

ENVIRONMENTAL PRODUCT DECLARATION

in accordance with ISO 14025, ISO 21930 and EN 15804

Owner of the declaration:	JSC Svenheim
Program operator:	The Norwegian EPD Foundation
Publisher:	The Norwegian EPD Foundation
Declaration number:	NEPD-3395-2015-EN
Registration number:	NEPD-3395-2015-EN
ECO Platform reference number:	-
Issue date:	15.03.2022
Valid to:	15.03.2027

Titan deep cabinet 3A4 W800 birch veneer body and front

JSC Svenheim

Svenheim 
 MØBELINDUSTRI AS

www.epd-norge.no



General information

<p>Product:</p> <p>Titan deep cabinet 3A4 W800 birch veneer body and front</p>	<p>Owner of the declaration:</p> <p>JSC Svenheim Contact person: Karolina Klimaite Phone: +370 657 52044 e-mail: info@svenheim.lt</p>
<p>Program operator:</p> <p>The Norwegian EPD Foundation Pb. 5250 Majorstuen, 0303 Oslo Phone: +47 23 08 80 00 e-mail: post@epd-norge.no</p>	<p>Manufacturer:</p> <p>JSC Svenheim</p>
<p>Declaration number:</p> <p>NEPD-3395-2015-EN</p>	<p>Place of production:</p> <p>JSC Svenheim Naujoji str.132 LT-62175 Alytus Lithuania</p>
<p>ECO Platform reference number:</p>	<p>Management system:</p> <p>ISO 14001, Certificate No. 81858-2010-AE-LUT-FINAS ISO 9001, Certificate No. 81860-2010-AQ-LTU-FINAS Accredited unit: DNV Certification OY/AB, Finland</p>
<p>This declaration is based on Product Category Rules:</p> <p>CEN Standard EN 15804:2012+A1:2013 serves as core PCR NPCR 026:2018 Part B for furniture</p>	<p>Organisation no:</p> <p>LT100004040014</p>
<p>Statement of liability:</p> <p>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.</p>	<p>Issue date:</p> <p>15.03.2022</p>
<p>Declared unit:</p> <p>1 Pcs Titan deep cabinet 3A4 W800 birch veneer body and front</p>	<p>Valid to:</p> <p>15.03.2027</p>
<p>Declared unit with option:</p> <p>A1,A2,A3,A4,A5,C2,C3</p>	<p>Year of study:</p> <p>2021</p>
<p>Functional unit:</p>	<p>Comparability:</p> <p>EPDs from programmes other than the Norwegian EPD Foundation may not be comparable</p>
<p>General information on verification of EPD from EPD tools:</p> <p>Independent verification of data, other environmental information and the declaration according to ISO 14025:2010, § 8.1.3 and § 8.1.4. Individual third party verification of each EPD is not required when the EPD tool is i) integrated into the company's environmental management system, ii) the procedures for use of the EPD tool are approved by EPDNorway, and iii) the process is reviewed annually. See Appendix G of EPD-Norway's General Programme Instructions for further information on EPD tools.</p>	<p>Development and verification of EPD:</p> <p>The declaration has been developed and verified using EPD tool lca.tools ver EPD2020.11, developed by LCA.no AS. The EPD tool is integrated into the company's environmental management system, and has been approved by EPD-Norway</p>
<p>Verification of EPD tool:</p> <p>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.</p>	<p>Developer of EPD:</p> <p>Linas Vosylius</p> <p>Reviewer of company-specific input data and EPD:</p> <p>Jan Petter Nilsen</p>
<p>Erik Svanes, Norsus AS (no signature required)</p>	<p>Approved:</p> <p style="text-align: center;">Sign</p> <p style="text-align: center;"></p> <p style="text-align: center;">Håkon Hauan, CEO EPD-Norge</p>

Key environmental indicators	Unit	Cradle to gate A1 - A3
Global warming	kg CO2 eqv	65,18
Total energy use	MJ	2170,37
Amount of recycled materials	%	2,92

Product

Market:

Europe

Product description:

Office furniture, Titan cabinet 3A4 with 2 doors and 3 drawers

Product specification

Titan cabinet with 2 doors and 3 drawers is available in beech, birch, oak and ash veneer, white, light or dark grey, beech, birch or ash MFC body and front. Front available painted in 7 different colours. Socket can be wooden or standard round or square legs, or steel frame.

