



# Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

# **Eve Work Chair**



# **EDSBYN**

Owner of the declaration:

AB Edsbyverken

**Product:** 

Eve Work 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-9739-9707

**Registration number:** NEPD-9739-9707

Issue date:

11.04.2025

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**Valid to:** 11.04.2030

EPD software:

LCAno EPD generator ID: 908298

The Norwegian EPD Foundation



## **General information**

#### **Product**

Eve Work 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-9739-9707

#### 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 Eve Work Chair

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

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

#### **Functional unit:**

Eve Work Chair. Ergonomic work chair with 4D armrests, aluminium starbase with casters, mesh back and upholstered seating.

## 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:

AB Edsbyverken

Contact person: Maria Olsson

Phone

e-mail: maria.olsson@edsbyn.com

#### Manufacturer:

AB Edsbyverken

#### Place of production:

AB Edsbyverken Karlsvägen 2 828 32 Edsbyn, Sweden

#### Management system:

ISO 14001, ISO 9001

#### **Organisation no:**

556040-0755

#### Issue date:

11.04.2025

#### Valid to:

11.04.2030

## Year of study:

2025

# 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: Jonathan Liverstad

Reviewer of company-specific input data and EPD: Maria Olsson

#### Approved:

Håkon Hauan, CEO EPD-Norge



## **Product**

#### **Product description:**

Breaking away from conventional office chair design, the Eve Work Chair boldly reimagines form and function. The distinctive Y-structure, combined with a sophisticated mechanism, not only enhances comfort but also defines the chair's unique and unmistakable character.

The Eve Work Chair stands out with its innovative Y-shaped inner frame, crafted from ultra-durable nylon. This flexible frame allows for a subtle and controlled backrest twist, delivering both ergonomic support and a dynamic seating experience. Designed with the natural alignment of the shoulders and spine in mind, the backrest provides reliable support when reclining, ensuring comfort throughout the workday.

With form, function, and affordability - the Eve Work Chair stands out.

The chair is offered with a swivel base in polished aluminium or black powder-coated finish. An optional headrest can be purchased and added separately.

More information about Eve Work Chair can be found here: https://www.edsbyn.com/products/eve/work-chair/

#### **Product specification**

Eve Work Chair.

Ergonomic height-adjustable work chair with advanced tilt functions, 4D armrests, and a swivel base with casters for easy mobility.

Frame: Black nylon

Gas lift & mechanical parts: Steel Swivel base: 100% recycled aluminium

Casters: Black PU plastic

Seat: Fully upholstered in Fighter 60999 by Gabriel (100% recyclable polyester)

Back: Black Italian Mesh

Headrests are available as an optional feature and are calculated separately in options.

Materials	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Metal - Aluminium	1,68	10,70	0,00	0,00
Metal - Steel	5,48	34,92	0,00	0,00
Plastic - Nylon (PA)	8,40	53,53	0,00	0,00
Textile - Polyester	0,13	0,82	0,00	0,00
Total	15,69	100,00	0,00	

Packaging	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Packaging - Plastic	0,30	7,89	0,00	0,00
Recycled cardboard	3,50	92,11	3,50	100,00
Total incl. packaging	19,49	100,00	3,50	

## Technical data:

Width: 66,5 cm Depth: 75 cm

Height: 105-115 cm (without headrest), 125-135 cm (with headrest)

Sit height: 47-57 cm

Möbelfakta-certified product.

# Market:

Europe.

# Reference service life, product

5 year warranty. RSL up to 15 years.

