

# Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

## Tidal Sofa System - 3 seater



---

**HELLAND®**

---

The Norwegian EPD Foundation

**Owner of the declaration:**

Helland Møbler AS

**Product:**

Tidal Sofa System - 3 seater

**Declared unit:**

1 pcs

**This declaration is based on Product Category Rules:**

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

OUTDATED NPCR 026:2018 Part B for furniture

**Program operator:**

The Norwegian EPD Foundation

**Declaration number:**

NEPD-9401-9002

**Registration number:**

NEPD-9401-9002

**Issue date:** 18.03.2025

**Valid to:** 18.03.2030

**EPD software:**

LCAno EPD generator ID: 817144

## General information

### Product

Tidal Sofa System - 3 seater

### Program operator:

The Norwegian EPD Foundation  
Post Box 5250 Majorstuen, 0303 Oslo, Norway  
Phone: +47 977 22 020  
web: [www.epd-norge.no](http://www.epd-norge.no)

### Declaration number:

NEPD-9401-9002

### This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A2:2019 serves as core PCR  
OUTDATED NPCR 026:2018 Part B for furniture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 Tidal Sofa System - 3 seater

### Declared unit (cradle to gate) with option:

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

### Functional unit:

Production of one chair provided and maintained for a period of 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](mailto:joakim.helland@helland.no)

### Manufacturer:

Helland Møbler AS  
Postboks 10  
6259 Stordal, Norway

### Place of production:

Helland Baltic OÜ  
Hapvali, Nõmme küla, Haapsalu linn  
EE-90439 Läänemaa, Estonia

### Management system:

ISO 14001:2015, sertifikat nr 901085

### Organisation no:

943 511 128

### Issue date:

18.03.2025

### Valid to:

18.03.2030

### Year of study:

2023

### 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: Oddrun Aunet Innselset

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

### Approved:

Håkon Hauan  
Managing Director of EPD-Norway

## Product

### Product description:

The Tidal seating group is part of the elegant and versatile Tidal series, which includes the easy chair, lounge chair and lounge chair XL. With its timeless design and the option to choose between classic wooden legs or modern steel legs, the Tidal seating group can be adapted to any interior. The series comes in a variety of variants and layouts, including a corner sofa, which provides flexibility and the possibility of tailor-made furnishing to suit both small and large spaces.

The Tidal seating group is not only beautiful to look at, but also functional. It has been developed to meet the needs of both private homes and the healthcare segment, and fits equally well in modern healthcare and care environments as in the living room at home. The ergonomic design ensures comfort for hours, making the series ideal for both relaxation and social settings.

High-quality materials and solid construction ensure that the Tidal series will last a long time, regardless of the application. Whether you want a luxurious and modern expression in your home or a functional and comfortable solution for the healthcare sector, the Tidal seating group gives you the flexibility to create a harmonious and welcoming atmosphere.

### Product specification

- Reversible back and seat cushion
- Molded seat cushions
- Soft back cushion
- Deep seats
- 1 decorative cushion per side (not for 1s)
- Furniture facts
- Wooden or steel frame
- Removable and waterproof seat cover
- Armrest protectors (pair)

Materials	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Powder coating	0,40	0,84	0.00	0.00
Metal - Steel	2,30	4,84	0,46	20.00
Plastic - Polyurethane (PUR)	12,80	26,94	0.00	0.00
Textile - Polyester	6,80	14,31	0.00	0.00
Wood - Plywood	25,20	53,052	0.00	0.00
Total	47,50	100,00	0,46	

Packaging	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Packaging - Plastic	1,60	38,10	0,00	0,00
Recycled cardboard	2,60	61,90	2,60	100,00
Total incl. packaging	51,70	100,00	3,06	

### Technical data:

Width: 232cm,  
 Height: 82cm,  
 Depth: 90cm,  
 Seat depth: 58cm,  
 Seat height 45cm,  
 Weight: 49,10kg (without cardboard)

The product is tested and approved according to the following standards:

The testing laboratory has been accredited by the Latvian National Accreditation Bureau LATAK in accordance with the requirements of LVS EN ISO/IEC 17025:2017 and has been assigned registration No. T-316.

