

# Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

## Ada Low, padded arms - Four Legs



**LK Hjelle**

EPD-Global

**Owner of the declaration:**  
Hjelle AS

**Product:**  
Ada Low, padded arms - Four Legs

**Declared unit:**  
1 pcs

**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

**Program operator:**  
EPD-Global

**Declaration number:**  
NEPD-14650-15251

**Issue date:**  
13.01.2026

**Valid to:**  
13.01.2031

**EPD software:**  
LCAno EPD generator ID: 1388845

## General information

### Product

Ada Low, padded arms - Four Legs

### Program operator:

EPD-Global  
Post Box 5250 Majorstuen, 0303 Oslo, Norway  
Phone: +47 977 22 020  
web: [www.epd-global.com](http://www.epd-global.com)

### Declaration number:

NEPD-14650-15251

### 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-Global shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

### Declared unit:

1 pcs Ada Low, padded arms - Four Legs

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

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

### Functional unit:

Dining/office/conference chair.

### 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-Global'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-Global, and iii) the process is reviewed annually by an independent third party verifier. See Appendix G of EPD-Global'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 EPD-Global'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:

Hjelle AS  
Contact person: Jahn Marius Larsen  
Phone: 92048833  
e-mail: [jahn@hjelle.no](mailto:jahn@hjelle.no)

### Manufacturer:

Hjelle AS

### Place of production:

Hjelle AS  
Vikøyra Industriområde 3  
6230 Sykkylven, Norway

### Management system:

### Organisation no:

912684261

### Issue date:

13.01.2026

### Valid to:

13.01.2031

### Year of study:

2026

### 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-Global.

Developer of EPD: Jahn Marius Larsen

Reviewer of company-specific input data and EPD: Elisabeth Hurlen

### Approved:



Håkon Hauan, CEO EPD-Global

## Product

### Product description:

Ada is petite and delicate, but welcomes you with an outstanding comfort with extra focus on lumbar support. This distinctive combination provides the ideal seating solution for long dinners, office environments, or corporate conference rooms. With a big range of customization options, Ada can be used in any environment. Ada offers great adaptability to suit any setting or purpose.

### Product specification

Ada is available with a selection of four leg choices, two width variations, two height options, and two unique armrest designs.

Height adjustment and with or without wheels.

The cover is removable.

Materials	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Metal - Steel	7.10	72.29	0.00	0.00
Plastic - Polyethylene (LDPE)	0.046	0.4684	0.00	0.00
Plastic - Polyurethane (PUR)	1.86	18.94	0.00	0.00
Recycled cardboard	0.54	5.50	0.54	100.00
Textile - Wool	0.275	2.80	0.00	0.00
Total	9.82	100.00	0.54	

Packaging	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Packaging - Cardboard	0.71	98.61	0.00	0.00
Packaging - Plastic	0.01	1.39	0.00	0.00
Total incl. packaging	10.54	100.00	0.54	

### Technical data:

Width: 54cm

Height: 81cm

Depth: 56cm

Seat height: 48cm

### Market:

Worldwide.

### Reference service life, product

15 years.

### Reference service life, building

Not relevant.

## LCA: Calculation rules

### Declared unit:

1 pcs Ada Low, padded arms - Four Legs

### 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.

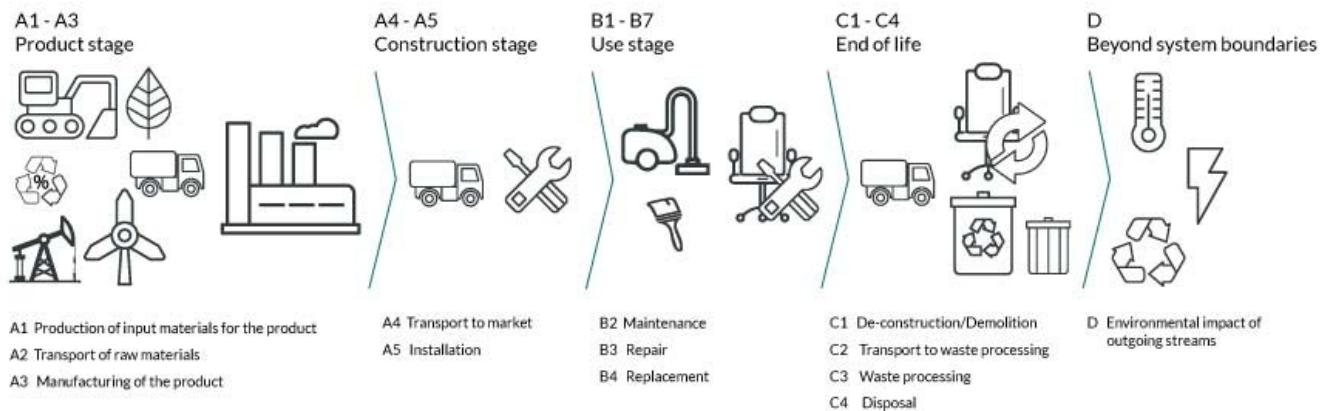
### Data quality:

