

# Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

## Madison easy chair



# STILEDESE

The Norwegian EPD Foundation

**Owner of the declaration:** Swedese Möbler AB

**Product:** Madison easy chair

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:** The Norwegian EPD Foundation

Declaration number: NEPD-7816-7486-EN

**Registration number:** NEPD-7816-7486-EN

**Issue date:** 15.10.2024

Valid to: 15.10.2029

**EPD software:** LCAno EPD generator ID: 525400





### **General information**

Product

Madison easy chair

#### **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-7816-7486-EN

#### 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 Madison easy chair

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

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

#### **Functional unit:**

Easy chair for public environment, including packaging.

#### 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:**

Swedese Möbler AB Contact person: Daniel Stenmarker Phone: 004639379711 e-mail: daniel.stenmarker@swedese.se

#### Manufacturer:

Swedese Möbler AB Formvägen 567 23 Vaggeryd, Sweden

#### Place of production:

Swedese Möbler AB Äng Fågelvägen 36 571 74 Äng, Sweden

#### Management system:

ISO 9001, ISO 14001

#### **Organisation no:**

556280-1323

### Issue date:

15.10.2024

Valid to: 15.10.2029

### 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: Daniel Stenmarker

Reviewer of company-specific input data and EPD: Anna Ek

**Approved:** 

Håkon Hauan Managing Director of EPD-Norway

### Product

#### **Product description:**

Madison lives up to what characterizes Scandinavian design; good craftsmanship, functionality and a sleek design language. The product family includes the easy chair and several models of sofas. Choose from a metal sled base in the colors white, black or chrome, or a wooden base in oak. The easy chair is available with or without buttons on the back.

#### **Product specification**

The model studied in this declaration is Madison easy chair with oak frame and legs, including packaging.

This EPD includes the following variants:

Madison 2-seats sofa with oak frame and legs, including packaging.

Madison 3-seats sofa with oak frame and legs, including packaging.

The key environmental indicators for these variants are presented on a table at page 11 of this declaration.

If you are interested in the specific EPD-protocol for the variants, please contact us by info@swedese.se

Materials	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Textile - Cotton	1,70	6,54	0,00	0,00
Wood - Plywood	8,20	31,54	0,00	0,00
Wood - Solid pine	7,70	29,62	0,00	0,00
Glue for wood	0,30	1,15	0,00	0,00
Paint, water-based	0,10	0,38	0,00	0,00
Wood - Medium Density Fibreboard (MDF)	3,00	11,54	0,00	0,00
Plastic - Polyurethane (PUR)	3,70	14,23	0,00	0,00
Metal - Steel	1,30	5,00	0,26	20,00
Total	26,00	100,00	0,26	

Packaging	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Recycled cardboard	1,60	53,33	1,60	100,00
Packaging - Plastic	0,10	3,33	0,00	0,00
Packaging - Cardboard	1,30	43,33	0,00	0,00
Total incl. packaging	29,00	100,00	1,86	

#### Technical data:

#### Market:

Worldwide

**Reference service life, product** 

15 years, 5 years warranty

Reference service life, building

#### **LCA: Calculation rules**

#### Declared unit:

1 pcs Madison easy chair

#### 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:

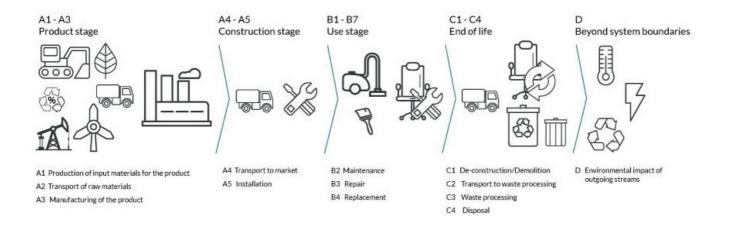
Specific data for the product composition are provided by the manufacturer. They represent the production of the declared product and were collected for EPD development in the year of study. Background data is based on registered EPDs according to EN 15804, Ostfold Research databases, ecoinvent and other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

