0303 Oslo, Norway

Phone: +47 977 22 020 web: www.epd-norge.no

Declaration number:

NEPD-9996-9898

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core PCR NPCR 026:2022 Part B for Furniture

Statement of liability:

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

Declared unit:

1 pcs Serving Trolley Johan

Declared unit (cradle to gate) with option:

A1-A3, A4, A5, B2, B3, B4, C1, C2, C3, C4, D

Functional unit:

Production of one trolley is provided and maintained for 15 years.

General information on verification of EPD from EPD tools:

Independent verification of data, other environmental information and the declaration according to ISO 14025:2010, § 8.1.3 and § 8.1.4. Verification of each EPD is made according to EPD-Norway's guidelines for verification and approval requiring that tools are i) integrated into the company's environmental management system, ii) the procedures for use of the EPD tool are approved by EPD-Norway, and iii) the process is reviewed annually by an independent third party verifier. See Appendix G of EPD-Norway's General Programme Instructions for further information on EPD tools

Verification of EPD tool:

Independent third party verification of the EPD tool, background data and test-EPD in accordance with EPDNorway's procedures and guidelines for verification and approval of EPD tools.

Third party verifier:

Elisabet Amat, GREENIZE projects

(no signature required)

Owner of the declaration:

Helland Møbler AS Contact person: Joakim Helland Phone: +47 958 09 013 e-mail: joakim.helland@helland.no

Manufacturer:

Helland Møbler AS

Place of production:

Helland Møbler AS Postboks 10 6259 Stordal, Norway

Management system:

ISO 14001:2015, sertifikat nr 901085

Organisation no:

943 511 128

Issue date:

07.05.2025

Valid to:

07.05.2030

Year of study:

2024

Comparability:

EPD of construction products may not be comparable if they not comply with EN 15804 and seen in a building context.

Development and verification of EPD:

The declaration is created using EPD tool lca.tools ver EPD2022.03, developed by LCA.no. The EPD tool is integrated in the company's management system, and has been approved by EPD Norway.

Developer of EPD: Uve Uustalu

Reviewer of company-specific input data and EPD: Pawel Sosinski

Approved:

Håkon Hauan, CEO EPD-Norge



Product

Product description:

The Johan serving trolley is a modern trolley with decorative solid wood slats on the sides. The trolley is stable to roll and can easily be locked in position with a lock on two

of the four wheels. The top plate has a practical stop strip on all four sides so that the service does not fall off the plate when the trolley is moved or during serving. The

plate is designed in high-pressure laminate, which is robust and easy to clean.

Product specification

Product Properties

- Wood spindle/rail
- Handle in epoxy
- Stop strip on table top
- Fixed/lockable wheels
- Alcohol-resistant (acid-cured varnish)

Add ons

• Black or silver handle

Materials	kg	%	Recycled share in material (kg)	Recycled share in material (%)
High pressure laminate - HPL thin	1,96	9,96	0,47	24,074
Metal - Steel	1,91	9,73	0,38	20,00
Paint, water-based	0,31	1,60	0,00	0,00
Plastic - Nylon (PA)	0,85	4,32	0,00	0,00
Wood - Medium Density Fibreboard (MDF)	11,30	57,35	0,00	0,00
Wood - Plywood	3,35	17,0097	0,00	0,00
Total	19,71	100,00	0,86	

Packaging	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Recycled cardboard	0,84	100,00	0,84	100,00
Total incl. packaging	20,55	100,00	1,69	

Technical data:

Height 73.5 cm Width 85 cm Depth 51.4 cm Weight 19 kg

Market:

Europa

Reference service life, product

Reference service life, building

LCA: Calculation rules

Declared unit:

1 pcs Serving Trolley Johan

Cut-off criteria:

All major raw materials and all the essential energy is included. The production processes for raw materials and energy flows with very small amounts (less than 1%) are not included. These cut-off criteria do not apply for hazardous materials and substances.