Reference service life, building

## LCA: Calculation rules

#### **Declared unit:**

1 pcs Eve Work 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:

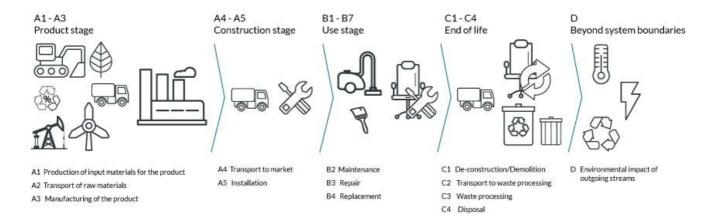
Specific data for the product composition are provided by the manufacturer. They represent the production of the declared product and were collected for EPD development in the year of study. Background data is based on registered EPDs according to EN 15804, Ostfold Research databases, ecoinvent and other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

Materials	Source	Data quality	Year
Metal - Aluminium	ecoinvent 3.6	Database	2019
Metal - Steel	ecoinvent 3.6	Database	2019
Packaging - Plastic	ecoinvent 3.6	Database	2019
Plastic - Nylon (PA)	ecoinvent 3.6	Database	2019
Recycled cardboard	Modified ecoinvent 3.6	Database	2019
Textile - Polyester	ecoinvent 3.6	Database	2019

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

Product stage			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	Refurb ishment	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	Χ	Χ	Χ	X	MND	X	Χ	Χ	MND	MND	MND	X	Χ	Χ	X	X

## **System boundary:**



## Additional technical information:

Edsbyn Care & Maintenance:

https://www.edsbyn.com/wp-content/uploads/2024/08/careedsbyn2024v240706.pdf



# 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 %	500	0,043	l/tkm	21,50
Assembly (A5)	Unit	Value			
Waste, packaging, plastic film (LDPE), to average treatment - A5 (kg)	kg	0,30			
Waste, packaging, cardboard, 100 % recycled, to average treatment (kg)	kg	3,50			
Maintenance (B2)	Unit	Value			
Electricity, Nordic (kWh)	kWh	0,35			
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 %	50	0,043	l/tkm	2,15
Waste processing (C3)	Unit	Value			
Waste treatment per kg Textile, incineration with fly ash extraction (kg)	kg	0,13			
Waste treatment per kg Non-hazardous waste, incineration with fly ash extraction - C3 (kg)	kg	8,40			
Waste treatment per kg Scrap aluminium, incineration with fly ash extraction (kg)	kg	1,68			
Waste, materials to recycling (kg)	kg	2,033			
Waste treatment per kg Scrap steel, incineration with fly ash extraction (kg)	kg	5,48			
Disposal (C4)	Unit	Value			
Landfilling of ashes from incineration of Textile, soiled, process per kg ashes and residues (kg)	kg	0,0065			
Landfilling of ashes from incineration of Non- hazardous waste, process per kg ashes and residues - C4 (kg)	kg	1,99			
Landfilling of ashes and residues from incineration of Scrap aluminium (kg)	kg	1,50			
Landfilling of ashes and residues from incineration of Scrap steel (kg)	kg	3,62			
Benefits and loads beyond the system boundaries (D)	Unit	Value			
Substitution of primary steel with net scrap (kg)	kg	1,85			
Substitution of primary aluminium with net scrap (kg)	kg	0,17			
Substitution of electricity, in Norway (MJ)	MJ	5,10			
Substitution of thermal energy, district heating, in Norway (MJ)	МЈ	77,29			