Materials	Source	Data quality	Year
Glue for wood	ecoinvent 3.6	Database	2019
Metal - Steel	ecoinvent 3.6	Database	2019
Packaging - Cardboard	Modified ecoinvent 3.6	Database	2019
Packaging - Plastic	ecoinvent 3.6	Database	2019
Paint, water-based	ecoinvent 3.6	Database	2019
Plastic - Polyurethane (PUR)	ecoinvent 3.6	Database	2019
Recycled cardboard	Modified ecoinvent 3.6	Database	2019
Textile - Cotton	ecoinvent 3.6	Database	2019
Wood - Medium Density Fibreboard (MDF)	ecoinvent 3.6	Database	2019
Wood - Plywood	modified ecoinvent 3.6	Database	2019
Wood - Solid pine	ecoinvent 3.6	Database	2019

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

	Pr	oduct stag	je	Constr installati	uction on stage				Use stage					End of I	ife 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
Х		Х	Х	Х	Х	MND	Х	Х	Х	MND	MND	MND	Х	Х	Х	Х	Х

System boundary:



Additional technical information:

### LCA: Scenarios and additional technical information

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

First try to remove stains on furniture with a cloth or sponge that has been lightly moistened in warm water – if the furniture is not covered in linen or linen straps. Dab carefully and avoid soaking the material. If this does not help, contact your retailer for advice. Use kitchen paper to soak up any possible liquid and contact your retailer for advice.

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 %	300	0,043	l/tkm	12,90
Assembly (A5)	Unit	Value			
Waste, packaging, cardboard, 100 % recycled, to average treatment (kg)	kg	1,60			
Waste, packaging, corrugated board box, 0 % recycled, to average treatment (kg)	kg	1,30			
Waste, packaging, plastic film (LDPE), to average treatment - A5 (kg)	kg	0,10			

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 %	145	0,043	l/tkm	6,24
Waste processing (C3)	Unit	Value			
Waste treatment per kg Wood, incineration with fly ash extraction (kg)	kg	18,90			
Waste treatment per kg Polyurethane (PU), incineration (kg)	kg	3,70			
Waste treatment per kg Textile, incineration with fly ash extraction (kg)	kg	1,70			
Waste, materials to recycling (kg)	kg	0,44			
Waste treatment per kg Scrap steel, incineration with fly ash extraction (kg)	kg	1,30			
Waste treatment per kg Hazardous waste, incineration (kg)	kg	0,30			
Disposal (C4)	Unit	Value			
Landfilling of ashes from incineration of Wood, process per kg ashes and residues (kg)	kg	0,22			
Landfilling of ashes from incineration of Polyurethane (PU), process per kg ashes and residues - C4 (kg)	kg	0,14			
Landfilling of ashes from incineration of Textile, soiled, process per kg ashes and residues (kg)	kg	0,09			
Landfilling of ashes and residues from incineration of Scrap steel (kg)	kg	0,86			
Landfilling of ashes from incineration of Hazardous waste, from incineration (kg)	kg	0,06			
Benefits and loads beyond the system boundaries (D)	Unit	Value			
Substitution of thermal energy, district heating, in Norway (MJ)	MJ	300,85			
Substitution of electricity, in Norway (MJ)	MJ	19,89			
Substitution of primary steel with net scrap (kg)	kg	0,35			

