

# Environmental product declaration

in accordance with ISO 14025 and EN 15804+A2

## Space Open Storage



Kinnarps\_

**Owner of the declaration:** Kinnarps AB

Product: Space Open Storage

**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-7476-6865-EN

**Registration number:** 

NEPD-7476-6865-EN

Issue date: 06.09.2024

Valid to: 06.09.2029

**EPD software:** LCAno EPD generator ID: 358018

The Norwegian EPD Foundation





## **General information**

Product

Space Open Storage

#### 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-7476-6865-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 Space Open Storage

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

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

#### Functional unit:

Production of one storage unit, provided and maintained for a period of 15 years.

#### 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:

Kinnarps AB Contact person: Johanna Ljunggren - Corporate Sustainability Manager Phone: +46 515 381 21 e-mail: johanna.ljunggren@kinnarps.se

#### Manufacturer:

Kinnarps AB

#### **Place of production:**

Kinnarps AB Industrigatan 521 88 Kinnarp, Sweden

#### Management system:

ISO 9001, ISO 14001, ISO 45001

#### **Organisation no:**

556256-6736

#### Issue date:

06.09.2024

Valid to: 06.09.2029

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: Rickard Thil

Reviewer of company-specific input data and EPD: Isabell Vesterberg

Approved:

Håkon Hauan Managing Director of EPD-Norway



## Product

#### **Product description:**

Space S2P800O in laminate finish with one wooden shelf. Underframes and wall hanging brackets available as options.

Practical open storage cupboard that offers a good overview of its contents. There's a large selection of carcasses to choose from in different heights, widths and depths. Link modules together to extend the width or stack them on top of each other to extend the height. Select both an exterior and interior finish to get an organised and functional storage unit that's also a well-designed solution. There are several underframes to choose from, and with the help of leg reduction, you get a stylish and clean expression when several units are placed next to each other.

Read more: https://www.kinnarps.com/products/storage/space-open-storage/

#### **Product specification**

Choose from different materials and colours. The versatile and functional Space storage range consists of a large selection of well-designed modules in different materials, colours and finishes. They can be connected and customised to your needs, based on the functionality and look you want.

This EPD includes the following variants: Space Open Storage - S2P800O - Veneer Space Open Storage - S3P800O - Laminate Space Open Storage - S4P800O - Laminate Space Open Storage - S5P800O - Laminate

Included options are: Wooden plinth, PLBAW, 800x400 mm Metal plinth, PLBA, 800x400 mm Metal leg frame, LR, 800x400 mm Mobile underframe, MOB, 800x400mm Wall hanging kit for Space Sound Absorbent Space, BAFA, - Wool blend fabric

Materials	kg	%	material (kg)	
Wood - Chipboard	22,02	97,45	9,91	45,00
Plastic - Acrylonitrile butadiene styrene (ABS)	0,58	2,55	0,00	0,00
Total	22,60	100,00	9,91	

#### Technical data:

The Space series is tested and compliant with the following certifications and standards:

Certifications: Swedish Möbelfakta, NF Environnement, NF OEC, GS.

Fullfilled technical standards: EN 16121:2013 + A1 2018 L1 Non-domestic storage furniture - Requirements for safety, strength, durability and stability.

Fullfilled emission tests: Indoor Air Comfort Gold, ANSI/BIFMA M7.1\_2011, M1.

Market: Mainly Europe, but is available worldwide.

#### Reference service life, product

15 years.

Reference service life, building

## **LCA: Calculation rules**



#### Declared unit:

1 pcs Space Open Storage

#### 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
Plastic - Acrylonitrile butadiene styrene (ABS)	ecoinvent 3.6	Database	2019
Wood - Chipboard	Modified ecoinvent 3.6	Database	2019



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

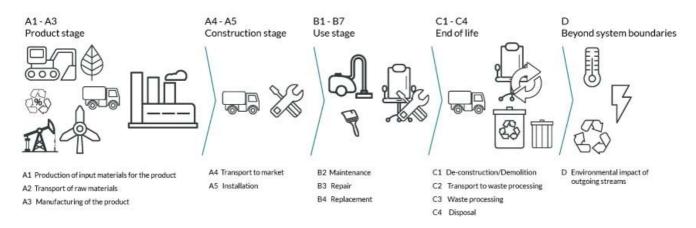
				uction on stage	Use stage				End of I	ife stage		Beyond the system boundaries					
Raw materials	Transport		Manufacturing	Transport	Assembly	Use	Mainten an ce	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De- construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery- Recycling-potential
A1	A2	2	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:

The product is manufactured and assembled at our production site in Kinnarp, from where it is also shipped to the customer.

