



AJ Products.com



Environmental Product Declaration

In accordance with ISO 14025 and Product Category Rules for Furniture

Table BORÅS HPL 1200x600x900mm

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	S-P-08988
Publication date:	2023-05-22
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General information

Programme information

Programme: The International EPD® System
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Accountabilities for PCR, LCA and independent, third-party verification

Core PCRs:	EN 15804:2012+A2:2019+AC:202 (CEN, 2019) and PCR 2019:14 Construction Products, version 1.2.5 (EPD International, 2022)
c-PCR:	PCR 2019:14-c-PCR-021 Furniture, version 2.0 (EPD Norge, 2022)
PCR review was conducted by:	Diogo Aparecido Lopes Silva, Universidade Federal de São Carlos.
LCA accountability:	Sofia Lindroth, Miljögiraff AB
Third-party verification by individual verifier:	Independent third-party verification of the declaration and data, according to ISO 14025:2006 via: Hudai Kara, PhD, Metsims Sustainability Consulting Approved by: The International EPD® System.
	Procedure for follow-up of data during EPD validity involves third party verifier: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

The EPD owner has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but different programs may not be comparable.



Company information

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Description of the organisation

AJ Products is a Swedish company within the business of manufacturing and retail of products and solutions for workspaces such as offices, schools, industries, and warehouses. We started our business 1975 with the aim to grow into a leading player in each product category.

We consider ourselves to be professionals in designing work environments where people feel good. With a focus on innovation, sustainability and self-designed product series, we create smart solutions for the workplace of today.

The company operate in 19 European countries, with about 1100 employees and three own factories. AJ Products contributes annually to improving the working environment at 330,000 workplaces around Europe. Our range consists of more than 14 500 products for offices, schools, warehouses and industries. Our aim is to ensure that all our products offer high quality with respect to functionality and safety, have a long lifespan and are not harmful to people or the environment. As we continue to grow and improve our environmental work, creating sustainable and high-quality products remains a central aspect.

Management system-related certifications: AJ Products has been certified according to ISO 14001 and ISO 9001 since 2011.

Product information

The Borås HPL desk is a hard-wearing table which is designed and built to withstand the demanding conditions of preschools and schools. It is made of two components, a powder-coated steel base with legs made of sturdy round tubing and a high-pressure laminate covered tabletop.

The Tabletop and legs are available in several colours, which enables the customer to combine and design the table based on the customer's wishes.

The assumed usage is 40 hours per week for 15 years or until it no longer meets the needs of the user. When the table no longer serves its purpose, AJ Products recommend its owner to resell the product or disassemble the wood and metal to enable material recycling. Furthermore, AJ Products provides a warranty for its products, covering defects in materials and workmanship for a period of 7 years but it is expected that the actual service life will be much longer.



