

### Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

U11-54 - SunSet - Armchair





nola

**Owner of the declaration:** Nola Industrier Aktiebolag

Product: U11-54 - SunSet - Armchair

Declared unit: 1 pcs

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-7350-6751-EN

**Registration number:** 

NEPD-7350-6751-EN

Issue date: 26.08.2024

Valid to: 26.08.2029

**EPD software:** LCAno EPD generator ID: 431823

The Norwegian EPD Foundation

### **General information**

**Product** U11-54 - SunSet - Armchair

#### 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-7350-6751-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 U11-54 - SunSet - Armchair

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

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

### Functional unit:

1 chair, from the Sunset furniture series, as delivered to the final customer.

#### 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:

Nola Industrier Aktiebolag Contact person: Anders Åkesson Phone: 08-702 19 60 e-mail: anders.akesson@nola.se

Manufacturer: Nola Industrier Aktiebolag

### Place of production:

Nola Industrier Aktiebolag Blekingegatan 26 118 56 Stockholm, Sweden

Management system:

**Organisation no:** 556207-4442

#### Issue date:

26.08.2024

Valid to:

26.08.2029

#### Year of study:

2022

#### **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: Alex Vaivars

Reviewer of company-specific input data and EPD: Anders Åkesson

Approved:

Håkon Hauan Managing Director of EPD-Norway

### Product

#### **Product description:**

The SunSet group is contemporary in style, yet honours the tradition of Scandinavian wood furniture. The group includes an armchair and round table crafted with a slatted ipé surface inspired by rays of sunshine. The lightweight frames are made in zinc-electroplated powder-coated steel, making the products easy to move and stack. The group is designed with outdoor areas in mind, perfect for places where the evening sunset can be enjoyed.

#### **Product specification**

U11-54 SunSet Armchair Width: 61 cm Depth: 57 cm Height: 85 cm Seat height: 46 cm Seat depth: 43 cm Seat width: 47 cm Armrest height: 70 cm Weight: 10,9 kg

Materials	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Metal - Stainless steel	0,20	1,80	0,04	21,83
Metal - Steel	8,70	78,38	0,00	0,00
Wood - Solid oak	2,20	19,82	0,00	0,00
Total	11,10	100,00	0,04	

Packaging	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Packaging - Cardboard	0,46	78,63	0,00	0,00
Packaging - Pallet	0,13	21,37	0,00	0,00
Total incl. packaging	11,69	100,00	0,04	

#### Technical data:

#### Market:

Global

**Reference service life, product** 

15 years

Reference service life, building

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

Declared unit:

1 pcs U11-54 - SunSet - Armchair

#### 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.

Energy flows and materials representing less than 1% of the total are excluded. Cut-off does not apply for REACH materials.

#### 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. Allocation as per EN 15804.

Impacts from primary production of virgin material are assigned to respective component production and includes transportation.

Impacts from repair and replacement are not included in the use stage, as the materials used in the product are designed to last longer than the stated lifespan

Impacts from primary production of recycled materials are assigned to respective component production, and includes recycling and transportation processes.

Emissions from disposal of the product are included and allocated per material. Energy recovery from incineration of relevant materials is included and allocated on a national level.

#### 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. Data has been gathered from sub suppliers and public, current, published EPDs or ecoinvent 3.6 database.

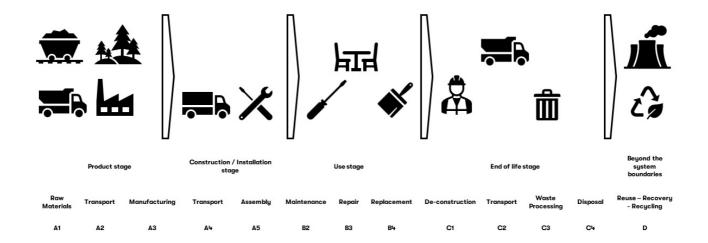
Materials	Source	Data quality	Year
Metal - Stainless steel	ecoinvent 3.6	Database	2019
Metal - Steel	ecoinvent 3.6	Database	2019
Packaging - Cardboard	Modified ecoinvent 3.6	Database	2019
Packaging - Pallet	ecoinvent 3.6	Database	2019
Wood - Solid oak	modified ecoinvent 3.6	Database	2019

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

	Pr	oduct stag	je	Constr installati		Use stage End of life stage			Beyond the system boundaries								
Raw	materials	Transport	Manufacturing	Transport	Assembly	Use	Mainten an ce	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De- construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery- Recycling-potential
A	1	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:

Sweden



Additional technical information:

### LCA: Scenarios and additional technical information

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

Production scenario assumes production in Sweden at sub-suppliers with transport of materials and components between certain production steps.