Technical data:

Total weight 49,16kg with packaging

Reference service life, product

15 years

Reference service life, building

Materials	kg	%	Recycled share in material (kg)	Recycled share in material (%)
Printed paper	0,14	0,28	0,00	0,00
Metal - Steel	1,00	1,56	0,20	20,00
Wood - Medium Density Fibreboard (MDF)	5,86	11,89	0,00	0,00
Plastic - Acrylonitrile butadiene styrene (ABS)	0,85	1,33	0,00	0,00
Wood - Chipboard	42,45	76,18	0,00	0,00
Glue for wood	0,46	0,72	0,00	0,00
Cardboard	1,84	2,87	1,40	76,30
Wood - Veneer	2,32	5,18	0,00	0,05
Total:	54,92		1,61	

LCA: Calculation rules

Declared unit:

1 Pcs Titan deep cabinet 3A4 W800 birch veneer body and front

Cut-off criteria:

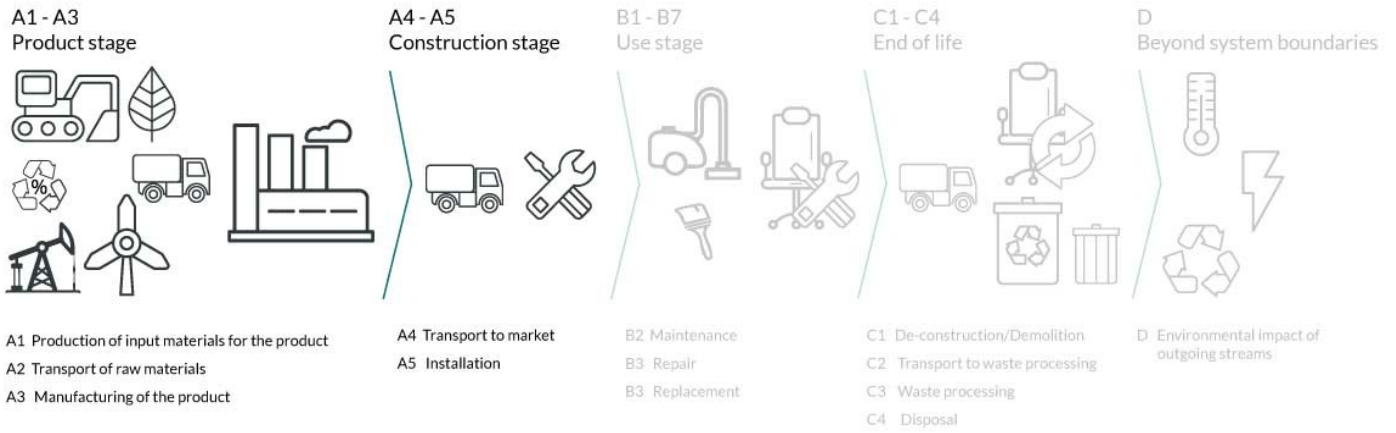
All major raw materials and all the essential energy is included. The production processes for raw materials and energy flows with very small amounts (less than 1%) are not included. These cut-off criteria do not apply for hazardous materials and substances.

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 3.4	Database	2015
Metal - Steel	ecoinvent 3.3	Database	2016
Cardboard	ecoinvent 3.4	Database	2017
Glue for wood	ecoinvent 3.4	Database	2017
Printed paper	ecoinvent 3.4	Database	2017
Process	ecoinvent 3.4	Database	2017
Wood - Chipboard	ecoinvent 3.4	Database	2017
Wood - Medium Density Fibreboard (MDF)	ecoinvent 3.4	Database	2017
Wood - Veneer	S-P-00172	EPD	2017

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)

Type	Capacity utilisation (incl. return) %	Type of vehicle	Distance km	Fuel/Energy consumption	Unit	Value (l/t)
Truck	55,0 %	Truck, over 32 tonnes, EURO 6	1426	0,022606	l/tkm	32,24
Railway					l/tkm	
Boat	71,0 %	Ship, Coastal Barge (250 - 3000t load)	490	0,011179	l/tkm	5,48
Other Transportation					l/tkm	

Assembly (A5)

	Unit	Value
Auxiliary	kg	
Water consumption	m ³	
Electricity consumption	kWh	
Other energy carriers	MJ	
Material loss	kg	
Output materials from waste treatment	kg	1,8400
Dust in the air	kg	
VOC emissions	kg	

End of Life (C1, C3, C4)

	Unit	Value
Hazardous waste disposed	kg	
Collected as mixed construction waste	kg	
Reuse	kg	
Recycling	kg	1,5000
Energy recovery	kg	42,4500
To landfill	kg	

Transport to waste processing (C2)

Type	Capacity utilisation (incl. return) %	Type of vehicle	Distance km	Fuel/Energy consumption	Unit	Value (l/t)
Truck	55,0 %	Truck, over 32 tonnes, EURO 6	72	0,022606	l/tkm	1,63
Railway					l/tkm	
Boat					l/tkm	
Other Transportation					l/tkm	

LCA: Results

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

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

Product stage					Construction installation stage					User stage							End of life stage				Beyond the system boundaries
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential					
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D					
X	X	X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	X	X	MND	MND					