LCA information

Declared Unit	<p>The declared unit is 1 unit of Borås desk 1200x600x900 mm, with RSL 15 years, designed for demanding conditions such as preschools and schools.</p> <p>See product variations under Product Information.</p>
Product group classification	UN CPC 381
Goal and Scope	The result will be used to understand where the environmental burden for the products occurs during the life cycle and aims to lay a road map for development to decrease this burden. The result will be communicated by the International EPD system.
Manufacturing Site	Halmstad, Sweden.
Geographical Area	Model for raw materials, product components and transport of these are based on Europe. Model for core production, downstream transports and waste is based on Sweden.
Compliant with	<p>This EPD follows the “Book-keeping” LCA approach which is defined as attributional LCA in the ISO 14040 standard.</p> <p>In accordance with GPI 4.0 (EPD International, 2021), ISO 14025 (ISO, 2006a), ISO 14040 – ISO 140 44 (ISO, 2006b, 2006c).</p> <p>This EPD follows the product category rules NPCR – PCR – Part B for Furniture, version 2, valid to 18.10.2023 (EPD Norge, 2022).</p>
Cut-Off Rules	<p>The procedure below is followed for the exclusion of inputs and outputs according to the EN 15804:2012+ A2:2019 standard:</p> <p>Cut-offs in this study has been:</p> <ul style="list-style-type: none">- Raw material and disposal of wood pallets used in packaging the product.- Energy for installation of the product- Usage of product part from cleaning the product.- Energy for dismantling of the product.
Background data	<p>The data quality is considered good. All site-specific data for raw materials, auxiliary materials as well as energy and emissions in the manufacturing process is from 2021 and have been represented with ecoinvent datasets. All other relevant environmental aspects have been represented by specific data from suppliers and selected generic data and generic data from ecoinvent.</p> <p>ecoinvent is the world's biggest LCI (Life cycle inventory) data library and the latest and most updated version was used. ecoinvent contains data for the specific geographical regions relevant for this study. The background data from ecoinvent 3.8 are from 2016-2023.</p>
Electricity data	AJ Products buys certified renewable electricity. Electricity consumption in the A3 module comes from renewable sources from solar-, wind-, and hydropower.
Allocations	<p>Polluter Pays / Allocation by Classification</p> <p>Allocation in specific data was done for energy consumption, general waste production and general packaging of materials at both suppliers and AJ Product's facility in Halmstad. In general, the yearly consumption of for example energy was mass allocated with the yearly total production.</p>
Impact Assessment methods	Potential environmental impacts and resource use values are calculated according to the GPI and PCR using the SimaPro 9.3 software.
Based on LCA Report	1066 Life Cycle Assessment of table BORÅS and SONITUS by AJ Products (Lindroth, 2023)
LCA Practitioner	Sofia Lindroth, Miljögiraff AB
Software	SimaPro 9.4



System boundary

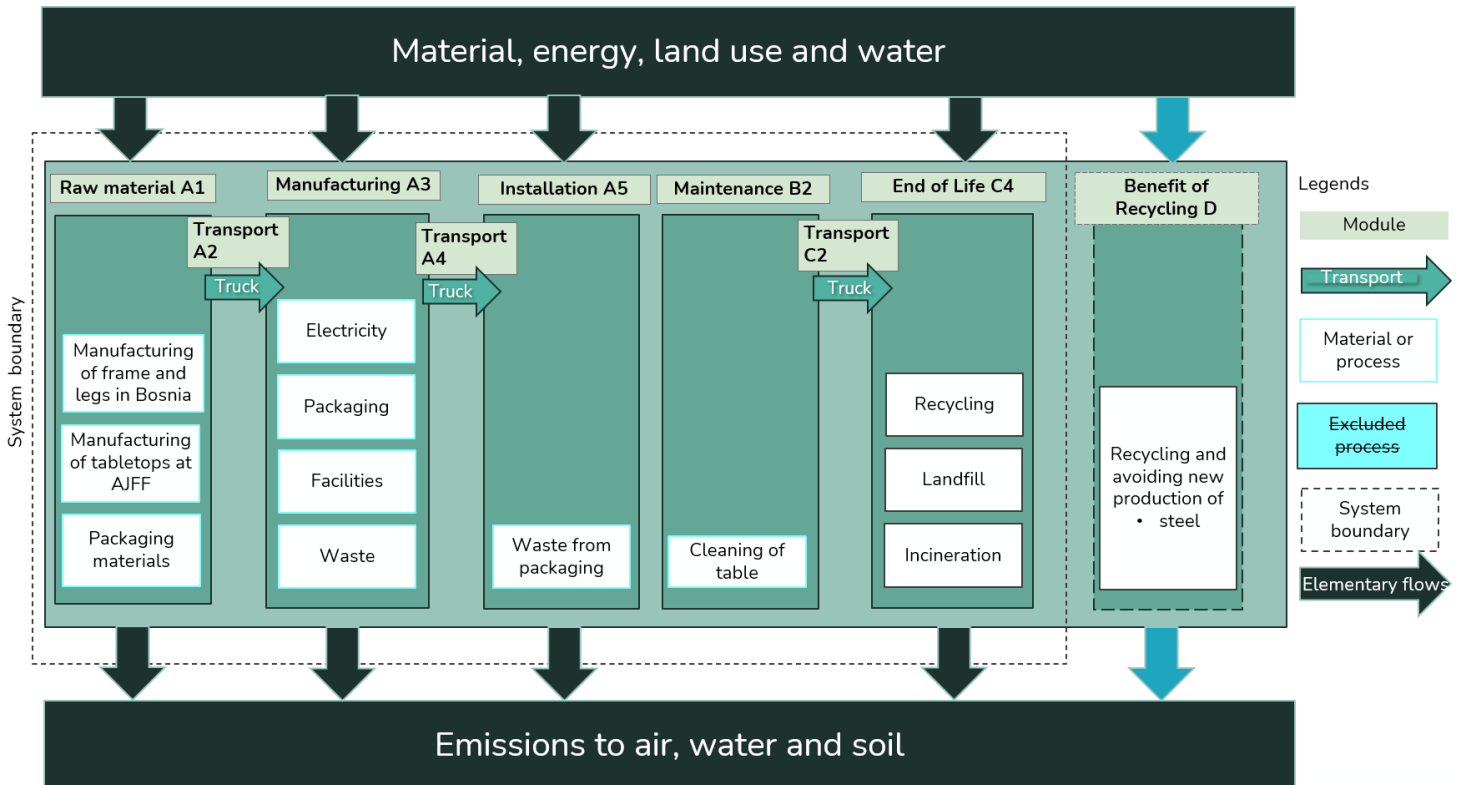
The system boundary for this EPD is cradle to gate with options (A1-A3), modules C1–C4, module D and additional modules (A4 and/or A5 and/or B1-B7). More specifically, modules A1-A3, A4, A5, B2, C2, C4 and D are considered. The PCR for Construction Products requires that benefits and loads outside of the system boundary is calculated. However, as it is outside of the system boundary, it is reported separately and shall not be summed up with the rest of the results.