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 - Cardboard	Modified ecoinvent 3.6	Database	2019
Packaging - Plastic	ecoinvent 3.6	Database	2019
Plastic - Polyethylene (LDPE)	ecoinvent 3.6	Database	2019
Plastic - Polyurethane (PUR)	ecoinvent 3.6	Database	2019
Recycled cardboard	Modified ecoinvent 3.6	Database	2019
Textile - Wool	MD-23110-EN_rev2	EPD	2021

**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 Oslo is 600 km (A4: average European lorry > 32 tonnes)

## 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, over 32 tonnes, EURO 6 (km)	53.3 %	600.00	0.023	l/tkm	13.80
Assembly (A5)	Unit	Value			
Waste, packaging, plastic tape, to average treatment (kg)	kg	0.01			
Waste, packaging, corrugated board box, 0 % recycled, to average treatment (kg)	kg	0.71			
Waste processing (C3)	Unit	Value			
Waste treatment per kg Textile, incineration with fly ash extraction (kg)	kg	0.275			
Waste, materials to recycling (kg)	kg	0.6786			
Waste treatment per kg Scrap steel, incineration with fly ash extraction (kg)	kg	7.10			
Waste treatment per kg Polyurethane (PU), incineration (kg)	kg	1.86			
Waste treatment per kg Polyethylene, PE, incineration with fly ash extraction - C3 (kg)	kg	0.046			
Waste treatment per kg Paperboard, incineration with fly ash extraction - C3 (kg)	kg	0.54			
Disposal (C4)	Unit	Value			
Landfilling of ashes from incineration of Textile, soiled, process per kg ashes and residues (kg)	kg	0.01381			
Landfilling of ashes and residues from incineration of Scrap steel (kg)	kg	4.69			
Landfilling of ashes from incineration of Polyurethane (PU), process per kg ashes and residues - C4 (kg)	kg	0.07051			
Landfilling of ashes from incineration of Polyethylene, PE, process per kg ashes and residues - C4 (kg)	kg	0.001621			
Landfilling of ashes from incineration of Paperboard, process per kg ashes and residues - C4 (kg)	kg	0.009649			
Benefits and loads beyond the system boundaries (D)	Unit	Value			
Substitution of electricity, in Norway (MJ)	MJ	3.39			
Substitution of thermal energy, district heating, in Norway (MJ)	MJ	51.36			
Substitution of primary steel with net scrap (kg)	kg	2.41			

## 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	4.59E+01	5.51E-01	1.22E+00	0	0
 GWP-fossil	kg CO <sub>2</sub> -eq	4.52E+01	5.51E-01	1.23E-02	0	0
 GWP-biogenic	kg CO <sub>2</sub> -eq	6.47E-01	2.36E-04	1.21E+00	0	0
 GWP-luluc	kg CO <sub>2</sub> -eq	3.95E-02	1.68E-04	3.86E-06	0	0
 ODP	kg CFC11 -eq	2.45E-06	1.33E-07	2.47E-09	0	0
 AP	mol H <sup>+</sup> -eq	2.22E-01	1.77E-03	5.54E-05	0	0
 EP-FreshWater	kg P -eq	2.74E-03	4.38E-06	9.59E-08	0	0
 EP-Marine	kg N -eq	4.53E-02	3.88E-04	1.89E-05	0	0
 EP-Terrestrial	mol N -eq	4.86E-01	4.33E-03	1.98E-04	0	0
 POCP	kg NMVOC -eq	1.62E-01	1.70E-03	5.71E-05	0	0
 ADP-minerals&metals <sup>1</sup>	kg Sb-eq	7.49E-04	9.82E-06	2.84E-07	0	0
 ADP-fossil <sup>1</sup>	MJ	6.09E+02	8.95E+00	1.64E-01	0	0
 WDP <sup>1</sup>	m <sup>3</sup>	7.25E+02	6.86E+00	2.15E-01	0	0

