

ENVIRONMENTAL PRODUCT DECLARATION

In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

Poem Vanity Unit 60x45 2 Drawers

from

Svedbergs i Dalstorp



Programme: The International EPD® System, <u>www.environdec.com</u>

Programme operator: EPD International AB

EPD registration number: S-P-10749
Publication date: 2023-11-29
Valid until: 2028-11-28

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com





General information

Programme information

Programme:	The International EPD® System					
	EPD International AB					
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	Sweden					
Website:	www.environdec.com					
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Accountabilities for PCR, LCA and independent, third-party verification							
Product Category Rules (PCR)							
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)							
Product category rules (PCR): PCR 2019:14 VERSION 1.2.5 (2022-11-01), PCR 2019:14-c-PCR-021 Furniture (c-PCR to PCR 2019:14)							
PCR review was conducted by: The Technical Committee of the International EPD® System. See www.environdec.com/TC for a list of members. Review chair: Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat www.environdec.com/contact .							
Life Cycle Assessment (LCA)							
LCA accountability: Oskar Frisk & Hans Svensson, Svedbergs i Dalstorp AB							
Third-party verification							
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:							
⊠ EPD verification by individual verifier							
Third party verifier: Daniel Böckin, Miljögiraff AB, daniel@miljogiraff.se							
Approved by: The International EPD® System							
Procedure for follow-up of data during EPD validity involves third party verifier:							
□ Yes ⊠ No							

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but from different programmes may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.



Company information

Owner of the EPD: Svedbergs i Dalstorp AB

Contact: Hans Svensson

E-mail: hans.svensson@svedbergs.se

<u>Description of the organisation:</u> Svedbergs is a publicly traded company that was founded in 1920 and has since 1962 produced quality products for bathrooms. Today it's one of the leading brands in the Nordic countries for bathroom furniture. The Svedbergs concept entails the whole bathroom, supplying for example furniture, showers, WC, bathtubs and more. The different ranges of products are sold to both professional and private customers. More than 75% of the production takes place in Dalstorp, Sweden, which provides benefits when it comes to flexibility, logistics, lead times and sustainability factors.

Product-related or management system-related certifications:

ISO-14001 ISO-9001

Name and location of production site:

Svedbergs i Dalstorp AB Verkstadsvägen 1 514 63 Dalstorp



Product information

<u>Product name:</u> Poem Vanity Unit 60x45 2 Drawers



The picture shows the product Poem Vanity Unit 60x45 White 2 Drawers.

Product description:

Poem is a wide and versatile collection that suits both small and large bathrooms. Widths range from 50-160 cm depending on depth (35 or 45 cm). The products are delivered with one, two or four drawers depending on depth and width. The drawers have inserts made of wood and sheet metal that provides both an authentic feel and a smart way to store your bathroom essentials. Poem is available in the colors: white, sand, pure oak & brown/black ash. Poem also has a variety of options when choosing fronts, from flat to more intricate designs such as frames and integrated grips.

UN CPC code: 38140 (Other furniture n.e.c)

Geographical scope: Nordic countries

<u>Products included:</u> This is a representative EPD for multiple products, the products included are listed after the results tables. Since the LCA is based on generic pre-verified materials all the included products would be modelled the same way as the representative product. Therefor it's safe to assume that the results would not differ.



LCA information

Functional unit / declared unit: 1 piece of product (23,2 kg)

The conversion factor needed to recalculate the results to per kg is therefore (1/23,2).

Expected service life: 20-40 years (depending on the usage of the product).

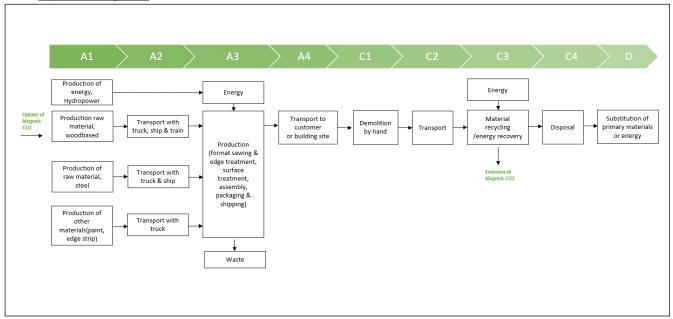
Time representativeness: 2022

<u>Database(s)</u> and <u>LCA</u> software used: Sphera database and ecoinvent. IVLs EPD Generator for TMF Kitchen & Bath version 1.0.0.197. Verification of the tool performed by Marcus Wendin, Miljögiraff AB.