NS-EN 16139: 2013

NS-EN 1022: 2005

NS-EN 1335-3: 2005

NS-EN 1728: 2012

### Market:

Europa and USA

### Reference service life, product

15 years

### Reference service life, building

## LCA: Calculation rules

**Declared unit:**

1 pcs Tidal Sofa System - 3 seater

**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:**

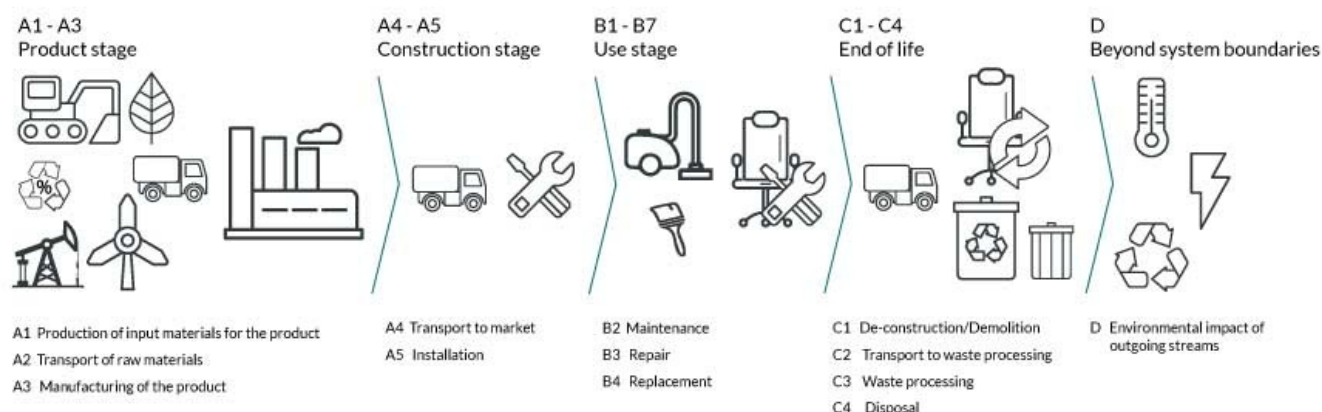
Specific data for the product composition are provided by the manufacturer. They represent the production of the declared product and were collected for EPD development in the year of study. Background data is based on registered EPDs according to EN 15804, Ostfold Research databases, ecoinvent and other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

Materials	Source	Data quality	Year
Metal - Steel	ecoinvent 3.6	Database	2019
Packaging - Plastic	ecoinvent 3.6	Database	2019
Plastic - Polyurethane (PUR)	ecoinvent 3.6	Database	2019
Powder coating	ecoinvent 3.6	Database	2019
Recycled cardboard	Modified ecoinvent 3.6	Database	2019
Textile - Polyester	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)

Product stage			Construction installation 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	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	X	X	X	MND	MND	MND	X	X	X	X	X

### System boundary:



### Additional technical information:

Transportation to an average customer in Copenhagen is 1000 km (A4: average European lorry > 32 tonnes)

The use stage (B1) is represented by a scenario and includes vacuum cleaning of textile once a month. The PCR does not provide detailed guidelines for what should be included in the use stage. In the end of life stage, the transport distance for waste to waste processing is 72 km (C1). The reuse, recovery and recycling stage is beyond the system boundaries (D). It is assumed that the solution is dismantled and the materials recycled or combusted according to general Norwegian treatment of industrial waste (see the table below). This calculation includes only CO<sub>2</sub> emissions (GWP) in the C-modules. The transport distance to reuse, recovery or recycling varies for each material, but the average distance is 373 km. The vehicles used and associated data are described in detail in [5].

