

# Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

# Shape Storage Low





The Norwegian EPD Foundation

**Owner of the declaration:** AB Edsbyverken

**Product:** Shape Storage Low

**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-8718-8365

**Registration number:** 

NEPD-8718-8365

Issue date: 15.01.2025

Valid to: 15.01.2030

**EPD software:** LCAno EPD generator ID: 744500



# **General information**

#### Product

Shape Storage Low

#### **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-8718-8365

#### 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 Shape Storage Low

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

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

#### **Functional unit:**

Dynamic and practical storage with a focus on flexibility and options to meet the unique needs of each room. Shape Storage Low is available with 2, 3, 4, 6, 8, 9 or 12 lockers.

This main EPD is based on Shape Storage Low (12 lockers) in melamine with a Depth of 501 mm. Other sizes and materials are calculated as Variants. Doors and plinths are calculated separately as options.

The frontpage photo shows Shape storage low with optional seat pad in between Shape wardrobes (5 high) with low lockers instead of one door

#### 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:

#### 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:

15.01.2025

#### Valid to:

15.01.2030

#### Year of study:

2024

#### **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

Managing Director of EPD-Norway

# EDSBYN

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)



# Product

#### **Product description:**

Dynamic and practical storage with a focus on flexibility and options to meet the unique needs of each room. All modules can be combined both horizontally and vertically.

Create your own storage by combining practical wardrobes with shoe racks, benches, and personalized storage. Doors are available in multiple heights and can be chosen with different types of locks, handles, and knobs. Add open or low storage to create the right ambiance in the room. The modules are installed on plinths that come in three optional heights.

Shape Storage Low is available with 2, 3, 4, 6, 8, 9 or 12 lockers, in a variety of colors and veneers. Shape Storage Low can also be chosen in depths of 431 or 596 mm. (These depths are with doors. Doors are calculated in options.) (Depths without doors: 415 and 580 mm).

More information about the product can be found here: https://www.edsbyn.com/products/shape/storage/

#### **Product specification**

Office furniture, personal locker - Shape Storage Low with 12 lockers. (Doors calculated separately as options). Carcass and shelves in melamine faced chipboard with matching ABS edge strip.

12 lockers (3 width x 4 height) measures: Width 1213 mm, Depth including doors 501 mm.

- Total Height varies depending on your choice of plinth:
- 1536 mm without plinth
- 1566 mm with plinth 30 mm
- 1664 mm with plinth 128 mm
- 1856 mm with plinth 320 mm.

Other shapes and sizes of the carcass are calculated in Variants. Plinths and doors are calculated separately in Options.

Materials	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Glue for wood	0,15	0,22	0,00	0,00
Plastic - Polypropylene (PP)	0,05	0,08	0,00	0,00
Wood - Chipboard	59,58	91,73	24,46	41,05
Wood - Medium Density Fibreboard (MDF)	4,28	6,59	0,00	0,00
Metal - Stainless steel	0,09	0, 14	0,02	21,83
Plastic - Acrylonitrile butadiene styrene (ABS)	0,81	1,24	0,00	0,00
Total	64,96	100,00	24,48	
Packaging	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Packaging - Plastic	0,02	1,58	0,00	0,00
Recycled cardboard	1,24	98,42	1,24	100,00
Total incl. packaging	66,22	100,00	25,72	

#### **Technical data:**

Möbelfakta certified product.

#### Market:

Europe.

#### **Reference service life, product**

5 years warranty. Depending on chosen surface material and maintenance of the product the RSL varies from 5 to 10+ years.

Reference service life, building

## **LCA: Calculation rules**

Declared unit:



#### 1 pcs Shape Storage Low

#### 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.

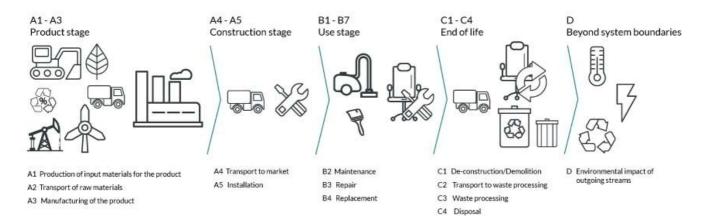
Materials	Source	Data quality	Year
Glue for wood	ecoinvent 3.6	Database	2019
Metal - Stainless steel	ecoinvent 3.6	Database	2019
Packaging - Plastic	ecoinvent 3.6	Database	2019
Plastic - Acrylonitrile butadiene styrene (ABS)	ecoinvent 3.6	Database	2019
Plastic - Polypropylene (PP)	ecoinvent 3.6	Database	2019
Recycled cardboard	Modified ecoinvent 3.6	Database	2019
Wood - Chipboard	EPD-EGG-20200251-IBC1-EN	EPD	2018
Wood - Medium Density Fibreboard (MDF)	EPD-NIBE-20210326-18330	EPD	2019