### **LCA: Results**

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

Environm	ental impact							
	Indicator	Unit		A1-A3	A4	A5	B2	B3
P	GWP-total	kg CO <sub>2</sub> -	eq	2,95E+01	1,42E+00	4,98E+00	0	0
P	GWP-fossil	kg CO <sub>2</sub> -	eq	6,55E+01	1,42E+00	5,48E-02	0	0
P	GWP-biogenic	kg CO <sub>2</sub> -	eq	-3,78E+01	5,88E-04	4,92E+00	0	0
P	GWP-luluc	kg CO <sub>2</sub> -	eq	1,78E+00	5,06E-04	1,61E-05	0	0
Ò	ODP	kg CFC11	-eq	6,62E-06	3,22E-07	1,04E-08	0	0
Ê	АР	mol H+ -	eq	5,10E-01	4,08E-03	2,32E-04	0	0
	EP-FreshWater	kg P -eo	1	1,07E-02	1,14E-05	4,01E-07	0	0
æ	EP-Marine	kg N -ee	7	3,87E-01	8,08E-04	8,24E-05	0	0
	EP-Terrestial	mol N -e	p	1,27E+00	9,04E-03	8,30E-04	0	0
	РОСР	kg NMVOC	kg NMVOC -eq		3,46E-03	2,40E-04	0	0
s Ad	ADP-minerals&metals <sup>1</sup>	kg Sb-e	kg Sb-eq		3,93E-05	1,18E-06	0	0
Ð	ADP-fossil <sup>1</sup>	MJ	МЈ		2,15E+01	6,89E-01	0	0
%	WDP <sup>1</sup>	m <sup>3</sup>		5,77E+04	2,08E+01	9,47E-01	0	0
	Indicator	Unit	B4	C1	C2	C3	C4	D
P	GWP-total	kg CO <sub>2</sub> -eq	0	0	6,87E-01	4,74E+01	5,55E-02	-2,20E+00
P	GWP-fossil	kg CO <sub>2</sub> -eq	0	0	6,87E-01	1,09E+01	5,55E-02	-2,13E+00
P	GWP-biogenic	kg CO <sub>2</sub> -eq	0	0	2,84E-04	3,66E+01	3,84E-05	-3,82E-03
P	GWP-luluc	kg CO <sub>2</sub> -eq	0	0	2,44E-04	2,62E-04	8,41E-06	-6,03E-02
Ò								
S	ODP	kg CFC11 -eq	0	0	1,56E-07	1,46E-07	6,30E-09	-1,27E-01
Ē	ODP AP	kg CFC11 -eq mol H+ -eq	0 0	0	1,56E-07 1,97E-03	1,46E-07 1,27E-02	6,30E-09 1,89E-04	-1,27E-01 -1,63E-02
Ê	AP	mol H+ -eq	0	0	1,97E-03	1,27E-02	1,89E-04	-1,63E-02
	AP EP-FreshWater	mol H+ -eq kg P -eq	0 0	0	1,97E-03 5,49E-06	1,27E-02 2,30E-05	1,89E-04 6,23E-07	-1,63E-02 -1,79E-04
	AP EP-FreshWater EP-Marine	mol H+ -eq kg P -eq kg N -eq	0 0 0	0 0 0	1,97E-03 5,49E-06 3,91E-04	1,27E-02 2,30E-05 6,55E-03	1,89E-04 6,23E-07 5,91E-05	-1,63E-02 -1,79E-04 -5,10E-03
	AP EP-FreshWater EP-Marine EP-Terrestial	mol H+ -eq kg P -eq kg N -eq mol N -eq	0 0 0 0	0 0 0 0	1,97E-03 5,49E-06 3,91E-04 4,37E-03	1,27E-02 2,30E-05 6,55E-03 6,45E-02	1,89E-04 6,23E-07 5,91E-05 6,71E-04	-1,63E-02 -1,79E-04 -5,10E-03 -5,49E-02
	AP EP-FreshWater EP-Marine EP-Terrestial POCP	mol H+ -eq kg P -eq kg N -eq mol N -eq kg NMVOC -eq	0 0 0 0 0	0 0 0 0 0	1,97E-03 5,49E-06 3,91E-04 4,37E-03 1,67E-03	1,27E-02 2,30E-05 6,55E-03 6,45E-02 1,55E-02	1,89E-04 6,23E-07 5,91E-05 6,71E-04 1,88E-04	-1,63E-02 -1,79E-04 -5,10E-03 -5,49E-02 -1,60E-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\*10-3 = 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