Usage scenario assumes no repair or replacement and minimal maintenance during the 15 year lifespan of the product, as materials and surface treatments are selected to require servicing during lifetime of product. The installation location is assumed to be within Sweden.

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 5 (km)	53,3 %	400	0,023	l/tkm	9,20
Assembly (A5)	Unit	Value			
Waste, packaging, corrugated board box, 0 % recycled, to average treatment (kg)	kg	0,46			
Waste, packaging, Pallet, EUR wooden pallet, single use, average treatment (kg)	kg	0,13			
Maintenance (B2)	Unit	Value			
Water, tap water (m3)	m3/DU	0,01			
Transport to waste processing (C2)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Truck, 16-32 tonnes, EURO 5 (km)	36,7 %	20	0,044	l/tkm	0,88
Waste processing (C3)	Unit	Value			
Waste treatment per kg Scrap steel, incineration with fly ash extraction (kg)	kg	8,90			
Waste treatment per kg Wood, incineration with fly ash extraction (kg)	kg	2,20			
Waste, materials to recycling (kg)	kg	3,02			
Disposal (C4)	Unit	Value			
Landfilling of ashes and residues from incineration of Scrap steel (kg)	kg	5,88			
Landfilling of ashes from incineration of Wood, process per kg ashes and residues (kg)	kg	0,03			
Benefits and loads beyond the system boundaries (D)	Unit	Value			
Substitution of electricity (MJ)	MJ	1,53			
Substitution of primary steel with net scrap (kg)	kg	3,00			
Substitution of thermal energy, district heating (MJ)	MJ	23,15			