# EDSBYN

#### Construction installation stage Beyond the system Product stage Use stage End of life stage boundari Manufacturing Reuse-Recovery-Recycling-potential Refurbishment Maintenance Replacement De-nstruction Operational Dperational Waste use Raw materials Disposal Transport Transport Transport Assembly energy Repair olitio Use use vater B4 C1 C2 C3 C4 D A1 A2 A3 A4 A5 B1 B2 B3 B5 B6 Β7 MND MND MND х X X X Х MND Х Х Х Х Х Х Х Х

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

#### System boundary:



#### Additional technical information:



# 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 %	300	0,043	l/tkm	12,90
Assembly (A5)	Unit	Value			
Waste, packaging, cardboard, 100 % recycled, to average treatment (kg)	kg	1,24			
Waste, packaging, plastic tape, to average treatment (kg)	kg	0,020			
Maintenance (B2)	Unit	Value			
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, EURO 6 (km)	36,7 %	50	0,043	l/tkm	2,15
Waste processing (C3)	Unit	Value			
Waste treatment per kg Non-hazardous waste, incineration with fly ash extraction - C3 (kg)	kg	59,58			
Waste treatment per kg Wood, incineration with fly ash extraction (kg)	kg	4,27			
Waste treatment per kg Plastics, Mixture, municipal incineration with fly ash extraction (kg)	kg	0,80			
Waste treatment per kg Hazardous waste, incineration (kg)	kg	0,14			
Waste, materials to recycling (kg)	kg	0,030			
Waste treatment per kg Scrap steel, incineration with fly ash extraction (kg)	kg	0,090			
Waste treatment per kg Polypropylene (PP), incineration with fly ash extraction - C3 (kg)	kg	0,054			
Disposal (C4)	Unit	Value			
Landfilling of ashes from incineration of Non- hazardous waste, process per kg ashes and residues - C4 (kg)	kg	14,13			
Landfilling of ashes from incineration of Wood, process per kg ashes and residues (kg)	kg	0,049			
Landfilling of ashes from incineration of Plastics, Mixture, municipal incineration with fly ash extraction, process per kg ashes and residues - C4 (kg)	kg	0,028			
Landfilling of ashes from incineration of Hazardous waste, from incineration (kg)	kg	0,027			
Landfilling of ashes and residues from incineration of Scrap steel (kg)	kg	0,059			
Landfilling of ashes from incineration of Polypropylene, PP, process per kg ashes and residues - C4 (kg)	kg	0,0016			
Benefits and loads beyond the system boundaries (D)	Unit	Value			
Substitution of electricity, in Norway (MJ)	MJ	39,70			
Substitution of thermal energy, district heating, in Norway (MJ)	MJ	600,72			
Substitution of primary steel with net scrap (kg)	kg	0,023			