For the variants and options connected to this EPD, some metal components are manufactured at our production site in Jönköping. Some plastic components are manufactured at our production site in Skillingaryd, where the fabric for the sound absorbent also is being processed. The remainder of the metal and plastic components are purchased as pre-manufactured components.

The flow chart below illustrates the system boundaries of the analysis.



Additional technical information:



## LCA: Scenarios and additional technical information

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

The product is shipped to the consumer in Kinnarps' trucks with blankets and cardboard sheets as packaging material which is returned to the factory after delivery and reused. This method saves 270 kg of packaging material per container and enables 50% more products to be transported in each truck. Kinnarps' trucks have a load efficiency of approximately 87 % and are run on diesel with renewable content. For more information about sustainability at Kinnarps, visit https://www.kinnarps.com/about-kinnarps/sustainability/

The maintenance scenario includes wet-wiping once a week for the whole reference service life.

#### In normal use, no repair or replacement is required during the product's referenced service life.

Transport from production place to user (A4)	Capacity utilisation (incl. return) %	Distance (km)	Fuel/Energy Consumption	Unit	Value (Liter/tonne)
Truck, 16-32 tonnes, HVO, EURO 6 (kgkm)	36,7 %	300	0,043	l/tkm	12,90
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, over 32 tonnes, EURO 6 (km)	53,3 %	85	0,023	l/tkm	1,96
Waste processing (C3)	Unit	Value			
Waste treatment per kg Plastics, Mixture, municipal incineration with fly ash extraction (kg)	kg	0,58			
Waste treatment per kg Wood, incineration with fly ash extraction (kg)	kg	22,02			
Disposal (C4)	Unit	Value			
Landfilling of ashes from incineration of Plastics, Mixture, municipal incineration with fly ash extraction, process per kg ashes and residues - C4 (kg)	kg	0,02			
Landfilling of ashes from incineration of Wood, process per kg ashes and residues (kg)	kg	0,25			
Benefits and loads beyond the system boundaries (D)	Unit	Value			
Substitution of electricity, in Norway (MJ)	MJ	16,20			
Substitution of thermal energy, district heating, in Norway (MJ)	MJ	245,09			