### LCA: Results

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

EIIVITOIIIII	ental impact							
	Indicator	Unit		A1-A3	A4	A5	B2	B3
P	GWP-total	kg CO <sub>2</sub> -	kg CO <sub>2</sub> -eq		3,97E-01	9,81E-01	3,45E-03	0
P	GWP-fossil	kg CO <sub>2</sub> -	kg CO <sub>2</sub> -eq		3,96E-01	1,08E-02	3,43E-03	0
P	GWP-biogenic	kg CO <sub>2</sub> -	eq	-4,54E+00	1,63E-04	9,70E-01	2,16E-05	0
P	GWP-luluc	kg CO <sub>2</sub> -	eq	1,49E-01	1,16E-04	3,32E-06	5,58E-06	0
Ò	ODP	kg CFC11	-eq	2,46E-06	9,16E-08	2,11E-09	3,04E-10	0
Ê	АР	mol H+ -	eq	1,52E-01	1,67E-03	6,23E-05	2,00E-05	0
	EP-FreshWater	kg P -e	9	1,74E-03	3,02E-06	1,01E-07	2,74E-07	0
	EP-Marine	kg N -e	q	3,00E-02	5,01E-04	2,33E-05	3,17E-06	0
	EP-Terrestial	mol N -	eq	3,45E-01	5,54E-03	2,50E-04	3,69E-05	0
	POCP	kg NMVOC	C-eq	1,40E-01	1,78E-03	6,82E-05	1,16E-05	0
<b>.</b> 50	ADP-minerals&metals <sup>1</sup>	kg Sb-e	kg Sb-eq		6,77E-06	2,36E-07	9,59E-08	0
A	ADP-fossil <sup>1</sup>	MJ	МЈ		6,16E+00	1,44E-01	5,86E-02	0
6	WDP <sup>1</sup>	m <sup>3</sup>	m <sup>3</sup>		4,73E+00	1,93E-01	1,05E+00	0
	Indicator	Unit	B4	C1	C2	C3	C4	D
P	GWP-total	kg CO <sub>2</sub> -eq	0	0	3,64E-02	3,74E+00	6,41E-02	-3,45E+00
Ð	GWP-fossil							
	GWP-IOSSII	kg CO <sub>2</sub> -eq	0	0	3,63E-02	6,88E-02	6,41E-02	-3,44E+00
P	GWP-biogenic	kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq	0	0	3,63E-02 1,48E-05	6,88E-02 3,67E+00	6,41E-02 4,85E-05	-3,44E+00 -2,10E-03
P								
-	GWP-biogenic	kg CO <sub>2</sub> -eq	0	0	1,48E-05	3,67E+00	4,85E-05	-2,10E-03
P	GWP-biogenic GWP-luluc	kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq	0 0	0	1,48E-05 1,27E-05	3,67E+00 1,62E-05	4,85E-05 1,97E-05	-2,10E-03 -6,10E-03
¢ Ø	GWP-biogenic GWP-luluc ODP	kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CFC11 -eq	0 0 0	0 0 0	1,48E-05 1,27E-05 8,28E-09	3,67E+00 1,62E-05 6,23E-09	4,85E-05 1,97E-05 2,03E-08	-2,10E-03 -6,10E-03 -9,78E-03
P O C	GWP-biogenic GWP-luluc ODP AP	kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CFC11 -eq mol H+ -eq	0 0 0 0	0 0 0 0	1,48E-05 1,27E-05 8,28E-09 1,49E-04	3,67E+00 1,62E-05 6,23E-09 6,51E-04	4,85E-05 1,97E-05 2,03E-08 4,61E-04	-2,10E-03 -6,10E-03 -9,78E-03 -1,75E-02
	GWP-biogenic GWP-luluc ODP AP EP-FreshWater	kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CFC11 -eq mol H+ -eq kg P -eq	0 0 0 0 0	0 0 0 0 0	1,48E-05 1,27E-05 8,28E-09 1,49E-04 2,85E-07	3,67E+00 1,62E-05 6,23E-09 6,51E-04 1,85E-06	4,85E-05 1,97E-05 2,03E-08 4,61E-04 6,32E-07	-2,10E-03 -6,10E-03 -9,78E-03 -1,75E-02 -2,15E-04
	GWP-biogenic GWP-luluc ODP AP EP-FreshWater EP-Marine	kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CFC11 -eq mol H+ -eq kg P -eq kg N -eq	0 0 0 0 0 0	0 0 0 0 0 0	1,48E-05 1,27E-05 8,28E-09 1,49E-04 2,85E-07 4,41E-05	3,67E+00 1,62E-05 6,23E-09 6,51E-04 1,85E-06 2,80E-04	4,85E-05 1,97E-05 2,03E-08 4,61E-04 6,32E-07 1,65E-04	-2,10E-03 -6,10E-03 -9,78E-03 -1,75E-02 -2,15E-04 -3,76E-03
	GWP-biogenic GWP-luluc ODP AP EP-FreshWater EP-Marine EP-Terrestial	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	0 0 0 0 0 0 0	0 0 0 0 0 0 0	1,48E-05 1,27E-05 8,28E-09 1,49E-04 2,85E-07 4,41E-05 4,87E-04	3,67E+00 1,62E-05 6,23E-09 6,51E-04 1,85E-06 2,80E-04 3,00E-03	4,85E-05 1,97E-05 2,03E-08 4,61E-04 6,32E-07 1,65E-04 1,82E-03	-2,10E-03 -6,10E-03 -9,78E-03 -1,75E-02 -2,15E-04 -3,76E-03 -3,87E-02
	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 CFC11 -eq 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 0 0 0 0 0 0	1,48E-05 1,27E-05 8,28E-09 1,49E-04 2,85E-07 4,41E-05 4,87E-04 1,49E-04	3,67E+00 1,62E-05 6,23E-09 6,51E-04 1,85E-06 2,80E-04 3,00E-03 8,13E-04	4,85E-05 1,97E-05 2,03E-08 4,61E-04 6,32E-07 1,65E-04 1,82E-03 5,25E-04	-2,10E-03 -6,10E-03 -9,78E-03 -1,75E-02 -2,15E-04 -3,76E-03 -3,87E-02 -1,76E-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** 