# LCA: Results

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

	ental impact								
	Indicator		Unit		A1-A3	A4	A5	B2	B3
P	GWP-total		kg CO <sub>2</sub> -e	eq	-4,37E+01	3,25E+00	2,13E+00	2,69E-01	0
P	GWP-fossil		kg CO <sub>2</sub> -eq		5,61E+01	3,24E+00	2,17E-02	2,67E-01	0
P	GWP-biogenic		kg CO <sub>2</sub> -e	eq	-1,00E+02	1,34E-03	2,11E+00	1,68E-03	0
P	GWP-luluc		kg CO <sub>2</sub> -e	eq	3,37E-01	1,15E-03	6,77E-06	4,35E-04	0
Ò	ODP		kg CFC11	-eq	6,96E-06	7,35E-07	4,34E-09	2,37E-08	0
(E)	АР		mol H+ -	eq	1,80E-01	9,33E-03	9,72E-05	1,56E-03	0
æ	EP-FreshWater		kg P -ec	1	7,93E-04	2,59E-05	1,68E-07	2,14E-05	0
æ	EP-Marine		kg N -eo	7	4,77E-02	1,85E-03	3,33E-05	2,48E-04	0
	EP-Terrestial		mol N -e	p	4,87E-01	2,06E-02	3,48E-04	2,88E-03	0
	POCP		kg NMVOC	-eq	1,38E-01	7,91E-03	1,00E-04	9,05E-04	0
E.	ADP-minerals&metals <sup>1</sup>		kg Sb-eo	9	7,75E-04	8,96E-05	4,98E-07	7,48E-06	0
B	ADP-fossil <sup>1</sup>		MJ		1,46E+03	4,91E+01	2,88E-01	4,57E+00	0
<b>%</b>	WDP <sup>1</sup>		m <sup>3</sup>		5,10E+04	4,75E+01	3,80E-01	8,18E+01	0
$\sim$									
	Indicator		Unit	B4	C1	C2	C3	C4	D
P	Indicator GWP-total		<b>Unit</b> kg CO <sub>2</sub> -eq	B4 0	C1 0	C2 5,41E-01	C3 2,41E+02	C4 5,42E-02	D -3,64E+00
P	GWP-total		kg CO <sub>2</sub> -eq	0	0	5,41E-01	2,41E+02	5,42E-02	-3,64E+00
P	GWP-total GWP-fossil		kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq	0 0	0	5,41E-01 5,41E-01	2,41E+02 1,42E+02	5,42E-02 5,42E-02	-3,64E+00 -3,51E+00
P P P	GWP-total GWP-fossil GWP-biogenic		kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq kg CO <sub>2</sub> -eq	0 0 0	0 0 0	5,41E-01 5,41E-01 2,24E-04	2,41E+02 1,42E+02 9,90E+01	5,42E-02 5,42E-02 6,50E-06	-3,64E+00 -3,51E+00 -7,21E-03
P P P	GWP-total GWP-fossil GWP-biogenic GWP-luluc		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	5,41E-01 5,41E-01 2,24E-04 1,92E-04	2,41E+02 1,42E+02 9,90E+01 2,44E-03	5,42E-02 5,42E-02 6,50E-06 1,38E-05	-3,64E+00 -3,51E+00 -7,21E-03 -1,20E-01
P P P P	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP		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	0 0 0 0	0 0 0 0 0	5,41E-01 5,41E-01 2,24E-04 1,92E-04 1,23E-07	2,41E+02 1,42E+02 9,90E+01 2,44E-03 9,69E-07	5,42E-02 5,42E-02 6,50E-06 1,38E-05 1,42E-08	-3,64E+00 -3,51E+00 -7,21E-03 -1,20E-01 -2,54E-01
P P P P 0	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP		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	0 0 0 0 0	0 0 0 0 0 0	5,41E-01 5,41E-01 2,24E-04 1,92E-04 1,23E-07 1,55E-03	2,41E+02 1,42E+02 9,90E+01 2,44E-03 9,69E-07 2,15E-02	5,42E-02 5,42E-02 6,50E-06 1,38E-05 1,42E-08 3,24E-04	-3,64E+00 -3,51E+00 -7,21E-03 -1,20E-01 -2,54E-01 -2,88E-02
	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 kg CFC11 -eq mol H+ -eq kg P -eq	0 0 0 0 0 0 0	0 0 0 0 0 0 0	5,41E-01 5,41E-01 2,24E-04 1,92E-04 1,23E-07 1,55E-03 4,32E-06	2,41E+02 1,42E+02 9,90E+01 2,44E-03 9,69E-07 2,15E-02 1,01E-04	5,42E-02 5,42E-02 6,50E-06 1,38E-05 1,42E-08 3,24E-04 5,48E-07	-3,64E+00 -3,51E+00 -7,21E-03 -1,20E-01 -2,54E-01 -2,88E-02 -3,11E-04
	GWP-total GWP-fossil GWP-biogenic GWP-luluc ODP AP EP-FreshWater EP-Marine		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	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	5,41E-01 5,41E-01 2,24E-04 1,92E-04 1,23E-07 1,55E-03 4,32E-06 3,08E-04	2,41E+02 1,42E+02 9,90E+01 2,44E-03 9,69E-07 2,15E-02 1,01E-04 8,07E-03	5,42E-02 5,42E-02 6,50E-06 1,38E-05 1,42E-08 3,24E-04 5,48E-07 1,13E-04	-3,64E+00 -3,51E+00 -7,21E-03 -1,20E-01 -2,54E-01 -2,88E-02 -3,11E-04 -9,41E-03
	GWP-total GWP-fossil 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 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 0 0 0 0	5,41E-01 5,41E-01 2,24E-04 1,92E-04 1,23E-07 1,55E-03 4,32E-06 3,08E-04 3,44E-03	2,41E+02 1,42E+02 9,90E+01 2,44E-03 9,69E-07 2,15E-02 1,01E-04 8,07E-03 8,04E-02	5,42E-02 5,42E-02 6,50E-06 1,38E-05 1,42E-08 3,24E-04 5,48E-07 1,13E-04 1,25E-03	-3,64E+00 -3,51E+00 -7,21E-03 -1,20E-01 -2,54E-01 -2,88E-02 -3,11E-04 -9,41E-03 -1,02E-01
	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 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0	5,41E-01 5,41E-01 2,24E-04 1,92E-04 1,23E-07 1,55E-03 4,32E-06 3,08E-04 3,44E-03 1,32E-03	2,41E+02 1,42E+02 9,90E+01 2,44E-03 9,69E-07 2,15E-02 1,01E-04 8,07E-03 8,04E-02 1,98E-02	5,42E-02 5,42E-02 6,50E-06 1,38E-05 1,42E-08 3,24E-04 5,48E-07 1,13E-04 1,25E-03 3,60E-04	-3,64E+00 -3,51E+00 -7,21E-03 -1,20E-01 -2,54E-01 -2,88E-02 -3,11E-04 -9,41E-03 -1,02E-01 -2,81E-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** 