	Product stage			Construction process stage		Use stage							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	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	X	X	ND	X	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	EUR	EUR	SWE	SWE	SWE		SWE						SWE	SWE	SWE	SWE	SWE
Specific data used	>90%					-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	Conversion factors for indicator GWP total according to EN 15804					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	No variation.					-	-	-	-	-	-	-	-	-	-	-	-

Modules declared: (X = included, ND = not declared).

System diagram

See the system diagram below for information about included modules.



More information:

AJ Product's supply chain that is assessed extends from their suppliers of packaging materials, consumables, but above all from the supplier of the legs and frame in Bosnia & Herzegovina and tabletop in Poland, to AJ Products's operations in Halmstad for packaging and distribution. Hence, legs and frame production in Bosnia & Herzegovina and tabletop production in Poland falls under A1 Raw material. In this study, all suppliers have been contacted to obtain specific information about their products.

Disclaimers about results for the environmental impact.

1. Note that the LCIA results are relative expressions, which means that they do not predict impacts on category endpoints or the exceeding of thresholds, safety margins or risk.
2. "Ionising Radiation" – 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.
3. Abiotic resources (elements and fossil fuels) 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.



Content information

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Wood based panels	7,55		83-88%
High pressure laminate	1,9		60%
Edge tape	0,19		
Glue	0,16		
Steel	10,92	80%	
TOTAL	20,72		
Packaging materials	Weight, kg	Weight-% (versus the product)	Weight biogenic carbon, kg C/kg
Cardboard	2,04		100%
Plastic	0,24		
Steel	0,00083		
Wood pallets	0,91		100%
TOTAL	3,19		