dditional er	vironmental impac	t indicators						
	Indicator	Unit		A1-A3	A4	A5	B2	B3
	PM	Disease incidence		2,60E-06	3,49E-08	8,51E-10	1,68E-10	0
	IRP <sup>2</sup>	kgBq U235 -eq		8,62E+00	2,69E-02	5,89E-04	4,05E-04	0
	ETP-fw <sup>1</sup>	CTUe		1,47E+03	4,51E+00	1,84E-01	6,34E-02	0
464.** *****	HTP-c <sup>1</sup>	CTUh		2,26E-07	0,00E+00	9,00E-12	9,00E-12	0
4 <u>8</u>	HTP-nc <sup>1</sup>	CTUh	CTUh		4,36E-09	4,14E-10	2,11E-10	0
è	SQP <sup>1</sup>	dimensionless		4,57E+02	7,07E+00	9,20E-02	1,64E-02	0
h	ndicator	Unit	B4	C1	C2	C3	C4	D
	PM	Disease incidence	0	0	2,62E-09	1,90E-08	8,48E-09	-3,41E-07
	IRP <sup>2</sup>	kgBq U235 -eq	0	0	2,40E-03	1,66E-03	5,97E-03	-3,85E-04
	ETP-fw <sup>1</sup>	CTUe	0	0	4,04E-01	3,83E+00	8,59E-01	-1,95E+02
49.* ****	HTP-c <sup>1</sup>	CTUh	0	0	0,00E+00	4,95E-10	3,10E-11	-1,61E-08
48- E	HTP-nc <sup>1</sup>	CTUh	0	0	4,36E-10	5,86E-09	7,85E-10	3,36E-07
è	SQP <sup>1</sup>	dimensionless	0	0	3,78E-01	1,39E-01	3,24E+00	-1,49E+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" \*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		U	nit	A1-A3	A4	A5	B2	B3
i de la companya de l	PERE		MJ		2,01E+02	7,76E-02	2,53E-03	7,96E-03	0
ALL AND	PERM	PERM		MJ		0,00E+00	-9,06E+00	0,00E+00	0
°F1	PERT		Ν	Ŋ	2,41E+02	7,76E-02	-9,06E+00	7,96E-03	0
(A)	PENRE		Ν	Ŋ	5,11E+02	6,16E+00	1,44E-01	5,86E-02	0
Åa.	PENRM		Ν	Ŋ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0
IA	PENRT		Ν	Ŋ	5,11E+02	6,16E+00	1,44E-01	5,86E-02	0
	SM		k	g	4,37E-02	0,00E+00	0,00E+00	0,00E+00	0
1	RSF		MJ		7,73E-01	2,71E-03	8,05E-05	6,38E-04	0
19	MRSF NRSF		MJ		2,13E+01	9,10E-03	5,04E-04	6,29E-04	0
<b>%</b>			m <sup>3</sup>		5,03E-01	7,02E-04	7,79E-05	1,01E-02	0
	icator	U	Init	B4	C1	C2	C3	C4	D
ind ्रह्ने उट्टे	icator PERE		I <b>nit</b> MJ	B4 0	C1 0	C2 7,73E-03	C3 2,84E-02	C4 2,70E-02	D -1,41E+01
		N							
î, G	PERE	N	MJ	0	0	7,73E-03	2,84E-02	2,70E-02	-1,41E+01
ir Se L	PERE PERM	N N N	UN LIN	0	0	7,73E-03 0,00E+00	2,84E-02 -3,08E+01	2,70E-02 0,00E+00	-1,41E+01 0,00E+00
ूर उन्हें क्र	PERE PERM PERT	N N N	riw riw	0 0 0	0 0 0	7,73E-03 0,00E+00 7,73E-03	2,84E-02 -3,08E+01 -3,07E+01	2,70E-02 0,00E+00 2,70E-02	-1,41E+01 0,00E+00 -1,41E+01
्ट्र 23 ्र स्ट्रि	PERE PERM PERT PENRE		וא וא וא	0 0 0 0	0 0 0 0	7,73E-03 0,00E+00 7,73E-03 5,48E-01	2,84E-02 -3,08E+01 -3,07E+01 6,41E-01	2,70E-02 0,00E+00 2,70E-02 1,50E+00	-1,41E+01 0,00E+00 -1,41E+01 -2,97E+01
	PERE PERM PERT PENRE PENRM	N N N N N	им имп имп имп имп имп	0 0 0 0	0 0 0 0	7,73E-03 0,00E+00 7,73E-03 5,48E-01 0,00E+00	2,84E-02 -3,08E+01 -3,07E+01 6,41E-01 0,00E+00	2,70E-02 0,00E+00 2,70E-02 1,50E+00 0,00E+00	-1,41E+01 0,00E+00 -1,41E+01 -2,97E+01 0,00E+00
	PERE PERM PERT PENRE PENRM PENRT	N N N N N	им им им им тим тим тим	0 0 0 0 0	0 0 0 0 0	7,73E-03 0,00E+00 7,73E-03 5,48E-01 0,00E+00 5,48E-01	2,84E-02 -3,08E+01 -3,07E+01 6,41E-01 0,00E+00 6,41E-01	2,70E-02 0,00E+00 2,70E-02 1,50E+00 0,00E+00 1,50E+00	-1,41E+01 0,00E+00 -1,41E+01 -2,97E+01 0,00E+00 -2,97E+01
	PERE PERM PERT PENRE PENRM PENRT SM	N N N N K	kà мл мл мл мл	0 0 0 0 0 0 0	0 0 0 0 0 0	7,73E-03 0,00E+00 7,73E-03 5,48E-01 0,00E+00 5,48E-01 0,00E+00	2,84E-02 -3,08E+01 -3,07E+01 6,41E-01 0,00E+00 6,41E-01 0,00E+00	2,70E-02 0,00E+00 2,70E-02 1,50E+00 0,00E+00 1,50E+00 0,00E+00	-1,41E+01 0,00E+00 -1,41E+01 -2,97E+01 0,00E+00 -2,97E+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			Unit		A4	A5	B2	B3		
Â	HWD	HWD		kg		3,37E-04	0,00E+00	1,11E-05	0		
Ū	NHWD		k	g	1,51E+01	5,36E-01	5,85E-01	7,11E-04	0		
R	RWD		kg		4,15E-03	4,21E-05	0,00E+00	3,43E-07	0		
In	dicator		Unit	B4	C1	C2	C3	C4	D		
A	HWD		kg	0	0	2,79E-05	0,00E+00	5,87E+00	-1,73E-02		
Ū	NHWD		kg	0	0	2,62E-02	0,00E+00	3,95E-02	-1,40E+00		
8	RWD		kg	0	0	3,74E-06	0,00E+00	9,18E-06	-9,27E-07		