Additional environmental impact indicators									
	Indicator	Unit		A1-A3	A4	A5	B2	B3	
	PM	Disease incidence		2,39E-06	1,99E-07	1,44E-09	1,31E-08	0	
(Im) E	IRP <sup>2</sup>	kgBq U235 -eq		1,97E+01	2,14E-01	1,23E-03	3,16E-02	0	
	ETP-fw <sup>1</sup>	CTUe		8,89E+02	3,64E+01	3,81E-01	4,95E+00	0	
44 * ****	HTP-c <sup>1</sup>	CTUh		3,60E-08	0,00E+00	1,10E-11	7,39E-10	0	
28 E	HTP-nc <sup>1</sup>	CTUh		7,53E-07	3,97E-08	4,77E-10	1,64E-08	0	
	SQP <sup>1</sup>	dimensionless		4,02E+03	3,43E+01	2,00E-01	1,28E+00	0	
li	ndicator	Unit	B4	C1	C2	C3	C4	D	
	PM	Disease incidence	0	0	3,31E-08	1,28E-07	5,61E-09	-1,74E-06	
(m) B	IRP <sup>2</sup>	kgBq U235 -eq	0	0	3,57E-02	1,01E-01	4,35E-03	-3,18E-01	
 	ETP-fw <sup>1</sup>	CTUe	0	0	6,06E+00	3,78E+02	1,21E+00	-2,72E+02	
40.* ****	HTP-c <sup>1</sup>	CTUh	0	0	0,00E+00	1,20E-08	6,80E-11	-5,09E-09	
88 E	HTP-nc <sup>1</sup>	CTUh	0	0	6,62E-09	2,57E-07	2,31E-09	-2,57E-07	
è	SQP <sup>1</sup>	dimensionless	0	0	5,72E+00	5,44E+00	1,60E+00	-3,33E+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.