**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 <sub>2</sub> - e	eq	1,08E+02	1,59E+00	6,02E+00	5,10E-02	0
	GWP-fossil	GWP-fossil		kg CO <sub>2</sub> -eq		1,59E+00	8,04E-02	4,75E-02	0
	GWP-biogenic		kg CO <sub>2</sub> -	eq	-5,66E+00	6,59E-04	5,94E+00	8,68E-04	0
	GWP-luluc		kg CO <sub>2</sub> -€	eq	1,29E-01	5,67E-04	2,05E-05	2,60E-03	0
٨	ODP		kg CFC11	-eq	4,01E-06	3,61E-07	1,34E-08	5,14E-09	0
Œ.	AP		mol H+ -	eq	6,63E-01	4,57E-03	2,97E-04	2,19E-04	0
	EP-FreshWater		kg P -ec	7	4,49E-03	1,27E-05	5,14E-07	3,14E-06	0
-	EP-Marine		kg N -ed	q	1,66E-01	9,05E-04	1,15E-04	3,46E-05	0
<b>**</b>	EP-Terrestial		mol N -e	eq	1,35E+00	1,01E-02	1,06E-03	4,65E-04	0
	POCP		kg NMVOC	:-eq	4,07E-01	3,88E-03	3,10E-04	1,09E-04	0
	ADP-minerals&metals <sup>1</sup>		kg Sb-ed	9	8,22E-04	4,40E-05	1,50E-06	7,39E-07	0
	ADP-fossil <sup>1</sup>		MJ		1,49E+03	2,41E+01	8,90E-01	1,28E+00	0
<u>%</u>	WDP <sup>1</sup>		$m^3$		4 205 - 02	2 225 . 01	1,35E+00	0.025 - 01	0
(%)	WDP.		m <sup>3</sup>		4,38E+03	2,33E+01	1,55E+00	9,93E+01	U
(%)	Indicator		Unit m <sup>3</sup>	B4	4,38E+03	C2	C3	9,93E+01	D
				B4 0					
	Indicator		Unit		C1	C2	C3	C4	D
	<b>Indicator</b> GWP-total		<b>Unit</b> kg CO <sub>2</sub> -eq	0	C1 0	C2 1,59E-01	C3 1,99E+01	C4 6,05E-02	D -4,10E+00
	Indicator  GWP-total  GWP-fossil		Unit kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq	0	C1 0	C2 1,59E-01 1,59E-01	C3 1,99E+01 1,97E+01	C4 6,05E-02 6,05E-02	D -4,10E+00 -4,04E+00
<b>P</b>	Indicator  GWP-total  GWP-fossil  GWP-biogenic		Unit kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq	0 0	C1 0 0	C2 1,59E-01 1,59E-01 6,59E-05	C3 1,99E+01 1,97E+01 1,91E-01	C4 6,05E-02 6,05E-02 4,26E-05	D -4,10E+00 -4,04E+00 -9,17E-03
<b>P P P P P P P P P P</b>	Indicator  GWP-total  GWP-fossil  GWP-biogenic  GWP-luluc		Unit  kg CO <sub>2</sub> -eq  kg CO <sub>2</sub> -eq  kg CO <sub>2</sub> -eq  kg CO <sub>2</sub> -eq	0 0 0 0	0 0 0 0	C2 1,59E-01 1,59E-01 6,59E-05 5,67E-05	C3 1,99E+01 1,97E+01 1,91E-01 3,40E-04	C4 6,05E-02 6,05E-02 4,26E-05 1,87E-05	D -4,10E+00 -4,04E+00 -9,17E-03 -4,58E-02
	Indicator  GWP-total  GWP-fossil  GWP-biogenic  GWP-luluc  ODP		Unit  kg CO <sub>2</sub> -eq  kg CO <sub>2</sub> -eq  kg CO <sub>2</sub> -eq  kg CO <sub>2</sub> -eq	0 0 0 0	0 0 0 0 0	C2 1,59E-01 1,59E-01 6,59E-05 5,67E-05 3,61E-08	C3 1,99E+01 1,97E+01 1,91E-01 3,40E-04 1,34E-07	C4 6,05E-02 6,05E-02 4,26E-05 1,87E-05 1,94E-08	D -4,10E+00 -4,04E+00 -9,17E-03 -4,58E-02 -3,26E-02