Indicator	Unit	B4	C1	C2	C3	C4	D
 GWP-total	kg CO <sub>2</sub> -eq	0	0	0	1.07E+01	5.71E-02	-2.96E+00
 GWP-fossil	kg CO <sub>2</sub> -eq	0	0	0	5.19E+00	5.71E-02	-2.95E+00
 GWP-biogenic	kg CO <sub>2</sub> -eq	0	0	0	5.47E+00	4.34E-05	-2.08E-03
 GWP-luluc	kg CO <sub>2</sub> -eq	0	0	0	4.05E-05	1.65E-05	-1.14E-02
 ODP	kg CFC11 -eq	0	0	0	2.92E-08	1.67E-08	-2.17E-02
 AP	mol H <sup>+</sup> -eq	0	0	0	4.71E-03	3.86E-04	-1.56E-02
 EP-FreshWater	kg P -eq	0	0	0	2.68E-06	5.87E-07	-1.90E-04
 EP-Marine	kg N -eq	0	0	0	2.59E-03	1.37E-04	-3.53E-03
 EP-Terrestrial	mol N -eq	0	0	0	2.49E-02	1.52E-03	-3.65E-02
 POCP	kg NMVOC -eq	0	0	0	5.96E-03	4.36E-04	-1.57E-02
 ADP-minerals&metals <sup>1</sup>	kg Sb-eq	0	0	0	1.17E-06	9.29E-07	-4.87E-05
 ADP-fossil <sup>1</sup>	MJ	0	0	0	2.43E+00	1.24E+00	-2.66E+01
 WDP <sup>1</sup>	m <sup>3</sup>	0	0	0	7.88E+00	2.82E+00	8.44E+01

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\*10-3 = 0.009"

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	3.22E-06	5.06E-08	8.20E-10	0	0
	IRP <sup>2</sup>	kgBq U235 -eq	1.77E+00	3.91E-02	7.02E-04	0	0
	ETP-fw <sup>1</sup>	CTUe	1.84E+03	6.54E+00	2.17E-01	0	0
	HTP-c <sup>1</sup>	CTUh	1.77E-07	0.00E+00	6.00E-12	0	0
	HTP-nc <sup>1</sup>	CTUh	1.43E-06	6.33E-09	2.72E-10	0	0
	SQP <sup>1</sup>	dimensionless	6.98E+02	1.03E+01	1.13E-01	0	0

Indicator	Unit	B4	C1	C2	C3	C4	D	
	PM	Disease incidence	0	0	0	2.69E-08	6.96E-09	-3.69E-07
	IRP <sup>2</sup>	kgBq U235 -eq	0	0	0	4.20E-03	4.99E-03	-1.77E-02
	ETP-fw <sup>1</sup>	CTUe	0	0	0	1.66E+01	7.87E-01	-1.71E+02
	HTP-c <sup>1</sup>	CTUh	0	0	0	6.88E-10	3.00E-11	-1.32E-08
	HTP-nc <sup>1</sup>	CTUh	0	0	0	1.72E-08	8.23E-10	2.55E-07
	SQP <sup>1</sup>	dimensionless	0	0	0	3.13E-01	2.72E+00	-3.01E+01

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\*10-3 = 0.009"

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	1.93E+02	1.13E-01	2.73E-03	0	0
	PERM	MJ	1.64E+01	0.00E+00	-1.13E+01	0	0
	PERT	MJ	2.10E+02	1.13E-01	-1.13E+01	0	0
	PENRE	MJ	5.50E+02	8.95E+00	1.64E-01	0	0
	PENRM	MJ	5.97E+01	0.00E+00	-3.66E-01	0	0
	PENRT	MJ	6.10E+02	8.95E+00	-2.02E-01	0	0
	SM	kg	5.40E-01	0.00E+00	0.00E+00	0	0
	RSF	MJ	1.46E+00	3.94E-03	8.99E-05	0	0
	NRSF	MJ	1.05E+01	1.32E-02	3.67E-04	0	0
	FW	m³	1.15E+00	1.02E-03	7.75E-05	0	0