## LCA: Scenarios and additional technical information

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














Transportation to an average customer in Copenhagen is 1000 km (A4: average European lorry > 32 tonnes)














The use stage (B1) is represented by a scenario and includes vacuum cleaning of textile once a month. The PCR does not provide detailed guidelines for what should be included in the use stage. In the end of life stage, the transport distance for waste to waste processing is 72 km (C1). The reuse, recovery and recycling stage is beyond the system boundaries (D). It is assumed that the solution is dismantled and the materials recycled or combusted according to general Norwegian treatment of industrial waste (see the table below). This calculation includes only CO<sub>2</sub> emissions (GWP) in the C-modules. The transport distance to reuse, recovery or recycling varies for each material, but the average distance is 373 km. The vehicles used and associated data are described in detail in [5].

Transport from production place to user (A4)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Truck, 16-32 tonnes, HVO, EURO 6 (kgkm)	36,7 %	1000	0,043	l/tkm	43,00
Truck, 7.5-16 tonnes, HVO, EURO 6 (kgkm)	35,4 %	300	0,056	l/tkm	16,80
Assembly (A5)	Unit	Value			
Waste, packaging, plastic film (LDPE), to average treatment - A5 (kg)	kg	1,60			
Waste, packaging, cardboard, 100 % recycled, to average treatment (kg)	kg	0,65			
Assembly (A5)	Unit	Value			
Waste, Packaging, Plastic film(LDPE), to average treatment-A5 (kg)	kg	0,75			
Waste, Packaging, Cardboard, 100% recycled, to average treatment (kg)	kg	5			
Waste, Packaging, Corrugated board box, 0& recycled, to average treatment (kg)	kg	0,245			
Maintenance (B2)	Unit	Value			
Electricity, European average (kWh)	kWh/DU	11,70			
Water, tap water (m3)	m3/DU	0,78			
Transport to waste processing (C2)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Truck, 16-32 tonnes, HVO, EURO 6 (kgkm)	36,7 %	85	0,043	l/tkm	3,66
Waste processing (C3)	Unit	Value			
Waste treatment per kg Textile, incineration with fly ash extraction (kg)	kg	6,80			
Waste treatment per kg Non-hazardous waste, incineration with fly ash extraction - C3 (kg)	kg	0,40			
Waste treatment per kg Wood, incineration with fly ash extraction (kg)	kg	25,20			
Waste treatment per kg Polyurethane (PU), incineration (kg)	kg	12,80			
Waste, materials to recycling (kg)	kg	0,78			
Waste treatment per kg Scrap steel, incineration with fly ash extraction (kg)	kg	2,30			
Disposal (C4)	Unit	Value			
Landfilling of ashes from incineration of Textile, soiled, process per kg ashes and residues (kg)	kg	0,34			
Landfilling of ashes from incineration of Non-hazardous waste, process per kg ashes and residues - C4 (kg)	kg	0,094			
Landfilling of ashes from incineration of Wood, process per kg ashes and residues (kg)	kg	0,28			
Landfilling of ashes from incineration of Polyurethane (PU), process per kg ashes and residues - C4 (kg)	kg	0,48			
Landfilling of ashes and residues from incineration of Scrap steel (kg)	kg	1,51			
Benefits and loads beyond the system boundaries (D)	Unit	Value			
Substitution of electricity, in Norway (MJ)	MJ	41,91			
Substitution of thermal energy, district heating, in Norway (MJ)	MJ	634,15			
Substitution of primary steel with net scrap (kg)	kg	0,62			