	Indicator  GWP-total  GWP-fossil  GWP-biogenic  GWP-luluc  ODP  AP		Wnit  kg CO <sub>2</sub> -eq  kg CO <sub>2</sub> -eq  kg CO <sub>2</sub> -eq  kg CO <sub>2</sub> -eq  cg CFC11 -eq  mol H+ -eq	0 0 0 0 0	0 0 0 0 0 0	C2 1,59E-01 1,59E-01 6,59E-05 5,67E-05 3,61E-08 4,57E-04	C3 1,99E+01 1,97E+01 1,91E-01 3,40E-04 1,34E-07 3,19E-03	C4 6,05E-02 6,05E-02 4,26E-05 1,87E-05 1,94E-08 4,39E-04	D -4,10E+00 -4,04E+00 -9,17E-03 -4,58E-02 -3,26E-02 -2,43E-02
	Indicator  GWP-total  GWP-fossil  GWP-biogenic  GWP-luluc  ODP  AP  EP-FreshWater		kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq cg CFC11 -eq mol H+ -eq kg P -eq	0 0 0 0 0 0	0 0 0 0 0 0	C2 1,59E-01 1,59E-01 6,59E-05 5,67E-05 3,61E-08 4,57E-04 1,27E-06	C3 1,99E+01 1,97E+01 1,91E-01 3,40E-04 1,34E-07 3,19E-03 1,42E-05	C4 6,05E-02 6,05E-02 4,26E-05 1,87E-05 1,94E-08 4,39E-04 5,94E-07	D -4,10E+00 -4,04E+00 -9,17E-03 -4,58E-02 -3,26E-02 -2,43E-02 -2,26E-04
	Indicator  GWP-total  GWP-fossil  GWP-biogenic  GWP-luluc  ODP  AP  EP-FreshWater  EP-Marine		kg CO <sub>2</sub> -eq cg CFC11 -eq mol H+ -eq kg P -eq kg N -eq	0 0 0 0 0 0	0 0 0 0 0 0 0	C2 1,59E-01 1,59E-01 6,59E-05 5,67E-05 3,61E-08 4,57E-04 1,27E-06 9,05E-05	C3 1,99E+01 1,97E+01 1,91E-01 3,40E-04 1,34E-07 3,19E-03 1,42E-05 1,21E-03	C4 6,05E-02 6,05E-02 4,26E-05 1,87E-05 1,94E-08 4,39E-04 5,94E-07 1,57E-04	D -4,10E+00 -4,04E+00 -9,17E-03 -4,58E-02 -3,26E-02 -2,43E-02 -2,26E-04 -4,63E-03
	Indicator  GWP-total  GWP-fossil  GWP-biogenic  GWP-luluc  ODP  AP  EP-FreshWater  EP-Marine  EP-Terrestial		kg CO <sub>2</sub> -eq kg 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 0	C2 1,59E-01 1,59E-01 6,59E-05 5,67E-05 3,61E-08 4,57E-04 1,27E-06 9,05E-05 1,01E-03	C3 1,99E+01 1,97E+01 1,91E-01 3,40E-04 1,34E-07 3,19E-03 1,42E-05 1,21E-03 1,22E-02	C4 6,05E-02 6,05E-02 4,26E-05 1,87E-05 1,94E-08 4,39E-04 5,94E-07 1,57E-04 1,73E-03	D -4,10E+00 -4,04E+00 -9,17E-03 -4,58E-02 -3,26E-02 -2,43E-02 -2,26E-04 -4,63E-03 -4,91E-02
	Indicator  GWP-total  GWP-fossil  GWP-biogenic  GWP-luluc  ODP  AP  EP-FreshWater  EP-Marine  EP-Terrestial  POCP		kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CFC11 -eq mol H+ -eq kg P -eq kg N -eq mol N -eq g NMVOC -eq	0 0 0 0 0 0 0	C1 0 0 0 0 0 0 0 0	C2 1,59E-01 1,59E-01 6,59E-05 5,67E-05 3,61E-08 4,57E-04 1,27E-06 9,05E-05 1,01E-03 3,88E-04	C3 1,99E+01 1,97E+01 1,91E-01 3,40E-04 1,34E-07 3,19E-03 1,42E-05 1,21E-03 1,22E-02 3,04E-03	C4 6,05E-02 6,05E-02 4,26E-05 1,87E-05 1,94E-08 4,39E-04 5,94E-07 1,57E-04 1,73E-03 5,00E-04	D -4,10E+00 -4,04E+00 -9,17E-03 -4,58E-02 -3,26E-02 -2,43E-02 -2,26E-04 -4,63E-03 -4,91E-02 -1,88E-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