Allocation

The allocation is made in accordance with the provisions of EN 15804. Incoming energy and water and waste production in-house is allocated equally among all products through mass allocation. Effects of primary production of recycled materials is allocated to the main product in which the material was used. The recycling process and transportation of the material is allocated to this analysis.

Data quality:



Specific data for the product composition are provided by the manufacturer. They represent the production of the declared product and were collected for EPD development in the year of study. Background data is based on registered EPDs according to EN 15804, Ostfold Research databases, ecoinvent and other LCA databases. The data quality of the raw materials in A1 is presented in the table below.

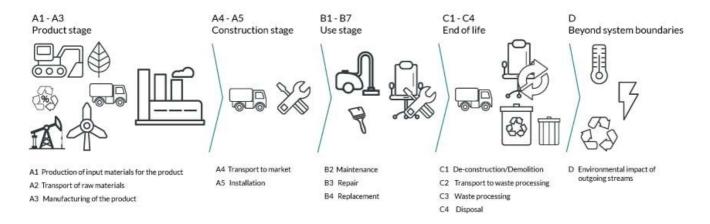
Materials	Source	Data quality	Year
High pressure laminate - HPL thin	EPD-ICL-20220238-CBE1-EN	EPD	2021
Metal - Steel	ecoinvent 3.6	Database	2019
Paint, water-based	ecoinvent 3.6	Database	2019
Plastic - Nylon (PA)	ecoinvent 3.6	Database	2019
Recycled cardboard	Modified ecoinvent 3.6	Database	2019
Wood - Medium Density Fibreboard (MDF)	ecoinvent 3.6	Database	2019
Wood - Plywood	modified ecoinvent 3.6	Database	2019



System boundaries (X=included, MND=module not declared, MNR=module not relevant)

Р	roduct stag	ge		uction on stage		Use stage End of life stage					Beyond the system boundaries					
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De- construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery- Recycling-potential
A1	A2	A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	C3	C4	D
Χ	X	Χ	Χ	Χ	MND	X	Χ	Χ	MND	MND	MND	Χ	X	X	Χ	X

System boundary:



Additional technical information:

The Helland group is Norway's leading supplier of health and care furniture. Our unique combination of design, production, and sustainability has set the quality standard for healthcare furniture for over 50 years. Helland has extensive cooperation with health institutions and furniture designers in Scandinavia. Since its establishment in 1947, the company has had a head office in Stordal in Sunnmøre and established its production in Estonia in 2015. Helland products are sold in Norway, Sweden, and Germany. The Helland group is organized into two sales companies, Helland Møbler AS (Sales Norway, Sweden, Denmark) and Helland Möbel GmbH (Eurozone customers). The Helland group has a total of 70 employees.

Helland Møbler AS is certified according to EU regulations. We use the CO2 equivalent for hydropower.

Helland Møbler AS is certified according to the ISO-14001 standard.

Helland has launched several models with the Swan label, and these products are treated with a special water-based varnish. This varnish has a high durability, but we advise against the use of disinfectants as this can shorten the life of the product. In addition, the Nordic Ecolabel will also require that furniture textiles are used that either have the EU Ecolabel or the Nordic Ecolabel.

All our products are produced with FSC-approved wood. FSC is a global non-profit labeling scheme for wood and paper. In an FSC forest, no more trees are felled than the forest can reproduce. At the same time, the FSC label is a guarantee that animals and plant life are protected and that the people who work in the forest are guaranteed education, safety equipment, and regular pay conditions.

Helland Møbler has a modern production facility where a clean working environment is a high priority. Emissions from production that affect the external and internal environment have been reduced to a minimum. The most commonly used types of wood are birch and oak, laminated and solid wood. Chipboard, plywood, and solid wood are used for interior woodwork. All sheet material, as well as glue and varnish, satisfy the E-1 norm for formaldehyde release. Foam plastic is produced without the use of CFC gas. Environmentally friendly water-based contact adhesive is used for gluing foam. All wood cladding is used for heating own premises. The cartons used are produced from recycled raw material. Cardboard, paper, plastic, steel, electrical waste, and special waste are sorted and sent for recycling. Other waste is delivered to municipal landfills.



LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD.

Transport from production place to user (A4)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Truck, 16-32 tonnes, EURO 6 (km)	36,7 %	1000	0,043	l/tkm	43,00
Truck, 7.5-16 tonnes, EURO 6 (kgkm)	35,4 %	300	0,056	l/tkm	16,80
Assembly (A5)	Unit	Value			
Waste, packaging, cardboard, 100 % recycled, to average treatment (kg)	kg	0,83			
Transport to waste processing (C2)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Truck, 16-32 tonnes, EURO 6 (km)	36,7 %	85	0,043	l/tkm	3,66
Waste processing (C3)	Unit	Value			
Waste, materials to recycling (kg)	kg	0,65			
Waste treatment per kg Scrap steel, incineration with fly ash extraction (kg)	kg	1,91			
Waste treatment per kg Wood, incineration with fly ash extraction (kg)	kg	14,65			
Waste treatment per kg Non-hazardous waste, incineration with fly ash extraction - C3 (kg)	kg	1,96			
Waste treatment per kg Plastics, Mixture, municipal incineration with fly ash extraction (kg)	kg	0,85			
Disposal (C4)	Unit	Value			
Landfilling of ashes and residues from incineration of Scrap steel (kg)	kg	1,26			
Landfilling of ashes from incineration of Wood, process per kg ashes and residues (kg)	kg	0,16			
Landfilling of ashes from incineration of Non- hazardous waste, process per kg ashes and residues - C4 (kg)	kg	0,46			
Landfilling of ashes from incineration of Plastics, Mixture, municipal incineration with fly ash extraction, process per kg ashes and residues - C4 (kg)	kg	0,029			
Benefits and loads beyond the system boundaries (D)	Unit	Value			
Substitution of primary steel with net scrap (kg)	kg	0,52			
Substitution of thermal energy, district heating, in Norway (MJ)	МЈ	191,71			
Substitution of electricity, in Norway (MJ)	MJ	12,67			



LCA: Results

The LCA results are presented below for the declared unit defined on page 2 of the EPD document.