## LCA: Results

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

Environmental impact							
Indicator	Unit	A1-A3	A4	A5	B2	B3	
 GWP-total	kg CO <sub>2</sub> -eq	1,25E+02	2,83E+00	1,24E+00	5,28E+00	0	
 GWP-fossil	kg CO <sub>2</sub> -eq	1,69E+02	2,82E+00	1,37E-01	5,23E+00	0	
 GWP-biogenic	kg CO <sub>2</sub> -eq	-4,47E+01	4,90E-03	1,10E+00	3,66E-02	0	
 GWP-luluc	kg CO <sub>2</sub> -eq	2,05E-01	4,61E-03	1,32E-05	1,20E-02	0	
 ODP	kg CFC11 -eq	1,10E-05	5,53E-07	9,83E-09	4,44E-07	0	
 AP	mol H <sup>+</sup> -eq	9,49E-01	1,97E-02	2,06E-04	3,05E-02	0	
 EP-FreshWater	kg P -eq	8,77E-03	1,06E-04	3,47E-07	5,51E-04	0	
 EP-Marine	kg N -eq	1,95E-01	5,11E-03	1,59E-04	3,92E-03	0	
 EP-Terrestrial	mol N -eq	1,98E+00	5,72E-02	7,38E-04	4,82E-02	0	
 POCP	kg NMVOC -eq	6,56E-01	2,09E-02	2,35E-04	1,24E-02	0	
 ADP-minerals&metals <sup>1</sup>	kg Sb-eq	5,83E-03	3,68E-04	9,30E-07	4,39E-05	0	
 ADP-fossil <sup>1</sup>	MJ	2,98E+03	5,91E+01	6,70E-01	1,07E+02	0	
 WDP <sup>1</sup>	m <sup>3</sup>	8,90E+03	1,86E+02	2,03E+00	1,62E+03	0	

Indicator	Unit	B4	C1	C2	C3	C4	D
 GWP-total	kg CO <sub>2</sub> -eq	0	0	1,71E-01	8,77E+01	7,12E-02	-4,50E+00
 GWP-fossil	kg CO <sub>2</sub> -eq	0	0	1,70E-01	3,58E+01	7,11E-02	-4,36E+00
 GWP-biogenic	kg CO <sub>2</sub> -eq	0	0	2,89E-04	5,20E+01	8,21E-05	-7,97E-03
 GWP-luluc	kg CO <sub>2</sub> -eq	0	0	2,66E-04	2,66E-04	1,29E-05	-1,27E-01
 ODP	kg CFC11 -eq	0	0	3,52E-08	2,06E-07	1,04E-08	-2,68E-01
 AP	mol H <sup>+</sup> -eq	0	0	1,20E-03	3,46E-02	2,99E-04	-3,37E-02
 EP-FreshWater	kg P -eq	0	0	6,26E-06	1,68E-05	9,13E-07	-3,69E-04
 EP-Marine	kg N -eq	0	0	3,16E-04	1,90E-02	9,77E-05	-1,06E-02
 EP-Terrestrial	mol N -eq	0	0	3,54E-03	1,84E-01	1,10E-03	-1,14E-01
 POCP	kg NMVOC -eq	0	0	1,29E-03	4,38E-02	3,08E-04	-3,30E-02
 ADP-minerals&metals <sup>1</sup>	kg Sb-eq	0	0	2,07E-05	7,77E-06	5,59E-07	-4,84E-05
 ADP-fossil <sup>1</sup>	MJ	0	0	3,61E+00	1,69E+01	8,36E-01	-5,84E+01
 WDP <sup>1</sup>	m <sup>3</sup>	0	0	1,07E+01	4,30E+01	6,03E+00	-6,19E+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







"Reading example: 9,0 E-03 = 9,0\*10<sup>-3</sup> = 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

## Remarks to environmental impacts

## Additional environmental impact indicators

Indicator	Unit	A1-A3	A4	A5	B2	B3
 PM	Disease incidence	1,83E-05	6,20E-07	3,55E-09	8,90E-08	0
 IRP <sup>2</sup>	kgBq U235 -eq	6,72E+00	1,93E-01	2,99E-03	9,28E-01	0
 ETP-fw <sup>1</sup>	CTUe	5,64E+03	8,80E+01	6,95E-01	7,67E+01	0
 HTP-c <sup>1</sup>	CTUh	2,47E-07	0,00E+00	1,90E-11	2,74E-09	0
 HTP-nc <sup>1</sup>	CTUh	2,54E-06	1,50E-07	7,16E-10	8,55E-08	0
 SQP <sup>1</sup>	dimensionless	6,25E+03	1,05E+02	1,01E+00	2,60E+01	0