# EDSBYN

Resource use									
	Indicator		U	nit	A1-A3	A4	A5	B2	B3
in the second se	PERE		Ν	LN	9,85E+02	7,02E-01	4,80E-03	6,21E-01	0
E.	PERM		Ν	Ŋ	1,01E+03	0,00E+00	-7,27E+00	0,00E+00	0
° <b>≓</b> s	PERT		Ν	NJ	2,00E+03	7,02E-01	-7,27E+00	6,21E-01	0
E)	PENRE		Ν	NJ	1,34E+03	4,91E+01	2,88E-01	4,57E+00	0
Ås.	PENRM		Ν	NJ	1,51E+02	0,00E+00	-7,32E-01	0,00E+00	0
IA	PENRT		Ν	Ŋ	1,49E+03	4,91E+01	-4,44E-01	4,57E+00	0
	SM		k	g	3,07E+01	0,00E+00	0,00E+00	0,00E+00	0
	RSF		Ν	Ŋ	7,54E+01	2,51E-02	1,58E-04	4,98E-02	0
	NRSF		MJ		3,48E+00	8,98E-02	6,45E-04	4,91E-02	0
(%)	FW		n	n <sup>3</sup>	7,89E-01	5,25E-03	1,36E-04	7,85E-01	0
In									
	dicator	Ui	nit	B4	C1	C2	C3	C4	D
i ji	PERE		<b>nit</b> MJ	B4 0	C1 0	C2 1,17E-01	C3 2,61E+00	C4 2,57E-02	D -3,08E+02
		M							
i D	PERE	N	Ŋ	0	0	1,17E-01	2,61E+00	2,57E-02	-3,08E+02
i T	PERE PERM	N N	rıv rıv	0	0	1,17E-01 0,00E+00	2,61E+00 -1,00E+03	2,57E-02 0,00E+00	-3,08E+02 0,00E+00
्र छि मु	PERE PERM PERT	N N N	נא נא נא	0 0 0	0 0 0	1,17E-01 0,00E+00 1,17E-01	2,61E+00 -1,00E+03 -1,00E+03	2,57E-02 0,00E+00 2,57E-02	-3,08E+02 0,00E+00 -3,08E+02
کی بی بی ک	PERE PERM PERT PENRE	N N N N	IN IN IN	0 0 0 0	0 0 0 0	1,17E-01 0,00E+00 1,17E-01 8,18E+00	2,61E+00 -1,00E+03 -1,00E+03 3,21E+01	2,57E-02 0,00E+00 2,57E-02 1,05E+00	-3,08E+02 0,00E+00 -3,08E+02 -5,00E+01
	PERE PERM PERT PENRE PENRM	N N N N N	וא וא וא וא	0 0 0 0	0 0 0 0	1,17E-01 0,00E+00 1,17E-01 8,18E+00 0,00E+00	2,61E+00 -1,00E+03 -1,00E+03 3,21E+01 -1,48E+02	2,57E-02 0,00E+00 2,57E-02 1,05E+00 0,00E+00	-3,08E+02 0,00E+00 -3,08E+02 -5,00E+01 0,00E+00
	PERE PERM PERT PENRE PENRM PENRT	M M M M M K	וא וא וא וא ויא ויא	0 0 0 0 0	0 0 0 0 0	1,17E-01 0,00E+00 1,17E-01 8,18E+00 0,00E+00 8,18E+00	2,61E+00 -1,00E+03 -1,00E+03 3,21E+01 -1,48E+02 -1,16E+02	2,57E-02 0,00E+00 2,57E-02 1,05E+00 0,00E+00 1,05E+00	-3,08E+02 0,00E+00 -3,08E+02 -5,00E+01 0,00E+00 -5,00E+01
	PERE PERM PERT PENRE PENRM PENRT SM	M M M M K K	ка мл мл мл мл мл мл мл	0 0 0 0 0 0	0 0 0 0 0 0 0	1,17E-01 0,00E+00 1,17E-01 8,18E+00 0,00E+00 8,18E+00 0,00E+00	2,61E+00 -1,00E+03 -1,00E+03 3,21E+01 -1,48E+02 -1,16E+02 0,00E+00	2,57E-02 0,00E+00 2,57E-02 1,05E+00 0,00E+00 1,05E+00 0,00E+00	-3,08E+02 0,00E+00 -3,08E+02 -5,00E+01 0,00E+00 -5,00E+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; SENRE = Use of non renewable primary energy excluding non-renewable primary energy resources; SENRE = Use of secondary materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary materials; RSF = Use of 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	End of life - Waste									
	Indicator		U	nit	A1-A3	A4	A5	B2	B3	
A	HWD	HWD		g	1,53E-01	2,53E-03	0,00E+00	8,64E-04	0	
Ū	NHWD		k	g	1,76E+01	2,39E+00	1,26E+00	5,55E-02	0	
1. M	RWD	kg		1,96E-02	3,34E-04	0,00E+00	2,68E-05	0		
In	dicator		Unit	B4	C1	C2	C3	C4	D	
A	HWD		kg	0	0	4,22E-04	0,00E+00	1,22E+01	-2,48E-03	
Ū	NHWD		kg	0	0	3,98E-01	5,97E+01	2,05E+00	-1,19E+00	
æ	RWD		kg	0	0	5,57E-05	0,00E+00	2,30E-05	-2,61E-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	icator	Ur	nit	A1-A3	A4	A5	B2	B3	
¢۵	CRU	k	9	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0	
\$	MFR	k	9	4,84E+00	0,00E+00	1,17E+00	0,00E+00	0	
DFJ	MER	k	9	8,00E+00	0,00E+00	2,69E-06	0,00E+00	0	
50	EEE	N	IJ	5,60E+00	0,00E+00	7,11E-02	0,00E+00	0	
DØ	EET	N	IJ	8,47E+01	0,00E+00	1,08E+00	0,00E+00	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	
\$\$ <b>\</b>	MFR	kg	0	0	0,00E+00	3,05E-02	0,00E+00	0,00E+00	
DF	MER	kg	0	0	0,00E+00	6,50E+01	0,00E+00	0,00E+00	
۶D	EEE	MJ	0	0	0,00E+00	4,32E+00	0,00E+00	0,00E+00	
DB	EET	MJ	0	0	0,00E+00	6,54E+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	2,70E+01						
Biogenic carbon content in accompanying packaging	kg C	6,04E-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