Environme	ental impact								
	Indicator		Unit		A1-A3	A4	A5	B2	В3
	GWP-total		kg CO ₂ -e	eq	2,21E+01	4,68E+00	1,43E+00	0	0
	GWP-fossil		kg CO ₂ -e	eq	4,94E+01	4,68E+00	1,35E-02	0	0
	GWP-biogenic		kg CO ₂ -eq		-2,76E+01	2,00E-03	1,42E+00	0	0
	GWP-luluc		kg CO ₂ -€	eq	4,31E-01	1,77E-03	4,47E-06	0	0
٨	ODP		kg CFC11 -	-eq	5,29E-06	1,05E-06	2,85E-09	0	0
	АР		mol H+ -	eq	3,21E-01	1,34E-02	6,40E-05	0	0
	EP-FreshWater		kg P -ec	I	1,52E-03	3,89E-05	1,11E-07	0	0
*	EP-Marine		kg N -ed	1	5,78E-02	2,63E-03	2,12E-05	0	0
	EP-Terrestial		mol N -e	q	6,65E-01	2,94E-02	2,29E-04	0	0
	POCP		kg NMVOC	-eq	1,99E-01	1,13E-02	6,58E-05	0	0
	ADP-minerals&metals ¹		kg Sb-ed		5,41E-04	1,40E-04	3,29E-07	0	0
3	ADP-fossil ¹		МЈ		7,27E+02	7,05E+01	1,89E-01	0	0
<u></u>	WDP ¹		m^3		3,44E+03	7,27E+01	2,39E-01	0	0
			Unit B4						
	Indicator		Unit	B4	C1	C2	C3	C4	D
	Indicator GWP-total	k	Unit kg CO ₂ -eq	B4 0	C1 0	C2 2,85E-01	C3 3,35E+01	C4 2,22E-02	D -1,73E+00
_	GWP-total	k	kg CO ₂ -eq	0	0	2,85E-01	3,35E+01	2,22E-02	-1,73E+00
	GWP-total GWP-fossil	k	kg CO ₂ -eq	0	0	2,85E-01 2,85E-01	3,35E+01 6,81E+00	2,22E-02 2,22E-02	-1,73E+00 -1,68E+00
	GWP-total GWP-fossil GWP-biogenic	k k	kg CO ₂ -eq kg CO ₂ -eq	0 0	0 0	2,85E-01 2,85E-01 1,18E-04	3,35E+01 6,81E+00 2,67E+01	2,22E-02 2,22E-02 1,43E-05	-1,73E+00 -1,68E+00 -2,61E-03
	GWP-total GWP-fossil GWP-biogenic GWP-luluc	k k kg	kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq	0 0 0	0 0 0 0	2,85E-01 2,85E-01 1,18E-04 1,02E-04	3,35E+01 6,81E+00 2,67E+01 1,15E-04	2,22E-02 2,22E-02 1,43E-05 5,78E-06	-1,73E+00 -1,68E+00 -2,61E-03 -3,85E-02
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP	k k kg	kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq g CFC11 -eq	0 0 0 0	0 0 0 0	2,85E-01 2,85E-01 1,18E-04 1,02E-04 6,46E-08	3,35E+01 6,81E+00 2,67E+01 1,15E-04 5,07E-08	2,22E-02 2,22E-02 1,43E-05 5,78E-06 5,64E-09	-1,73E+00 -1,68E+00 -2,61E-03 -3,85E-02 -8,10E-02
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP	k k kg	kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq g CFC11 -eq mol H+ -eq	0 0 0 0 0	0 0 0 0 0	2,85E-01 2,85E-01 1,18E-04 1,02E-04 6,46E-08 8,20E-04	3,35E+01 6,81E+00 2,67E+01 1,15E-04 5,07E-08 3,46E-03	2,22E-02 2,22E-02 1,43E-05 5,78E-06 5,64E-09 1,35E-04	-1,73E+00 -1,68E+00 -2,61E-03 -3,85E-02 -8,10E-02 -1,20E-02
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP EP-FreshWater	k k kg n	kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq g CFC11 -eq mol H+ -eq kg P -eq	0 0 0 0 0 0	0 0 0 0 0 0	2,85E-01 2,85E-01 1,18E-04 1,02E-04 6,46E-08 8,20E-04 2,28E-06	3,35E+01 6,81E+00 2,67E+01 1,15E-04 5,07E-08 3,46E-03 6,74E-06	2,22E-02 2,22E-02 1,43E-05 5,78E-06 5,64E-09 1,35E-04 2,44E-07	-1,73E+00 -1,68E+00 -2,61E-03 -3,85E-02 -8,10E-02 -1,20E-02 -1,34E-04
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP EP-FreshWater EP-Marine	k k kg n	kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq g CFC11 -eq mol H+ -eq kg P -eq kg N -eq	0 0 0 0 0 0	0 0 0 0 0 0	2,85E-01 2,85E-01 1,18E-04 1,02E-04 6,46E-08 8,20E-04 2,28E-06 1,62E-04	3,35E+01 6,81E+00 2,67E+01 1,15E-04 5,07E-08 3,46E-03 6,74E-06 1,58E-03	2,22E-02 2,22E-02 1,43E-05 5,78E-06 5,64E-09 1,35E-04 2,44E-07 4,72E-05	-1,73E+00 -1,68E+00 -2,61E-03 -3,85E-02 -8,10E-02 -1,20E-02 -1,34E-04 -3,58E-03
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP EP-FreshWater EP-Marine EP-Terrestial	k k kg n	kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq g CFC11 -eq mol H+ -eq kg P -eq kg N -eq mol N -eq	0 0 0 0 0 0 0	0 0 0 0 0 0 0	2,85E-01 2,85E-01 1,18E-04 1,02E-04 6,46E-08 8,20E-04 2,28E-06 1,62E-04 1,81E-03	3,35E+01 6,81E+00 2,67E+01 1,15E-04 5,07E-08 3,46E-03 6,74E-06 1,58E-03 1,66E-02	2,22E-02 2,22E-02 1,43E-05 5,78E-06 5,64E-09 1,35E-04 2,44E-07 4,72E-05 5,25E-04	-1,73E+00 -1,68E+00 -2,61E-03 -3,85E-02 -8,10E-02 -1,20E-02 -1,34E-04 -3,58E-03 -3,84E-02
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP EP-FreshWater EP-Marine EP-Terrestial POCP	k k kg n	kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq kg CO ₂ -eq g CFC11 -eq mol H+ -eq kg P -eq kg N -eq mol N -eq NMVOC -eq	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	2,85E-01 2,85E-01 1,18E-04 1,02E-04 6,46E-08 8,20E-04 2,28E-06 1,62E-04 1,81E-03 6,95E-04	3,35E+01 6,81E+00 2,67E+01 1,15E-04 5,07E-08 3,46E-03 6,74E-06 1,58E-03 1,66E-02 4,07E-03	2,22E-02 2,22E-02 1,43E-05 5,78E-06 5,64E-09 1,35E-04 2,44E-07 4,72E-05 5,25E-04 1,50E-04	-1,73E+00 -1,68E+00 -2,61E-03 -3,85E-02 -8,10E-02 -1,20E-02 -1,34E-04 -3,58E-03 -3,84E-02 -1,18E-02