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
No SVHC over 0,1%			



Results of the environmental performance indicators

Mandatory impact category indicators according to EN 15804

Results per one unit of Borås desk 1200x600x900mm								
Indicator	Unit	A1-A3	A4	A5	B2	C2	C3	D
GWP-fossil	kg CO ₂ eq.	4,62E+01	1,87E+00	1,03E+00	1,32E+00	1,69E-01	5,57E+00	-4,76E+00
GWP-biogenic	kg CO ₂ eq.	-7,79E+00	1,61E-03	8,03E-01	-3,01E-01	1,46E-04	7,58E+00	-3,08E-02
GWP-luluc	kg CO ₂ eq.	4,58E-02	7,47E-04	2,76E-04	9,16E-02	6,75E-05	1,37E-04	-7,75E-02
GWP-total	kg CO ₂ eq.	3,85E+01	1,87E+00	1,83E+00	1,11E+00	1,69E-01	1,31E+01	-4,87E+00
ODP	kg CFC 11 eq.	5,25E-06	4,33E-07	1,56E-07	1,79E-07	3,91E-08	4,66E-08	-2,08E-07
AP	mol H ⁺ eq.	2,26E-01	5,31E-03	2,15E-03	8,97E-03	4,79E-04	3,76E-03	-1,86E-02
EP-freshwater	kg P eq.	1,53E-02	1,22E-04	4,78E-05	4,31E-04	1,11E-05	7,76E-05	-2,29E-03
EP-marine	kg N eq.	5,13E-02	1,08E-03	5,25E-04	2,68E-03	9,74E-05	1,91E-03	-4,75E-03
EP-terrestrial	mol N eq.	5,13E-01	1,18E-02	5,53E-03	1,94E-02	1,06E-03	1,90E-02	-4,82E-02
POCP	kg NMVOC eq.	1,75E-01	4,52E-03	1,94E-03	4,95E-03	4,08E-04	4,90E-03	-2,08E-02
ADP-minerals&metals*	kg Sb eq.	2,76E-04	6,62E-06	2,44E-06	2,20E-05	5,98E-07	1,18E-06	-2,41E-05
ADP-fossil*	MJ	7,79E+02	2,83E+01	9,99E+00	2,06E+01	2,56E+00	1,82E+00	-1,84E+02
WDP*	m ³	1,99E+01	8,62E-02	4,07E-02	1,48E+00	7,79E-03	8,89E-02	-2,64E+00
Acronyms	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							

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.



Additional mandatory and voluntary impact category indicators

Results per one unit of Borås desk 1200x600x900mm								
Indicator	Unit	A1-A3	A4	A5	B2	C2	C3	D
GWP-GHG ¹	kg CO ₂ eq.	45,36	1,85	1,02	1,30	0,17	5,56	-4,67

Resource use indicators

Results per one unit of Borås desk 1200x600x900mm								
Indicator	Unit	A1-A3	A4	A5	B2	C2	C3	D
PERE	MJ	176,53	0,40	0,16	7,23	0,04	0,14	-61,84
PERM	MJ	233,02	0,00	0,00	0,00	0,00	0,00	0,00
PERT	MJ	409,55	0,40	0,16	7,23	0,04	0,14	-61,84
PENRE	MJ	837,66	30,07	10,61	22,21	2,72	1,95	-186,33
PENRM	MJ	64,90	0,00	0,00	0,00	0,00	0,00	0,00
PENRT	MJ	902,56	30,07	10,61	22,21	2,72	1,95	-186,33
SM	kg	9,51	0,00	0,00	0,00	0,00	0,00	0,00
RSF	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00
NRSF	MJ	0,00	0,00	0,00	0,00	0,00	0,00	0,00
FW	m ³	0,34	0,005	0,002	0,063	0,000	0,011	-0,051
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water							

¹ This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.