**Remarks to environmental impacts** 

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Additional er	vironmental impac	t indicators						
	Indicator	Unit		A1-A3	A4	A5	B2	B3
	PM	Disease incidence	Disease incidence		8,70E-08	3,45E-09	0	0
(***) E	IRP <sup>2</sup>	kgBq U235 -eq		2,07E+01	9,39E-02	2,96E-03	0	0
	ETP-fw <sup>1</sup>	CTUe		3,11E+03	1,59E+01	9,06E-01	0	0
40.* ****	HTP-c <sup>1</sup>	CTUh	CTUh		0,00E+00	2,70E-11	0	0
28 E	HTP-nc <sup>1</sup>	CTUh	CTUh		1,74E-08	1,13E-09	0	0
è	SQP <sup>1</sup>	dimensionless	dimensionless		1,50E+01	4,97E-01	0	0
h	ndicator	Unit	B4	C1	C2	C3	C4	D
	PM	Disease incidence	0	0	4,21E-08	7,68E-08	2,44E-09	-9,03E-07
()~() E	IRP <sup>2</sup>	kgBq U235 -eq	0	0	4,54E-02	2,25E-02	2,40E-03	-1,58E-01
 	ETP-fw <sup>1</sup>	CTUe	0	0	7,70E+00	4,33E+01	8,21E-01	-1,57E+02
40-* *****	HTP-c <sup>1</sup>	CTUh	CTUh 0		0,00E+00	2,04E-09	3,90E-11	-4,35E-09
80 E	HTP-nc <sup>1</sup>	CTUh	CTUh 0		8,41E-09	6,65E-08	1,45E-09	-8,95E-08
6	SQP <sup>1</sup>	dimensionless	0	0	7,26E+00	1,82E+00	1,37E+00	-1,67E+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\*10-3 = 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								
	Indicator		Unit	A1-A3	A4	A5	B2	B3
i. S	PERE		MJ	8,55E+02	3,08E-01	1,16E-02	0	0
E.	PERM		MJ	3,02E+02	0,00E+00	-3,01E+01	0	0
° <b>₹ı</b>	PERT		MJ	1,16E+03	3,08E-01	-3,00E+01	0	0
B	PENRE		MJ	1,34E+03	2,15E+01	6,89E-01	0	0
. Åe	PENRM		MJ	1,18E+02	0,00E+00	-4,25E+00	0	0
IA	PENRT		MJ	1,46E+03	2,15E+01	-3,56E+00	0	0
	SM		kg	1,86E+00	0,00E+00	0,00E+00	0	0
2	RSF		MJ	1,69E+00	1,10E-02	3,80E-04	0	0
Ū.	NRSF		MJ	3,39E+00	3,93E-02	1,53E-03	0	0
۲	FW		m <sup>3</sup>	1,08E+01	2,30E-03	3,27E-04	0	0
	ndicator	Unit	B4	C1	C2	C3	C4	D
i T	ndicator PERE	Unit MJ	B4 0	C1 0	C2 1,49E-01	C3 6,77E-01	C4 2,95E-02	D -1,54E+02
	PERE	MJ	0	0	1,49E-01	6,77E-01	2,95E-02	-1,54E+02
in the second se	PERE	MJ	0	0	1,49E-01 0,00E+00	6,77E-01 -2,72E+02	2,95E-02 0,00E+00	-1,54E+02 0,00E+00
्र मि ्र	PERE PERM PERT	MJ MJ	0 0 0	0 0 0	1,49E-01 0,00E+00 1,49E-01	6,77E-01 -2,72E+02 -2,72E+02	2,95E-02 0,00E+00 2,95E-02	-1,54E+02 0,00E+00 -1,54E+02
کی بی بی ک	PERE PERM PERT PENRE	MJ MJ MJ	0 0 0 0 0 0 0	0 0 0 0	1,49E-01 0,00E+00 1,49E-01 1,04E+01	6,77E-01 -2,72E+02 -2,72E+02 8,80E+00	2,95E-02 0,00E+00 2,95E-02 5,18E-01	-1,54E+02 0,00E+00 -1,54E+02 -2,82E+01
ی ی به به به به	PERE PERM PERT PENRE PENRM	۲M ۲M ۲M ۲M	0 0 0 0 0	0 0 0 0 0	1,49E-01 0,00E+00 1,49E-01 1,04E+01 0,00E+00	6,77E-01 -2,72E+02 -2,72E+02 8,80E+00 -1,13E+02	2,95E-02 0,00E+00 2,95E-02 5,18E-01 0,00E+00	-1,54E+02 0,00E+00 -1,54E+02 -2,82E+01 0,00E+00
	PERE PERM PERT PENRE PENRM PENRT	۲M ۲M ۲M ۲M ۲M ۲M	0 0 0 0 0 0 0	0 0 0 0 0 0	1,49E-01 0,00E+00 1,49E-01 1,04E+01 0,00E+00 1,04E+01	6,77E-01 -2,72E+02 -2,72E+02 8,80E+00 -1,13E+02 -1,05E+02	2,95E-02 0,00E+00 2,95E-02 5,18E-01 0,00E+00 5,18E-01	-1,54E+02 0,00E+00 -1,54E+02 -2,82E+01 0,00E+00 -2,82E+01
	PERE PERM PERT PENRE PENRM PENRT SM	МЈ МЈ МЈ МЈ МЈ Кд	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	1,49E-01 0,00E+00 1,49E-01 1,04E+01 0,00E+00 1,04E+01 0,00E+00	6,77E-01 -2,72E+02 -2,72E+02 8,80E+00 -1,13E+02 -1,05E+02 0,00E+00	2,95E-02 0,00E+00 2,95E-02 5,18E-01 0,00E+00 5,18E-01 0,00E+00	-1,54E+02 0,00E+00 -1,54E+02 -2,82E+01 0,00E+00 -2,82E+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; PERT = Total use of non renewable primary energy resources; SENRE = Use of non renewable primary energy resources; SENRE = Use of non renewable primary energy resources; SM = Use of secondary materials; RESF = Use of renewable primary energy resources; SM = Use of secondary materials; RESF = 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	B3
Ā	HWD	k		g	3,11E-01	1,11E-03	0,00E+00	0	0
Ū	NHWD		k	g	1,03E+01	1,04E+00	3,00E+00	0	0
<b></b>	RWD		k	g	1,04E-02	1,46E-04	0,00E+00	0	0
In	dicator		Unit	B4	C1	C2	C3	C4	D
ā	HWD		kg	0	0	5,36E-04	0,00E+00	1,12E+00	-3,19E-03
Ū	NHWD		kg	0	0	5,05E-01	3,00E-01	2,30E-01	-7,48E-01
8	RWD		kg	0	0	7,07E-05	0,00E+00	2,34E-06	-1,30E-04