GWP-total = Global Warming Potential total; 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

Remarks to environmental impacts

[&]quot;Reading example: 9,0 E-03 = 9,0*10-3 = 0,009"

^{*}INA Indicator Not Assessed

^{1.} The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator



Additional env	vironmental impact i	ndicators					
	Indicator	Unit	A1-A3	A4	A5	B2	В3
	PM	Disease incidence	4,25E-06	2,79E-07	9,44E-10	0	0
	IRP ²	kgBq U235 -eq	2,89E+00	3,08E-01	8,09E-04	0	0
40	ETP-fw ¹	CTUe	9,65E+02	5,30E+01	2,52E-01	0	0
40. *** <u>\$</u>	HTP-c ¹	CTUh	1,82E-07	0,00E+00	8,00E-12	0	0
% <u>Q</u>	HTP-nc ¹	CTUh	7,86E-07	5,96E-08	3,16E-10	0	0
	SQP ¹	dimensionless	2,10E+03	4,72E+01	1,27E-01	0	0
Inc	licator	Unit B4	C1	C2	C3	C4	D

li li	ndicator	Unit	B4	C1	C2	C3	C4	D
	PM	Disease incidence	0	0	1,75E-08	3,29E-08	2,34E-09	-6,02E-07
	IRP ²	kgBq U235 -eq	0	0	1,89E-02	6,83E-03	1,74E-03	-9,95E-02
40	ETP-fw ¹	CTUe	0	0	3,20E+00	2,00E+01	3,35E-01	-1,18E+02
44. *** <u>\$</u>	HTP-c ¹	CTUh	0	0	0,00E+00	1,10E-09	1,50E-11	-4,34E-09
28	HTP-nc ¹	CTUh	0	0	3,49E-09	3,91E-08	4,45E-10	-2,29E-08
	SQP ¹	dimensionless	0	0	3,02E+00	4,44E-01	9,64E-01	-1,07E+02

PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)

[&]quot;Reading example: 9,0 E-03 = 9,0*10-3 = 0,009"

^{*}INA Indicator Not Assessed

^{1.} The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator

^{2.} This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.