<sup>&</sup>quot;Reading example: 9,0 E-03 = 9,0\*10-3 = 0,009"

<sup>\*</sup>INA Indicator Not Assessed

<sup>1.</sup> 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	ironmental impact ind	licators					
	Indicator	Unit	A1-A3	A4	A5	B2	В3
	PM	Disease incidence	6,06E-06	9,75E-08	4,48E-09	1,16E-09	0
(101) R	IRP <sup>2</sup>	kgBq U235 -eq	2,21E+00	1,05E-01	3,83E-03	2,93E-02	0
	ETP-fw <sup>1</sup>	CTUe	2,22E+03	1,78E+01	1,15E+00	1,61E+00	0
46. * *** <u>E</u>	HTP-c <sup>1</sup>	CTUh	1,61E-07	0,00E+00	3,40E-11	3,70E-11	0
% <u>₽</u>	HTP-nc <sup>1</sup>	CTUh	1,72E-06	1,95E-08	1,42E-09	9,86E-10	0
	SQP <sup>1</sup>	dimensionless	1,77E+02	1,68E+01	7,02E-01	9,68E-01	0

li li	ndicator	Unit	B4	C1	C2	C3	C4	D
	PM	Disease incidence	0	0	9,75E-09	2,83E-08	8,09E-09	-5,02E-07
	IRP <sup>2</sup>	kgBq U235 -eq	0	0	1,05E-02	1,42E-02	5,72E-03	-1,19E-01
40	ETP-fw <sup>1</sup>	CTUe	0	0	1,78E+00	6,23E+01	8,74E-01	-1,72E+02
44. *** <u>\$</u>	HTP-c <sup>1</sup>	CTUh	0	0	0,00E+00	1,91E-09	3,30E-11	-1,44E-08
₩ <u></u>	HTP-nc <sup>1</sup>	CTUh	0	0	1,95E-09	3,64E-08	9,25E-10	1,35E-07
	SQP <sup>1</sup>	dimensionless	0	0	1,68E+00	7,67E-01	2,99E+00	-4,43E+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)

<sup>&</sup>quot;Reading example: 9,0 E-03 = 9,0\*10-3 = 0,009"