<u>Description of system boundaries:</u> The EPD is a so-called Cradle to gate with options, modules C1–C4, module D and with optional modules (A1–A3 + C + D and additional modules). The additional modules are A4. Excluded life-cycle stages are A5, B1-B7. This is referred to a Type B EPD in the PCR.

The polluter pays principle is applied according to PCR. For waste management, this means that emissions that occur at material recycling facilities must be allocated to the next life cycle, if the next life cycle pays for the residual material. However, transport to the recycling facility is included. The life cycle begins with the extraction of raw materials used for the products, which defines the boundary with nature.

System diagram:



- Module A1: Production of raw materials.
- Module A2: Transportation of raw materials to Svedbergs factory.
- Module A3: Manufacturing.
- Module A4: Transport of product to customer or building site.

- Module C1: Demolition.
- Module C2: Transport to waste processing.
- Module C3: Waste processing.
- Module C4: Disposal.
- Module D: Benefits and loads beyond the system boundary.

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<u>Allocation:</u> Incoming energy, water and waste production in-house is allocated equally among all joint co-products through mass allocation.

<u>Transportation:</u> The transport included in this study is the transport of raw materials, products to customers and waste from the production site. The transport is mostly carried out through heavy trucks.

<u>Energy utilities:</u> Both electricity and heat are used at the factory. Electricity is based on hydropower power. The heat applied is mainly from district heating.

<u>Secondary energy:</u> No secondary energy has been used.

<u>Direct emissions from production:</u> Direct emissions occur from the burning of fuels in the factory. As well as VOC emissions from painting.

<u>Waste:</u> Waste is generated from wastage in production as well as packaging from various products.

<u>Scenario for module A4:</u> The product is transported 444 km to customer by a 40-tonne truck.

<u>Scenario for module C1:</u> The product is assumed to be dismantled by hand, and therefore no energy is required for this step.

Scenario for module C2: Transport to waste management or landfill is carried out through a 2-tonne truck for 35 km. The low weight of the truck is based on the assumption that kitchen furniture is often brought to waste management facilities by households or craftsmen.

Scenario for module C3: Wooden parts are assumed to be chipped, incinerated and the energy recovered. Metal parts are assumed to be recycled.

<u>Scenario for module C4:</u> The remaining materials are assumed to be send for disposal on a landfill.

<u>Scenario for module D:</u> Wood: As applied in C3. All heat generated replaces district heat.

<u>Content declaration:</u> Specific content declaration hidden for confidentiality reasons.

Packaging: The packaging per piece of products is calculated based on yearly consumption of pallets and cardboard. The amounts of packaging used per piece has a low to insignificant effect on the product's environmental performance. Therefore, it's not included.



Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Pro	duct st	age	Constru				Us	se sta	ge			Enc	End of life stage			Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling- potential
Module	A 1	A2	А3	A4	A5	B1	В2	В3	В4	В5	В6	В7	C1	C2	СЗ	C4	D
Modules declared	Х	Х	Х	Х	MND	MND	MND	MND	MND	MND	MND	MND	Х	Х	Х	Х	Х
Geography	EU	EU	SE	Nordic countries (NC)	-	-	-	-	-	-	-	-	NC	NC	NC	NC	NC
Specific data used		6,03%		-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products				-		-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites				-		-	-	-	-	-	-	-	-	-	-	-	-



Content declaration

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Chipboard	15-16	0%	41% & 0,5 kg C/kg*
Steel	7-8	12,7%*	Non-biogenic material
ABS	0,1-0,5	0%	Non-biogenic material
Paint	0,01-0,05	0%	Non-biogenic material
Powder coating	0,01-0,05	0%	Non-biogenic material
Packaging materials	Weight, kg	Weight-% (versus the product)	Weight biogenic carbon, kg C/kg
*Refer to LCA-information			

^{*}Worldsteel average.