## LCA: Results

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

Environm	Environmental impact											
	Indicator	Unit		A1-A3	A4	A5	B2	B3				
P	GWP-total	kg CO <sub>2</sub> -	eq	-2,19E+01	2,65E-01	0	2,69E-01	0				
P	GWP-fossil	kg CO <sub>2</sub> -	eq	1,48E+01	2,64E-01	0	2,67E-01	0				
P	GWP-biogenic	kg CO <sub>2</sub> -	eq	-3,67E+01	4,47E-04	0	1,68E-03	0				
P	GWP-luluc	kg CO <sub>2</sub> -	eq	5,74E-02	4,12E-04	0	4,35E-04	0				
Ò	ODP	kg CFC11	-eq	1,98E-06	5,45E-08	0	2,37E-08	0				
(E)	AP	mol H+	eq	1,26E-01	1,85E-03	0	1,56E-03	0				
÷	EP-FreshWater	kg P -e	q	5,43E-04	9,69E-06	0	2,14E-05	0				
÷	EP-Marine	kg N -e	q	2,70E-02	4,90E-04	0	2,48E-04	0				
	EP-Terrestial	mol N -	eq	3,50E-01	5,48E-03	0	2,88E-03	0				
	POCP	kg NMVO	C-eq	1,96E+00	2,00E-03	0	9,05E-04	0				
67.0	ADP-minerals&metals <sup>1</sup>	kg Sb-e	q	2,71E-04	3,21E-05	0	7,48E-06	0				
B	ADP-fossil <sup>1</sup>	MJ		3,30E+02	5,59E+00	0	4,57E+00	0				
6	WDP <sup>1</sup>	m <sup>3</sup>		7,55E+03	1,65E+01	0	8,18E+01	0				
	Indicator	Unit	B4	C1	C2	C3	C4	D				
P	GWP-total	kg CO <sub>2</sub> -eq	0	0	1,68E-01	3,87E+01	1,09E-02	-1,47E+00				
P	GWP-fossil	kg CO <sub>2</sub> -eq	0	0	1,68E-01	1,63E+00	1,09E-02	-1,42E+00				
P	GWP-biogenic	kg CO <sub>2</sub> -eq	0	0	7,20E-05	3,70E+01	5,93E-06	-2,93E-03				
P	GWP-luluc	kg CO <sub>2</sub> -eq	0	0	5,12E-05	4,67E-05	1,77E-06	-4,89E-02				
Ò	ODP	kg CFC11 -eq	0	0	4,05E-08	2,54E-08	1,30E-09	-1,04E-01				
Ê	AP	mol H+ -eq	0	0	5,41E-04	3,75E-03	4,06E-05	-1,17E-02				
	EP-FreshWater	kg P -eq	0	0	1,34E-06	4,77E-06	1,46E-07	-1,26E-04				
æ	EP-Marine	kg N -eq	0	0	1,18E-04	1,80E-03	1,29E-05	-3,83E-03				
æ	EP-Terrestial	mol N -eq	0	0	1,32E-03	1,90E-02	1,46E-04	-4,14E-02				
	РОСР	kg NMVOC -eq	0	0	5,19E-04	4,66E-03	4,05E-05	-1,14E-02				
<b>B</b>	ADP-minerals&metals <sup>1</sup>	kg Sb-eq	0	0	2,99E-06	1,24E-06	6,82E-08	-1,41E-05				
Ð	ADP-fossil <sup>1</sup>	MJ	0	0	2,73E+00	2,34E+00	1,08E-01	-2,03E+01				
6	WDP <sup>1</sup>	m <sup>3</sup>	0	0	2,09E+00	6,59E+00	1,00E+00	-2,53E+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 er	nvironmental impac	t indicators						
	Indicator	Unit		A1-A3	A4	A5	B2	B3
	PM	Disease incidence		1,31E-05	6,13E-08	0	1,31E-08	0
<sup>(04)</sup>	IRP <sup>2</sup>	kgBq U235 -eq	kgBq U235 -eq		1,83E-02	0	3,16E-02	0
	ETP-fw <sup>1</sup>	CTUe		3,86E+02	8,16E+00	0	4,95E+00	0
46.* ****	HTP-c <sup>1</sup>	CTUh		4,95E-07	0,00E+00	0	7,39E-10	0
4 <u>8</u>	HTP-nc <sup>1</sup>	CTUh		2,47E-07	1,36E-08	0	1,64E-08	0
٢	SQP <sup>1</sup>	dimensionless		1,10E+03	1,04E+01	0	1,28E+00	0
h	ndicator	Unit	B4	C1	C2	C3	C4	D
	PM	Disease incidence	0	0	1,54E-08	3,73E-08	5,29E-10	-7,09E-07
	IRP <sup>2</sup>	kgBq U235 -eq	0	0	1,19E-02	4,65E-03	5,01E-04	-1,30E-01
	ETP-fw <sup>1</sup>	CTUe	0	0	1,99E+00	7,17E+00	1,81E-01	-1,11E+02
	HTP-c <sup>1</sup>	CTUh	0	0	0,00E+00	8,50E-10	9,00E-12	-2,02E-09
48 E	HTP-nc <sup>1</sup>	CTUh	0	0	1,93E-09	4,16E-08	3,27E-10	-1,06E-07