Resource use									
W 3	Indicator		U	nit	A1-A3	A4	A5	B2	В3
	PERE		N	NJ	3,11E+02	1,06E+00	3,11E-03	0	0
	PERM		N	ΝJ	1,47E+02	0,00E+00	-4,88E+00	0	0
₽	PERT		N	ΝJ	4,58E+02	1,06E+00	-4,88E+00	0	0
B	PENRE		N	۷J	6,80E+02	7,05E+01	1,89E-01	0	0
	PENRM		N	۷J	5,04E+01	0,00E+00	0,00E+00	0	0
IA	PENRT		N	۷J	7,30E+02	7,05E+01	1,89E-01	0	0
	SM		k	κg	1,69E+00	0,00E+00	0,00E+00	0	0
2	RSF		N	۷J	1,35E+00	3,81E-02	1,03E-04	0	0
	NRSF		N	۷J	4,98E-01	1,37E-01	4,25E-04	0	0
%	FW		n	n ³	5,82E-01	7,78E-03	8,92E-05	0	0
Indi	icator	ι	Jnit	B4	C1	C2	C3	C4	D
indi Ç	icator PERE		Jnit MJ	B4 0	C1 0	C2 6,17E-02	C3 1,44E-01	C4 1,01E-02	D -9,86E+01
Č.	PERE		MJ	0	0	6,17E-02	1,44E-01	1,01E-02	-9,86E+01
e E	PERE PERM		M1 M1	0	0	6,17E-02 0,00E+00	1,44E-01 -1,42E+02	1,01E-02 0,00E+00	-9,86E+01 0,00E+00
्रह 3 ्रह	PERE PERM PERT		MJ MJ	0 0	0 0	6,17E-02 0,00E+00 6,17E-02	1,44E-01 -1,42E+02 -1,42E+02	1,01E-02 0,00E+00 1,01E-02	-9,86E+01 0,00E+00 -9,86E+01
. 	PERE PERM PERT PENRE		MI MI MI	0 0 0	0 0 0 0	6,17E-02 0,00E+00 6,17E-02 4,31E+00	1,44E-01 -1,42E+02 -1,42E+02 2,79E+00	1,01E-02 0,00E+00 1,01E-02 4,24E-01	-9,86E+01 0,00E+00 -9,86E+01 -2,07E+01
## ## ## ##	PERE PERM PERT PENRE PENRM		мл мл мл мл	0 0 0 0	0 0 0 0	6,17E-02 0,00E+00 6,17E-02 4,31E+00 0,00E+00	1,44E-01 -1,42E+02 -1,42E+02 2,79E+00 -5,04E+01	1,01E-02 0,00E+00 1,01E-02 4,24E-01 0,00E+00	-9,86E+01 0,00E+00 -9,86E+01 -2,07E+01 0,00E+00
	PERE PERM PERT PENRE PENRM PENRT		мл мл мл мл	0 0 0 0 0	0 0 0 0 0	6,17E-02 0,00E+00 6,17E-02 4,31E+00 0,00E+00 4,31E+00	1,44E-01 -1,42E+02 -1,42E+02 2,79E+00 -5,04E+01 -4,76E+01	1,01E-02 0,00E+00 1,01E-02 4,24E-01 0,00E+00 4,24E-01	-9,86E+01 0,00E+00 -9,86E+01 -2,07E+01 0,00E+00 -2,07E+01
	PERE PERM PERT PENRE PENRM PENRT SM		MJ MJ MJ MJ MJ kg	0 0 0 0 0 0	0 0 0 0 0 0	6,17E-02 0,00E+00 6,17E-02 4,31E+00 0,00E+00 4,31E+00 0,00E+00	1,44E-01 -1,42E+02 -1,42E+02 2,79E+00 -5,04E+01 -4,76E+01 0,00E+00	1,01E-02 0,00E+00 1,01E-02 4,24E-01 0,00E+00 4,24E-01 0,00E+00	-9,86E+01 0,00E+00 -9,86E+01 -2,07E+01 0,00E+00 -2,07E+01 0,00E+00

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; SM = Use of secondary materials; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water