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									
Indi	cator		Unit	t	A1-A3	A4	A5	B2	B3
$\langle \hat{\omega} \rangle$	CRU		kg		0,00E+00	0,00E+00	0,00E+00	0	0
\$\$	MFR		kg		0,00E+00	0,00E+00	2,75E+00	0	0
DF	MER		kg		2,95E-01	0,00E+00	8,95E-06	0	0
۶D	EEE		MJ		1,75E-01	0,00E+00	1,66E-01	0	0
DØ	EET		MJ		2,65E+00	0,00E+00	2,51E+00	0	0
Indicato	r	Unit		B4	C1	C2	C3	C4	D
$\otimes \triangleright$	CRU	kg		0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
\$\$D	MFR	kg		0	0	0,00E+00	4,41E-01	0,00E+00	0,00E+00
DF	MER	kg		0	0	0,00E+00	2,59E+01	0,00E+00	0,00E+00
50	EEE	MJ		0	0	0,00E+00	1,96E+01	0,00E+00	0,00E+00
	EET	MJ		0	0	0,00E+00	2,96E+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

Indicator	Unit	At the factory gate
Biogenic carbon content in product	kg C	9,30E+00
Biogenic carbon content in accompanying packaging	kg C	1,34E+00

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, Sweden (kWh)	ecoinvent 3.6	54,94	g CO2-eq/kWh

#### Dangerous substances

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

#### Indoor environment

### **Additional Environmental Information**

#### **Key Environmental Indicators**

Key environmental indicators	Unit	A1-A3	A4	A1-C4	A1-D
GWPtotal	kg CO <sub>2</sub> -eq	29,54	1,42	84,13	81,93
Total energy consumption	MJ	2197,92	21,85	2241,16	2049,89
Amount of recycled materials	%	6,41			

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	kg CO <sub>2</sub> -eq		1,42E+00	5,48E-02	0	0
Indicator	Unit	B4	C1	C2	C3	C4	D
GWPIOBC	kg CO <sub>2</sub> -eq	0	0	6,87E-01	1,36E+01	6,15E-02	-2,36E+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.

#### **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 (%)		
Madison sofa 3 seater	54,30	76,62	4198,89	7,90		
Madison sofa 2 seater	44,40	59,14	3447,21	8,32		



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