Waste indicators

Results per one unit of Borås desk 1200x600x900mm								
Indicator	Unit	A1-A3	A4	A5	B2	C2	C3	D
Hazardous waste disposed	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Non-hazardous waste disposed	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Radioactive waste disposed	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Output flow indicators

Results per one unit of Borås desk 1200x600x900mm								
Indicator	Unit	A1-A3	A4	A5	B2	C2	C3	D
Components for re-use	kg	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Material for recycling	kg	0,97	0,00	1,66	0,00	0,00	10,92	0,00
Materials for energy recovery	kg	0,78	0,00	0,62	0,00	0,00	8,66	0,00
Exported energy, electricity	MJ	13,58	0,00	5,82	0,00	0,00	89,16	0,00
Exported energy, thermal	MJ	13,58	0,00	5,82	0,00	0,00	89,16	00,00

Information on biogenic carbon content

Results per one unit of Borås desk 1200x600x900mm		
BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	3,27
Biogenic carbon content in packaging	kg C	1,32

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO₂.



Additional information

Editorial changes

2023-05-22 Version 1

2023-10-18 Version 1.1

Editorial change: Misspelling of length sizes of metal legs in conversion factor table page 11, now corrected to right size from 700mm to 720mm.

Product variations and conversion factors for module A1-A3

This EPD present results for Borås desk 1200x600x900 mm. The Borås desk comes in many variations, were both tabletop size and height of the table can vary. Results for modules A1-A3 for variations of the product can be obtained with conversion factors shown in the table below. By multiplying the conversion factor with the result in this EPD, results for stated modules can be obtained for variations of the product.

Area (mm):	Height (mm):	Article number:
700x600	720	34607202
	760	34604609
	900	34609202
1200x600	720	34617202
	760	34614202
	900	34619202
1800x800	720	34687202
	760	34684202
	900	34689202

Conversion factors for mandatory impact category indicators according to EN 15804

Results for module A1-A3 per one unit of Borås desk in selected size

Indicator	Unit	700x600			1200x600			1800x800		
		720	760	900	720	760	900	720	760	900
GWP-fossil	kg CO ₂ eq.	0,67	0,68	0,73	0,95	0,95	1,00	1,53	1,53	1,58
GWP-biogenic	kg CO ₂ eq.	0,58	0,58	0,58	1,00	1,00	1,00	1,94	1,94	1,93
GWP-luluc	kg CO ₂ eq.	0,66	0,66	0,68	0,98	0,98	1,00	1,81	1,81	1,83
GWP-total	kg CO ₂ eq.	0,69	0,70	0,75	0,94	0,94	1,00	1,45	1,45	1,51
ODP	kg CFC 11 eq.	0,67	0,68	0,73	0,95	0,95	1,00	1,53	1,53	1,58
AP	mol H ⁺ eq.	0,68	0,69	0,74	0,94	0,95	1,00	1,49	1,49	1,54
EP-freshwater	kg P eq.	0,69	0,69	0,75	0,94	0,94	1,00	1,48	1,48	1,54
EP-marine	kg N eq.	0,67	0,67	0,71	0,96	0,96	1,00	1,61	1,61	1,65
EP-terrestrial	mol N eq.	0,67	0,67	0,71	0,95	0,96	1,00	1,58	1,58	1,62
POCP	kg NMVOC eq.	0,67	0,67	0,72	0,95	0,95	1,00	1,55	1,56	1,60



ADP-minerals&metals*	kg Sb eq.	0,64	0,64	0,67	0,97	0,97	1,00	1,66	1,66	1,69
ADP-fossil*	MJ	0,66	0,67	0,71	0,95	0,96	1,00	1,57	1,57	1,61
WDP*	m ³	0,64	0,64	0,68	0,96	0,97	1,00	1,65	1,65	1,68

** Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.*



References

- CEN. (2019). *EN 15804:2012+A2:2019, Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products.*
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- ISO. (2006c). *ISO 14044:2006, Environmental management — Life cycle assessment — Requirements and guidelines (pp. 1–54).*
- Lindroth, S. (2023). *1066 Life Cycle Assessment of table BORÅS and SONITUS by AJ Products.*