Indicator	Unit	B4	C1	C2	C3	C4	D
 PM	Disease incidence	0	0	3,96E-08	1,47E-07	4,28E-09	-1,89E-06
 IRP <sup>2</sup>	kgBq U235 -eq	0	0	1,18E-02	2,70E-02	3,73E-03	-3,33E-01
 ETP-fw <sup>1</sup>	CTUe	0	0	5,27E+00	9,69E+01	1,15E+00	-3,24E+02
 HTP-c <sup>1</sup>	CTUh	0	0	0,00E+00	3,42E-09	5,50E-11	-8,54E-09
 HTP-nc <sup>1</sup>	CTUh	0	0	8,79E-09	1,50E-07	1,96E-09	-2,02E-07
 SQP <sup>1</sup>	dimensionless	0	0	6,72E+00	1,94E+00	2,21E+00	-3,52E+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)











"Reading example: 9,0 E-03 = 9,0\*10<sup>-3</sup> = 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							
Indicator		Unit	A1-A3	A4	A5	B2	B3
	PERE	MJ	1,23E+03	2,80E+00	1,56E-02	2,05E+01	0
	PERM	MJ	3,68E+02	0,00E+00	-3,80E+00	0,00E+00	0
	PERT	MJ	1,60E+03	2,80E+00	-3,79E+00	2,05E+01	0
	PENRE	MJ	2,36E+03	5,91E+01	6,70E-01	1,07E+02	0
	PENRM	MJ	6,24E+02	0,00E+00	-6,80E+01	0,00E+00	0
	PENRT	MJ	2,98E+03	5,91E+01	-6,73E+01	1,07E+02	0
	SM	kg	3,06E+00	0,00E+00	0,00E+00	0,00E+00	0
	RSF	MJ	1,69E+00	9,18E-02	4,26E-04	1,50E+00	0
	NRSF	MJ	1,22E+00	3,19E-01	1,24E-03	3,93E-01	0
	FW	m <sup>3</sup>	2,92E+00	2,47E-02	3,46E-04	8,71E-01	0




Indicator		Unit	B4	C1	C2	C3	C4	D
	PERE	MJ	0	0	1,63E-01	4,84E-01	3,63E-02	-3,25E+02
	PERM	MJ	0	0	0,00E+00	-3,53E+02	0,00E+00	0,00E+00
	PERT	MJ	0	0	1,63E-01	-3,52E+02	3,63E-02	-3,25E+02
	PENRE	MJ	0	0	3,61E+00	1,70E+01	8,37E-01	-5,84E+01
	PENRM	MJ	0	0	0,00E+00	-5,56E+02	0,00E+00	0,00E+00
	PENRT	MJ	0	0	3,61E+00	-5,39E+02	8,37E-01	-5,84E+01
	SM	kg	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	RSF	MJ	0	0	5,31E-03	1,16E-02	9,11E-04	-3,21E-02
	NRSF	MJ	0	0	1,83E-02	0,00E+00	1,49E-01	-1,85E+01
	FW	m <sup>3</sup>	0	0	1,48E-03	5,74E-02	7,63E-04	-3,93E-01

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 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<sup>-3</sup> = 0,009"

\*INA Indicator Not Assessed






End of life - Waste							
Indicator		Unit	A1-A3	A4	A5	B2	B3
	HWD	kg	7,55E-01	8,46E-03	0,00E+00	1,63E-02	0
	NHWD	kg	2,13E+01	8,31E+00	2,25E+00	4,02E-01	0
	RWD	kg	6,51E-03	2,34E-04	0,00E+00	7,59E-04	0






Indicator		Unit	B4	C1	C2	C3	C4	D
	HWD	kg	0	0	5,06E-04	0,00E+00	2,18E+00	-6,04E-03
	NHWD	kg	0	0	5,36E-01	4,00E-01	4,80E-01	-1,52E+00
	RWD	kg	0	0	1,44E-05	0,00E+00	5,05E-06	-2,73E-04

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

"Reading example: 9,0 E-03 =  $9,0 \cdot 10^{-3}$  = 0,009"