Environmental impact

Parameter	Unit	A1	A2	A3	A4	A5	C2	C3
GWP	kg CO ₂ -eq	3,56E+01	4,16E+00	2,55E+01	6,95E+00	2,52E-02	2,93E-01	2,21E+01
ODP	kg CFC11 -eq	3,88E-06	8,46E-07	1,15E-06	1,36E-06	4,72E-09	6,02E-08	1,61E-07
POCP	kg C ₂ H ₄ -eq	1,73E-02	6,49E-04	1,22E-02	1,10E-03	4,14E-06	4,58E-05	3,18E-04
AP	kg SO ₂ -eq	1,79E-01	1,07E-02	1,12E-01	2,33E-02	9,81E-05	7,56E-04	9,69E-03
EP	kg PO ₄ ³⁻ -eq	3,00E-02	1,50E-03	1,76E-02	3,84E-03	2,25E-05	1,04E-04	3,12E-03
ADPM	kg Sb -eq	1,59E-04	1,03E-05	3,34E-05	1,45E-05	7,75E-08	6,97E-07	1,80E-06
ADPE	MJ	5,70E+02	6,77E+01	2,38E+02	1,10E+02	3,83E-01	4,81E+00	1,43E+01

GWP Global warming potential; ODP Depletion potential of the stratospheric ozone layer; POCP Formation potential of tropospheric photochemical oxidants; AP Acidification potential of land and water; EP Eutrophication potential; ADPM Abiotic depletion potential for non fossil resources; ADPE Abiotic depletion potential for fossil resources

Reading example: 9,0 E-03 = 9,0*10⁻³ = 0,009

*INA Indicator Not Assessed

Resource use

Parameter	Unit	A1	A2	A3	A4	A5	C2	C3
RPEE	MJ	7,55E+02	1,21E+00	2,68E+02	2,05E+00	5,59E-03	8,74E-02	2,98E+02
RPEM	MJ	4,73E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
TPE	MJ	1,23E+03	1,21E+00	2,68E+02	2,05E+00	5,59E-03	8,74E-02	2,98E+02
NRPE	MJ	6,40E+02	6,97E+01	4,36E+02	1,13E+02	3,92E-01	4,96E+00	2,13E+02
NRPM	MJ	3,64E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
TRPE	MJ	6,77E+02	6,97E+01	4,36E+02	1,13E+02	3,92E-01	4,96E+00	2,13E+02
SM	kg	1,61E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
W	m ³	2,00E-01	1,62E-02	2,00E-01	2,68E-02	7,35E-05	1,17E-03	6,83E-02

RPEE Renewable primary energy resources used as energy carrier; RPEM Renewable primary energy resources used as raw materials; TPE Total use of renewable primary energy resources; NRPE Non renewable primary energy resources used as energy carrier; NRPM Non renewable primary energy resources used as materials; TRPE Total use of non renewable primary energy resources; SM Use of secondary materials; RSF Use of renewable secondary fuels; NRSF Use of non renewable secondary fuels; W Use of net fresh water

Reading example: 9,0 E-03 = $9,0 \cdot 10^{-3} = 0,009$

*INA Indicator Not Assessed

End of life - Waste

Parameter	Unit	A1	A2	A3	A4	A5	C2	C3
HW	kg	9,83E-04	3,76E-05	4,97E-04	6,44E-05	2,29E-07	2,64E-06	4,38E-05
NHW	kg	1,52E+01	6,11E+00	7,67E+00	9,18E+00	2,07E-02	4,53E-01	1,18E+01
RW	kg	INA*	INA*	INA*	INA*	INA*	INA*	INA*

HW Hazardous waste disposed; NHW Non hazardous waste disposed; RW Radioactive waste disposed

Reading example: 9,0 E-03 = $9,0 \cdot 10^{-3} = 0,009$

*INA Indicator Not Assessed

End of life - Output flow

Parameter	Unit	A1	A2	A3	A4	A5	C2	C3
CR	kg	4,89E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MR	kg	0,00E+00	0,00E+00	8,98E-02	0,00E+00	1,84E+00	0,00E+00	1,97E+00
MER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	MJ	INA*	INA*	INA*	INA*	INA*	INA*	INA*
ETE	MJ	INA*	INA*	INA*	INA*	INA*	INA*	INA*

CR Components for reuse; MR Materials for recycling; MER Materials for energy recovery; EEE Exported electric energy; ETE Exported thermal energy

Reading example: 9,0 E-03 = $9,0 \cdot 10^{-3} = 0,009$

*INA Indicator Not Assessed

Additional Norwegian 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	Data source	Amount	Unit
Energy, electricity, European average: 1 kWh	ecoinvent 3.4	594,20	g CO2-ekv/kWh

Dangerous substances





The product contains no substances given by the REACH Candidate list or the Norwegian priority list.

Indoor environment

Additional environmental information

Bibliography

- ISO 14025:2010 Environmental labels and declarations - Type III environmental declarations - Principles and procedures.
 ISO 14044:2006 Environmental management - Life cycle assessment - Requirements and guidelines.
 EN 15804:2012+A1:2013 Environmental product declaration - Core rules for the product category of construction products.
 ISO 21930:2017 Sustainability in buildings and civil engineering works - Core rules for environmental product declarations of construction products.
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