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	U	Unit		A4	A5	B2	B3
ŵÞ	CRU	ł	kg		0,00E+00	0,00E+00	0,00E+00	0
\$	MFR	ł	¢σ	1,90E+00	0,00E+00	4,28E-01	0,00E+00	0
$\nabla \nabla$	MER	ł	٨g	2,74E-01	0,00E+00	1,24E-01	0,00E+00	0
ØÞ	EEE	٩	MJ		0,00E+00	1,13E-01	0,00E+00	0
DØ	EET	٩	MJ		0,00E+00	1,70E+00	0,00E+00	0
Indicato	pr	Unit	B4	C1	C2	C3	C4	D
$\langle \hat{\varphi} \rangle$	CRU	kg	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
$\langle S \rangle$	MFR	kg	0	0	0,00E+00	3,02E+00	0,00E+00	0,00E+00
DF	MER	kg	0	0	0,00E+00	1,11E+01	0,00E+00	0,00E+00
$\overline{\mathcal{P}}$	EEE	MJ	0	0	0,00E+00	1,78E+00	0,00E+00	0,00E+00
DB	EET	MJ	0	0	0,00E+00	2,69E+01	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	1,20E+00							
Biogenic carbon content in accompanying packaging	kg C	2,65E-01							

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

The product is suitable for indoor use.

#### **Additional Environmental Information**

#### **Key Environmental Indicators**

Key environmental indicators	Unit	A1-A3	A4	A1-C4	A1-D
GWPtotal	kg CO <sub>2</sub> -eq	24,33	0,40	29,55	26,10
Total energy consumption	MJ	734,70	6,25	743,96	703,00
Amount of recycled materials	%	0,37			

Additional environmental impact indicators required in NPCR Part A for construction products							
Indicator	Unit	Unit		A4	A5	B2	B3
GWPIOBC	kg CO <sub>2</sub> -eq	kg CO <sub>2</sub> -eq		3,96E-01	1,08E-02	3,45E-03	0
Indicator	Unit	B4	C1	C2	C3	C4	D
GWPIOBC	kg CO <sub>2</sub> -eq	0	0	3,64E-02	6,90E-02	6,42E-02	-5,09E+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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