\*INA Indicator Not Assessed

End of life - Output flow							
Indicator		Unit	A1-A3	A4	A5	B2	B3
	CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0
	MFR	kg	5,31E-02	0,00E+00	1,42E+00	0,00E+00	0
	MER	kg	6,02E-01	0,00E+00	8,09E-05	0,00E+00	0
	EEE	MJ	3,53E-01	0,00E+00	3,73E-02	0,00E+00	0
	EET	MJ	5,34E+00	0,00E+00	5,64E-01	0,00E+00	0

Indicator		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	7,80E-01	0,00E+00	0,00E+00
	MER	kg	0	0	0,00E+00	4,75E+01	0,00E+00	0,00E+00
	EEE	MJ	0	0	0,00E+00	4,03E+01	0,00E+00	0,00E+00
	EET	MJ	0	0	0,00E+00	6,10E+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 =  $9,0 \cdot 10^{-3}$  = 0,009"

\*INA Indicator Not Assessed

Biogenic Carbon Content		
Indicator	Unit	At the factory gate
Biogenic carbon content in product	kg C	1,15E+01
Biogenic carbon content in accompanying packaging	kg C	1,20E+00

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>

## 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 CO <sub>2</sub> -eq/kWh

### Dangerous substances

The product contains no substances given by the REACH Candidate list.

### Indoor environment

Our Furniture not contain any substances that affects indoor climate.

## Additional Environmental Information

### Key Environmental Indicators

Key environmental indicators	Unit	A1-A3	A4	A1-C4	A1-D
GWPtotal	kg CO <sub>2</sub> -eq	124,59	2,83	221,89	217,39
Total energy consumption	MJ	3592,60	62,31	3807,42	3405,31
Amount of recycled materials	%	5,92			

### Additional environmental impact indicators required in NPCR Part A for construction products






Indicator	Unit	A1-A3	A4	A5	B2	B3
GWPIOBC	kg CO <sub>2</sub> -eq	1,74E+02	2,83E+00	1,37E-01	5,64E+00	0

Indicator	Unit	B4	C1	C2	C3	C4	D
GWPIOBC	kg CO <sub>2</sub> -eq	0	0	1,71E-01	4,64E+01	9,47E-02	-4,78E+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.

## Bibliography

ISO 14025:2010 Environmental labels and declarations - Type III environmental declarations - Principles and procedures.  
 ISO 14044:2006 Environmental management - Life cycle assessment - Requirements and guidelines.  
 EN 15804:2012+A2:2019 Environmental product declaration - Core rules for the product category of construction products.  
 ISO 21930:2017 Sustainability in buildings and civil engineering works - Core rules for environmental product declarations of construction products.  
 ecoinvent v3, Allocation, cut-off by classification, Swiss Centre of Life Cycle Inventories.  
 Iversen et al., (2021) eEPD v2021.09 Background information for EPD generator tool system verification, LCA.no Report number: 07.21  
 Ruud et al., (2023) EPD generator for NPCR026 Part B for Furniture - Background information for EPD generator application and LCA data, LCA.no report number 01.23  
 NPCR Part A: Construction products and services. Ver. 2.0. March 2021, EPD-Norge.  
 NPCR 026 Part B for Furniture. Ver. 2.0 March 2022, EPD-Norge.

 <b>epd-norge</b> Global program operator	<b>Program operator and publisher</b> The Norwegian EPD Foundation Post Box 5250 Majorstuen, 0303 Oslo, Norway	Phone: +47 977 22 020 e-mail: post@epd-norge.no web: www.epd-norge.no
	<b>Owner of the declaration:</b> Helland Møbler AS Postboks 10, 6259 Stordal, Norway	Phone: +47 958 09 013 e-mail: joakim.helland@helland.no web: www.helland.no
	<b>Author of the Life Cycle Assessment</b> LCA.no AS Dokka 6A, 1671 Kråkerøy, Norway	Phone: +47 916 50 916 e-mail: post@lca.no web: www.lca.no
	<b>Developer of EPD generator</b> LCA.no AS Dokka 6A, 1671 Kråkerøy, Norway	Phone: +47 916 50 916 e-mail: post@lca.no web: www.lca.no
	ECO Platform ECO Portal	web: www.eco-platform.org web: ECO Portal