Indicator	Unit	B4	C1	C2	C3	C4	D	
	PERE	MJ	0	0	0	7.55E-02	2.48E-02	-2.81E+01
	PERM	MJ	0	0	0	-1.05E+01	0.00E+00	0.00E+00
	PERT	MJ	0	0	0	-1.04E+01	2.48E-02	-2.81E+01
	PENRE	MJ	0	0	0	2.43E+00	1.24E+00	-2.66E+01
	PENRM	MJ	0	0	0	-5.93E+01	0.00E+00	0.00E+00
	PENRT	MJ	0	0	0	-5.69E+01	1.24E+00	-2.66E+01
	SM	kg	0	0	0	0.00E+00	0.00E+00	0.00E+00
	RSF	MJ	0	0	0	1.73E-03	6.52E-04	9.11E-02
	NRSF	MJ	0	0	0	0.00E+00	3.61E-02	1.23E+00
	FW	m³	0	0	0	8.42E-03	1.12E-03	-3.73E-02

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\*10-3 = 0.009"

**End of life - Waste**

<b>Indicator</b>		<b>Unit</b>	A1-A3	A4	A5	B2	B3
☒	HWD	kg	5.63E-01	4.90E-04	0.00E+00	0	0
☒	NHWD	kg	1.08E+01	7.78E-01	7.20E-01	0	0
☒	RWD	kg	2.71E-03	6.11E-05	0.00E+00	0	0
<b>Indicator</b>		<b>Unit</b>	B4	C1	C2	C3	C4
☒	HWD	kg	0	0	0	0.00E+00	4.73E+00
☒	NHWD	kg	0	0	0	0.00E+00	8.71E-02
☒	RWD	kg	0	0	0	0.00E+00	7.59E-06
							D

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"

**End of life - Output flow**

<b>Indicator</b>		<b>Unit</b>	A1-A3	A4	A5	B2	B3
▷	CRU	kg	0.00E+00	0.00E+00	0.00E+00	0	0
▷	MFR	kg	6.44E-01	0.00E+00	6.66E-01	0	0
▷	MER	kg	1.49E+00	0.00E+00	1.47E-06	0	0
▷	EEE	MJ	9.31E-01	0.00E+00	4.06E-02	0	0
▷	EET	MJ	1.41E+01	0.00E+00	6.14E-01	0	0
<b>Indicator</b>		<b>Unit</b>	B4	C1	C2	C3	C4
▷	CRU	kg	0	0	0	0.00E+00	0.00E+00
▷	MFR	kg	0	0	0	6.79E-01	0.00E+00
▷	MER	kg	0	0	0	9.82E+00	0.00E+00
▷	EEE	MJ	0	0	0	3.53E+00	0.00E+00
▷	EET	MJ	0	0	0	5.35E+01	0.00E+00
							D

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"

**Biogenic Carbon Content**

<b>Indicator</b>	<b>Unit</b>	<b>At the factory gate</b>
Biogenic carbon content in product	kg C	3.88E-01
Biogenic carbon content in accompanying packaging	kg C	3.29E-01

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, Norway (kWh)	ecoinvent 3.6	24.33	g CO2-eq/kWh

### Dangerous substances

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

### Indoor environment

Our furniture does not contain any substrates that affect indoor climate.

## Additional Environmental Information

### Key Environmental Indicators

Key environmental performance indicators	Unit	Product stage	Construction stage		Use stage		End-of-life				Net benefits and loads from reuse, recovery, and/or recycling
		A1-A3	A4	A5	B2	B3	B4	C1	C2	C3	C4
GWPTotal	kg CO <sub>2</sub> -eq	45.93	0.55	1.22	0.00	0.00	0.00	0.00	10.67	0.06	-2.96
Total energy consumption	MJ	755.29	9.08	0.17	0.00	0.00	0.00	0.00	2.51	1.30	-53.35
Share of recycled materials	%	5.11									

### 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	4.75E+01	5.51E-01	1.23E-02	0	0
Indicator	Unit	B4	C1	C2	C3	C4
GWPIOBC	kg CO <sub>2</sub> -eq	0	0	0	5.64E+00	5.83E-02

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.

### Variants and Options

Key environmental indicators (A1-A3) for variants of this EPD					
Variants	Weight (kg)	GWPTotal (kg CO <sub>2</sub> -eq)	Total energy consumption (MJ)	Amount of recycled materials (%)	
Ada Low, padded arms - Sled	11.35	49.33	800.13		4.76
Ada Low, padded arms - Swing	10.70	90.01	1204.67		5.05
Ada Low, padded arms - Office	11.75	96.80	1299.17		4.60
Ada Low, padded arms - Conference	12.25	97.13	1310.14		4.41

## 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.

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