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	-43,72	3,25	203,53	199,89
Total energy consumption	MJ	2398,49	49,88	2498, 18	2122,27
Amount of recycled materials	%	38,85			

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		3,25E+00	2,17E-02	2,69E-01	0	
Indicator	Unit	B4	C1	C2	C3	C4	D	
GWPIOBC	kg CO <sub>2</sub> -eq	0	0	5,41E-01	7,76E+01	1,77E-01	-3,60E+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 (%)		
Shape Storage Low 12 - (Depth:431)	57,34	-37,28	2093,53	38,40		
Shape Storage Low 12 - (Depth:596)	78,32	-52,46	2814,00	39,29		
Shape Storage Low 12 - (Veneer)	72,98	-54,99	2291,91	1,73		
Shape Storage Low 12 - (Lacquer)	70,96	-40,40	2687,41	36,25		
Shape Storage Low 2 high (D:485)	15,12	-9,20	554,09	40,23		
Shape Storage Low 3 high	21,35	-13,42	777,23	39,61		
Shape Storage Low 4 high (D:485)	27,58	-17,63	1000,50	39,27		
Shape Storage Low 2 wide (D:485)	15,49	-9,35	569,66	41,66		
Shape Storage Low 4 wide (D:485)	25,96	-16,46	946,27	40,04		
Shape Storage Low 6 high (D:485)	36,43	-23,57	1322,81	39,35		
Shape Storage Low 8 (D:485)	46,90	-30,68	1699,42	38,97		
Shape Storage Low 3 wide (D:485)	22,10	-13,72	808,53	41,64		
Shape Storage Low 6 wide (D:485)	36,81	-23,72	1338,52	39,96		
Shape Storage Low 9 (D:485)	51,52	-33,72	1868,64	39,25		

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 (%)		
Plinth for Shape 411x460x30 (low)	2,84	-0,73	88,64	39,09		
Plinth for Shape 810x460x30 (low)	4,03	-1,94	136,63	39,55		
Plinth for Shape 1209x460x30 (low)	6,06	-3,22	187,08	39,72		
Plinth for Shape 411x460x128 (medium)	3,54	-2,31	116,31	40,60		
Plinth for Shape 810x460x128 (medium)	4,56	-2,98	141,04	40,59		
Plinth for Shape 1209x460x128 (medium)	5,56	-3,64	165,24	40,60		
Plinth for Shape 411x460x320 (high)	6,84	-4,35	240,67	40,52		
Plinth for Shape 810x460x320 (high)	9,67	-6,25	273,91	48,99		
Plinth for Shape 1209x460x320 (high)	12,70	-8,46	348,26	49,25		
Door for Shape Storage Low (D:16) - (Melamine)	1,82	0,43	80,88	38,04		
Door for Shape Storage Low (D:16) - (Lacquer)	1,84	0,59	83,46	37,52		
Door for Shape Storage Low (D:16) - (Veneer)	1,99	-0,09	74,71	1,91		
Seat pad for Shape - 814x490x41	5,46	15,97	284,59	11,96		
Seat pad for Shape - 1213x490x41	8,14	23,35	421,79	11,95		





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