<sup>\*</sup>INA Indicator Not Assessed

<sup>1.</sup> 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

<sup>2.</sup> 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		U	nit	A1-A3	A4	A5	B2	В3
	PERE		N	۸J	1,21E+02	3,45E-01	1,55E-02	1,26E+00	0
	PERM		N	<b>N</b> J	2,05E+01	0,00E+00	-2,05E+01	0,00E+00	0
F.	PERT		N	۸J	1,41E+02	3,45E-01	-2,05E+01	1,26E+00	0
	PENRE		N	۸J	1,29E+03	2,41E+01	8,90E-01	1,30E+00	0
49	PENRM		N	۸J	2,04E+02	0,00E+00	-1,27E+01	0,00E+00	0
IA	PENRT		N	۸J	1,49E+03	2,41E+01	-1,19E+01	1,30E+00	0
<u></u>	SM		k	g	3,50E+00	0,00E+00	0,00E+00	0,00E+00	0
2	RSF		N	۸J	2,01E-01	1,23E-02	4,97E-04	1,28E-02	0
	NRSF		N	۸J	1,37E-01	4,41E-02	1,95E-03	0,00E+00	0
<b>&amp;</b>	FW		n	n <sup>3</sup>	1,74E+00	2,57E-03	4,26E-04	5,74E-03	0
	ndicator	U	Init	B4	C1	C2	C3	C4	D
Ţ.	PERE	1	MJ	0	0	3,45E-02	3,47E-01	2,55E-02	-4,81E+01
A	PERM	1	MJ	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
	PERT	1	MJ	0	0	3,45E-02	3,47E-01	2,55E-02	-4,81E+01
	PENRE	1	MJ	0	0	2,41E+00	4,65E+00	1,43E+00	-4,33E+01
Å	PENRM	1	MJ	0	0	0,00E+00	-1,91E+02	0,00E+00	0,00E+00
IA	PENRT	1	MJ	0	0	2,41E+00	-1,87E+02	1,43E+00	-4,33E+01
	SM	I	kg	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
2	RSF	1	MJ	0	0	1,23E-03	8,61E-03	6,76E-04	6,40E-02
	NRSF	1	MJ	0	0	4,41E-03	0,00E+00	2,71E-02	-1,85E-01
<b>&amp;</b>	FW	r	m <sup>3</sup>	0	0	2,57E-04	6,32E-03	1,29E-03	-9,09E-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; 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		Uı	nit	A1-A3	A4	A5	B2	В3
	HWD		k	g	3,48E-01	1,24E-03	0,00E+00	1,20E-04	0
	NHWD		k	g	1,44E+01	1,17E+00	3,80E+00	7,97E-03	0
<u>\$</u>	RWD		k	g	2,57E-03	1,64E-04	0,00E+00	1,35E-05	0
In	dicator	l	Unit	B4	C1	C2	C3	C4	D
ā	HWD		kg	0	0	1,24E-04	0,00E+00	6,82E+00	-4,41E-03
Ū	NHWD		kg	0	0	1,17E-01	8,40E+00	3,11E-01	-1,44E+00
<b>8</b>	RWD		kg	0	0	1,64E-05	0,00E+00	1,12E-05	-1,08E-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								
Ind	licator	Ur	Unit		A4	A5	B2	В3
<b>@▷</b>	CRU	k	9	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0
&D	MFR	k	9	0,00E+00	0,00E+00	3,41E+00	0,00E+00	0
Þ₹	MER	k	9	0,00E+00	0,00E+00	1,98E-05	0,00E+00	0
50	EEE	M	IJ	0,00E+00	0,00E+00	2,00E-01	0,00E+00	0
DB	EET	M	U	0,00E+00	0,00E+00	3,03E+00	0,00E+00	0
Indicato	or	Unit	B4	C1	C2	C3	C4	D
<b>∅</b> >	CRU	kg	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
&▷	MFR	kg	0	0	0,00E+00	2,03E+00	0,00E+00	0,00E+00
DØ	MER	kg	0	0	0,00E+00	1,57E+01	0,00E+00	0,00E+00
50	EEE	MJ	0	0	0,00E+00	3,02E-01	0,00E+00	0,00E+00
DØ.	EET	MJ	0	0	0,00E+00	4,56E+00	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	0,00E+00					
kg C	1,62E+00					
	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, China (kWh)	ecoinvent 3.6	1102.91	a CO2-ea/kWh

#### **Dangerous substances**

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

#### **Indoor environment**

No effect on 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	107,87	1,59	135,66	131,56
Total energy consumption	MJ	1410,09	24,47	1446,98	1355,44
Amount of recycled materials	%	17,96			

Additional environmental impact indicators required in NPCR Part A for construction products							
Indicator	Unit	A1-A3	A4	A5	B2	В3	
GWPIOBC	kg CO <sub>2</sub> -eq	kg CO <sub>2</sub> -eq		1,59E+00	8,04E-02	6,91E-02	0
Indicator Unit		B4	C1	C2	C3	C4	D
GWPIOBC	kg CO <sub>2</sub> -eq	0	0	1,59E-01	1,09E+01	7,79E-02	-5,03E+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 options for this EPD						
Options	Weight (kg)	GWPtotal (kg CO <sub>2</sub> -eq)	Total energy consumption (MJ)	Amount of recycled materials (%)		
Eve Headrest	1,06	4,68	72,57	33,02		

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