^{*}General carbon content for wood

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
None			





Environmental performance

Potential environmental impact – mandatory indicators according to EN15804

		Results per fur	nctional or c	leclared uni	t				
INDIC	ATOR	UNIT	A1-A3	A4	C1	C2	C3	C4	D
	Fossil	kg CO2 eq.	3,96E+01	6,60E-01	0,00E+00	1,30E-01	5,15E-02	3,99E-03	-6,57E+00
	Biogenic	kg CO2 eq.	-2,81E+01	2,05E-03	0,00E+00	4,05E-04	2,81E+01	-9,94E-05	0,00E+00
Global warming potential (GWP)	Land use and land use change	kg CO ₂ eq.	3,70E-02	3,69E-03	0,00E+00	7,26E-04	2,88E-04	1,31E-05	-1,13E-04
	TOTAL	kg CO ₂ eq.	1,16E+01	6,65E-01	0,00E+00	1,31E-01	2,81E+01	3,90E-03	-6,57E+00
Depletion potential of the stratosp	oheric ozone layer (ODP)	kg CFC 11 eq.	9,22E-07	1,49E-08	0,00E+00	2,93E-09	1,16E-09	1,16E-11	-4,10E-08
Acidification potential (AP)		mol H+ eq.	1,59E-01	7,42E-03	0,00E+00	1,46E-03	5,79E-04	3,06E-05	-1,39E-02
	Freshwater	kg P eq.	2,70E-03	3,41E-05	0,00E+00	6,72E-06	2,66E-06	3,25E-08	-1,26E-05
Eutrophication potential (EP)	Marine	kg N eq.	4,17E-02	4,00E-03	0,00E+00	7,88E-04	3,12E-04	9,56E-06	-2,10E-04
	Terrestrial	Mole of N eq.	4,22E-01	3,80E-02	0,00E+00	7,49E-03	2,96E-03	1,00E-04	2,67E-03
Formation potential of tropospher	ric ozone (POCP)	kg NMVOC eq.	1,25E-01	5,19E-03	0,00E+00	1,02E-03	4,05E-04	2,35E-05	-1,36E-03
Abjectic depletion notantial	Minerals and metals**	kg Sb eq.	1,16E-04	3,55E-07	0,00E+00	7,00E-08	2,77E-08	6,07E-10	-4,12E-07
Abiotic depletion potential	Fossil resources**	MJ	5,77E+02	1,00E+01	0,00E+00	1,98E+00	7,84E-01	5,41E-02	-6,01E+01
Water scarcity potential (WDP)**		m³	2,79E+01	1,18E+01	0,00E+00	2,33E+00	9,23E-01	9,61E-03	-1,19E+02

^{**} Disclaimer: The results of this environmental impact indicator should be used with caution as the uncertainty in these results is large or because there is limited experience with the indicator. "E" means exponent (10x). For example, 3.5 E-02 means 3.5*10-2 and can be read as 0.035.





Potential environmental impact – additional mandatory and voluntary indicators

	Res	ults per function	onal or dec	lared unit					
	UNIT	A1-A3	A 4	C1	C2	C3	C4	D	
Potential incidence of o (PM)	Disease incidence	2,36E-06	3,98E-08	0,00E+00	7,85E-09	3,11E-09	3,39E-10	5,33E-04	
Potential human expos	ure efficiency relative to U235 (IRP)*	kBq U235 e	1,91E+00	2,26E-02	0,00E+00	4,46E-03	1,77E-03	6,87E-05	-9,60E-01
Potential comparative t	oxic unit for ecosystems (ETP-fw)**	CTUe	3,45E+02	1,76E+01	0,00E+00	3,46E+00	1,37E+00	3,99E-02	-2,11E+01
Potential comparative	Cancer**	CTUh	6,29E-07	3,51E-10	0,00E+00	6,92E-11	2,74E-11	4,16E-12	-4,20E-10
toxic unit for humans	Non cancer**	CTUh	4,94E-07	2,14E-08	0,00E+00	4,22E-09	1,67E-09	4,45E-10	-7,65E-08
Potential soil quality ind	dex (SQP)**	Dimensionless	8,40E+02	1,29E+01	0,00E+00	2,53E+00	1,00E+00	1,94E-02	-1,22E+01

^{*}Disclaimer: 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.