	SQP <sup>1</sup>	dimensionless	0	0	3,13E+00	3,53E-01	3,41E-01	-1,36E+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
î, D	PERE		MJ	1,64E+02	2,53E-01	0	6,21E-01	0
æ	PERM		MJ		0,00E+00	0	0,00E+00	0
×,	PERT		MJ	3,87E+02	2,53E-01	0	6,21E-01	0
B	PENRE		MJ	3,04E+02	5,59E+00	0	4,57E+00	0
.Ås	PENRM		MJ	-6,78E-01	0,00E+00	0	0,00E+00	0
IA	PENRT		MJ	3,03E+02	5,59E+00	0	4,57E+00	0
	SM		kg	1,13E+01	0,00E+00	0	0,00E+00	0
2	RSF		MJ	7,22E-01	8,22E-03	0	4,98E-02	0
Ū.	NRSF		MJ	4,60E-01	2,83E-02	0	4,91E-02	0
۲	FW		m <sup>3</sup>	2,89E-01	2,29E-03	0	7,85E-01	0
	ndicator	Unit	B4	C1	C2	C3	C4	D
i T	ndicator PERE	Unit MJ	B4 0	C1 0	C2 3,43E-02	C3 8,14E-02	C4 5,74E-03	D -1,26E+02
i I	PERE	MJ	0	0	3,43E-02	8,14E-02	5,74E-03	-1,26E+02
in the second se	PERE	MJ MJ	0	0 0	3,43E-02 0,00E+00	8,14E-02 0,00E+00	5,74E-03 0,00E+00	-1,26E+02 0,00E+00
ूट खि ्रह्न	PERE PERM PERT	MJ MJ	0 0 0	0 0 0	3,43E-02 0,00E+00 3,43E-02	8,14E-02 0,00E+00 8,14E-02	5,74E-03 0,00E+00 5,74E-03	-1,26E+02 0,00E+00 -1,26E+02
्र मु स्रि स्रि	PERE PERM PERT PENRE	MJ MJ MJ	0 0 0 0	0 0 0 0	3,43E-02 0,00E+00 3,43E-02 2,73E+00	8,14E-02 0,00E+00 8,14E-02 2,34E+00	5,74E-03 0,00E+00 5,74E-03 1,08E-01	-1,26E+02 0,00E+00 -1,26E+02 -2,03E+01
	PERE PERM PERT PENRE PENRM	MJ MJ MJ MJ	0 0 0 0 0	0 0 0 0 0	3,43E-02 0,00E+00 3,43E-02 2,73E+00 0,00E+00	8,14E-02 0,00E+00 8,14E-02 2,34E+00 -2,22E+02	5,74E-03 0,00E+00 5,74E-03 1,08E-01 0,00E+00	-1,26E+02 0,00E+00 -1,26E+02 -2,03E+01 0,00E+00
	PERE PERM PERT PENRE PENRM PENRT	MJ MJ MJ MJ MJ		0 0 0 0 0 0	3,43E-02 0,00E+00 3,43E-02 2,73E+00 0,00E+00 2,73E+00	8,14E-02 0,00E+00 8,14E-02 2,34E+00 -2,22E+02 -2,20E+02	5,74E-03 0,00E+00 5,74E-03 1,08E-01 0,00E+00 1,08E-01	-1,26E+02 0,00E+00 -1,26E+02 -2,03E+01 0,00E+00 -2,03E+01
	PERE PERM PERT PENRE PENRM PENRT SM	MJ MJ MJ MJ MJ Kg	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0	3,43E-02 0,00E+00 3,43E-02 2,73E+00 0,00E+00 2,73E+00 0,00E+00	8,14E-02 0,00E+00 8,14E-02 2,34E+00 -2,22E+02 -2,20E+02 0,00E+00	5,74E-03 0,00E+00 5,74E-03 1,08E-01 0,00E+00 1,08E-01 0,00E+00	-1,26E+02 0,00E+00 -1,26E+02 -2,03E+01 0,00E+00 -2,03E+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 resources used as raw materials; PERT = Total use of renewable primary energy resources; Secondary resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary materials; Rest = Use of non renewable primary energy resources; SM = Use of secondary materials; Rest = Use of renewable primary energy resources; SM = Use of non-renewable primary energy resources; SM = Use of secondary materials; Rest = Use of renewable secondary fuels; NRSF = Use of non-renewable primary energy resources; SM = Use of secondary fuels; Rest = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; NRSF = Use of non-renewable primary energy resources; SM = Use of secondary fuels; Rest = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; NRSF = Use of non-renewable primary energy resources; SM = Use of secondary fuels; Rest = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; NRSF =