"Reading example: 9,0 E-03 = 9,0*10-3 = 0,009" *INA Indicator Not Assessed



End of life - Waste									
	Indicator		U	nit	A1-A3	A4	A5	B2	В3
	HWD	kg		g	2,87E-01	3,71E-03	0,00E+00	0	0
Ū	NHWD		k	g	6,27E+00	3,25E+00	8,35E-01	0	0
<u> </u>	RWD		k	g	4,49E-03	4,79E-04	0,00E+00	0	0
In	dicator		Unit	B4	C1	C2	C3	C4	D
Ā	HWD		kg	0	0	2,22E-04	0,00E+00	1,78E+00	-3,73E-03
Ū	NHWD		kg	0	0	2,10E-01	1,97E+00	1,20E-01	-6,10E-01
3	RWD		kg	0	0	2,94E-05	0,00E+00	3,08E-06	-8,16E-05

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed

"Reading example: 9,0 E-03 = 9,0*10-3 = 0,009" *INA Indicator Not Assessed

End of life - Output flow								
Ind	icator	Un	it	A1-A3	A4	A5	B2	В3
@▷	CRU	kç	3	0,00E+00	0,00E+00	0,00E+00	0	0
&▷	MFR	kç		5,31E-02	0,00E+00	7,77E-01	0	0
DF	MER	kç		6,02E-01	0,00E+00	1,14E-06	0	0
50	EEE	М	J	3,53E-01	0,00E+00	4,78E-02	0	0
D®	EET	М	J	5,34E+00	0,00E+00	7,23E-01	0	0
Indicato	or	Unit	B4	C1	C2	C3	C4	D
∅>	CRU	kg	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
\$>	MFR	kg	0	0	0,00E+00	6,51E-01	0,00E+00	0,00E+00
D\(\bar{7}\)	MER	kg	0	0	0,00E+00	1,94E+01	0,00E+00	0,00E+00
50	EEE	МЈ	0	0	0,00E+00	1,16E+01	0,00E+00	0,00E+00
D@	EET	МЈ	0	0	0,00E+00	1,75E+02	0,00E+00	0,00E+00

CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported energy electrical; EET = Exported energy thermal

"Reading example: 9,0 E-03 = 9,0*10-3 = 0,009" *INA Indicator Not Assessed

Biogenic Carbon Content							
Unit	At the factory gate						
kg C	7,29E+00						
kg C	3,87E-01						
	kg C						

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



Additional requirements

Greenhouse gas emissions from the use of electricity in the manufacturing phase

National production mix from import, low voltage (production of transmission lines, in addition to direct emissions and losses in grid) of applied electricity for the manufacturing process (A3).

Electricity mix	Source	Amount	Unit
Electricity, Estonia (kWh)	ecoinvent 3.6	926,93	g CO2-eg/kWh

Dangerous substances

The product contains no substances on the REACH Candidate list at or above 100 ppm, 0,01 % by weight.

Indoor environment

Our Furniture does not contain any substances that affect the indoor climate.

Additional Environmental Information

Key Environmental Indicators

Key environmental indicators	Unit	A1-A3	A4	A1-C4	A1-D
GWPtotal	kg CO ₂ -eq	22,14	4,68	62,08	60,36
Total energy consumption	MJ	991,95	71,70	1071,66	947,17
Amount of recycled materials	%	8,23			

Additional environmental impact indicators required in NPCR Part A for construction products							
Indicator	Unit		A1-A3	A4	A5	B2	В3
GWPIOBC	kg CO ₂ -eq		5,18E+01	4,68E+00	1,35E-02	0	0
Indicator	Unit	B4	C1	C2	C3	C4	D
GWPIOBC	kg CO ₂ -eq	0	0	2,85E-01	4,69E+00	2,89E-02	-1,99E+00

GWP-IOBC: Global warming potential calculated according to the principle of instantaneous oxidation. In order to increase the transparency of biogenic carbon contribution to climate impact, the indicator GWP-IOBC is required as it declares climate impacts calculated according to the principle of instantaneous oxidation. GWP-IOBC is also referred to as GWP-GHG in context to Swedish public procurement legislation.



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