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^{**} Disclaimer: The results of this environmental impact indicator should be used with caution as the uncertainty in these results is large or because there is limited experience with the indicator



Use of resources

	Results per functional or declared unit									
INDICATOR			A1-A3	A4	C1	C2	C3	C4	D	
Drimory operay recourses	Use as energy carrier	MJ	1,76E+02	3,45E+00	0,00E+00	6,80E-01	2,69E-01	8,91E-03	2,31E+02	
Primary energy resources – Renewable	Used as raw materials	MJ	2,63E+02	0,00E+00	0,00E+00	0,00E+00	-2,63E+02	0,00E+00	0,00E+00	
Reflewable	TOTAL	MJ	4,39E+02	3,45E+00	0,00E+00	6,80E-01	-2,63E+02	8,91E-03	2,31E+02	
Drimon, opera, recourses	Use as energy carrier	MJ	5,77E+02	1,01E+01	0,00E+00	1,98E+00	7,85E-01	5,41E-02	-4,23E+01	
Primary energy resources – Non-renewable	Used as raw materials	MJ	1,70E+02	0,00E+00	0,00E+00	0,00E+00	-1,70E+02	0,00E+00	0,00E+00	
Non-renewable	TOTAL	MJ	7,47E+02	1,01E+01	0,00E+00	1,98E+00	-1,69E+02	5,41E-02	-4,23E+01	
Secondary material		kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	
Renewable secondary fuels		MJ	2,57E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,69E+02	
Non-renewable secondary fuels		MJ	6,94E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-4,56E+01	
Net use of fresh water		m ³	7,08E-01	2,76E-01	0,00E+00	5,43E-02	2,15E-02	2,27E-04	0,00E+00	





Waste production and output flows

Waste production

Results per functional or declared unit									
PARAMETER	UNIT	A1-A3	A4	C1	C2	C3	C4	D	
Hazardous waste disposed	kg	7,06E-04	4,24E-11	0,00E+00	8,35E-12	3,31E-12	4,93E-12	-1,13E-09	
Non-hazardous waste disposed	kg	8,41E-01	1,27E-03	0,00E+00	2,50E-04	9,90E-05	2,30E-01	-2,28E-02	
Radioactive waste disposed	kg	7,46E-03	1,09E-05	0,00E+00	2,15E-06	8,51E-07	4,94E-07	-7,66E-03	

Output flows

	Results per functional or declared unit										
INDICATOR	UNIT	A1-A3	A4	C1	C2	C3	C4	D			
Components for reuse	kg	0,00E+00									
Material for recycling	kg	8,59E-04	0,00E+00	0,00E+00	0,00E+00	7,90E+00	0,00E+00	0,00E+00			
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,51E+01	0,00E+00	0,00E+00			
Exported energy, electricity	MJ	0,00E+00									
Exported energy, thermal	MJ	0,00E+00									

Other environmental performance indicators

Results per functional or declared unit									
INDICATOR UNIT A1-A3 A4 C1 C2 C3 C4 D									
GWP-IOBC/GHG	kg CO2 eq	3,96E+01	6,63E-01	0,00E+00	1,31E-01	5,18E-02	4,00E-03	-6,57E+00	



Articles included

Item number	Product description	GTIN
3456112	Poem Vanity Unit 60x45 White 2 Drawers	7323100343826
3456112-COL	Poem Vanity Unit 60x45 COL 2 Drawers	7323100365323
3456122	Poem Vanity Unit 60x45 Sand 2 Drawers	7323100344427



References

- General Programme Instructions of the International EPD® System. Version 4.0.
- EN 15804:2012+A2:2019. Sustainability of construction works Environmental product declarations Core rules for the product category of construction products. CEN European Committee for Standardisation (2019).
- EN 1685:2014 "Round and sawn timber Environmental Product Declarations Product category rules for wood and wood-based products for use in construction"
- LCA report for EPD tool for Kitchen & Bath for Svedbergs Poem 60x45
- Liljenroth, A., Al-Ayish, N. & Hallberg, L (2022). Generic LCA methodology report for Kitchen & Bath EPD tool for TMF.
- PCR 2019:14. Construction products. version 1.2.5 (2022-11-01)
- PCR 2019:14-c-PCR-021 Furniture (c-PCR to PCR 2019:14). EPD International