"Reading example: 9,0 E-03 = 9,0\*10-3 = 0,009" \*INA Indicator Not Assessed



End of life - Waste											
	Indicator			nit	A1-A3	A4	A5	B2	B3		
A	HWD	HWD		kg		7,84E-04	0	8,64E-04	0		
Ū	NHWD	NHWD		kg		8,31E-01	0	5,55E-02	0		
æ	RWD		k	g	1,79E-03	2,24E-05	0	2,68E-05	0		
In	dicator		Unit	B4	C1	C2	C3	C4	D		
A	HWD		kg	0	0	1,49E-04	0,00E+00	1,84E-01	-9,55E-04		
Ū	NHWD		kg	0	0	2,37E-01	0,00E+00	6,99E-02	-4,80E-01		
8	RWD	RWD		0	0	1,86E-05	0,00E+00	5,33E-07	-1,06E-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	U	nit	A1-A3	A4	A5	B2	B3
Ô	CRU	k	kg		0,00E+00	0	0,00E+00	0
\$\$D	MFR	k	g	5,48E-01	0,00E+00	0	0,00E+00	0
ightarrow  ightarrow	MER	k	g	5,80E-01	0,00E+00	0	0,00E+00	0
$\overline{\mathcal{G}}$	EEE	Ν	ſJ	3,76E-01	0,00E+00	0	0,00E+00	0
Da	EET	Ν	۱J	5,68E+00	0,00E+00	0	0,00E+00	0
Indicato	r	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
\$}	MFR	kg	0	0	0,00E+00	0,00E+00	0,00E+00	0,00E+00
DF2	MER	kg	0	0	0,00E+00	2,26E+01	0,00E+00	0,00E+00
₽D	EEE	MJ	0	0	0,00E+00	1,62E+01	0,00E+00	0,00E+00
DB	EET	MJ	0	0	0,00E+00	2,45E+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

<u>Biogenic Carbon</u> Content

Indicator	Unit	At the factory gate							
Biogenic carbon content in product	kg C	1,15E+01							
Biogenic carbon content in accompanying packaging	kg C	0,00E+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 substances given by the REACH Candidate list that are less than 0,1 % by weight.

#### Indoor environment

The product is low-emitting and tested and approved according to ANSI/BIFMA M7.1\_2011, M1 and Indoor Air Comfort Gold.

#### **Additional Environmental Information**

### **Key Environmental Indicators**

Key environmental indicators	Unit	A1-A3	A4	A1-C4	A1-D
GWPtotal	kg CO <sub>2</sub> -eq	-21,89	0,26	17,50	16,03
Total energy consumption	MJ	469,03	5,88	485,58	332,30
Amount of recycled materials	%	43,83			

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		2,65E-01	0	2,69E-01	0
Indicator	Unit	B4	C1	C2	C3	C4	D
GWPIOBC	kg CO <sub>2</sub> -eq	0	0	1,68E-01	1,64E+00	1,30E-02	-1,45E+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 (%)
Space Open Storage - S2P800O - Veneer	23,00	-27,27	462,26	41,22
Space Open Storage - S3P800O - Laminate	31,43	-30,88	646,15	43,97
Space Open Storage - S4P800O - Laminate	40,02	-39,96	818,64	44,08
Space Open Storage - S5P800O - Laminate	48,65	-48,78	994,07	44,11

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 (%)
Space - Wooden plinth, PLBAW, 800x400 mm	2,16	2,41	75,61	32,89
Space - Metal plinth, PLBA, 800x400 mm	1,42	5,85	80,22	15,47
Space - Metal leg frame, LR, 800x400 mm	2,20	6,87	109,47	2,42
Space - Mobile underframe, MOB, 800x400 mm	5,67	18,01	284,12	3,65
Space - Wall hanging kit	0,69	3,05	48,63	1,55
Space - Sound absorbent - Wool blend fabric	1,00	21,96	183,25	13,77



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and norge	Program operator and publisher	Phone: +47 977 22 020
C epd-norge	The Norwegian EPD Foundation	e-mail: post@epd-norge.no
Global program operatør	Post Box 5250 Majorstuen, 0303 Oslo, Norway	web: www.epd-norge.no
<u> </u>	Owner of the declaration:	Phone: +46 515 381 21
Kinnarps_	Kinnarps AB	e-mail: johanna.ljunggren@kinnarps.s
	Industrigatan, 521 88 Kinnarp	web: kinnarps.com
LCA	Author of the Life Cycle Assessment	Phone: +47 916 50 916
	LCA.no AS	e-mail: post@lca.no
	Dokka 6A, 1671 Kråkerøy	web: www.lca.no
$\bigcirc$	Developer of EPD generator	Phone: +47 916 50 916
(LCA)	LCA.no AS	e-mail: post@lca.no
no	Dokka 6A, 1671 Kråkerøy	web: www.lca.no
ECO PLATFORM	ECO Platform	web: www.eco-platform.org
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