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The Norwegian EPD Foundation

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-2647-1354-EN
Registration number:	NEPD-2647-1354-EN
ECO Platform reference number:	-
Issue date:	01.02.2021
Valid to:	01.02.2026

Optima conference table Ø700 HPL white

JSC Svenheim

Svenheim MØBELINDUSTRI AS

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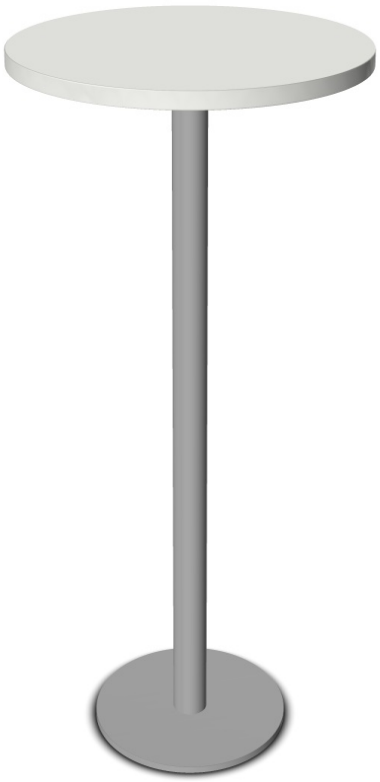

General information

Product:

Optima conference table Ø700 HPL white

Owner of the declaration:

JSC Svenheim
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Program operator:

The Norwegian EPD Foundation
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Manufacturer:

JSC Svenheim
Naujoji str.132 , LT-62175 Alytus
Lithuania

Declaration number:

NEPD-2647-1354-EN

Place of production:

JSC Svenheim
Naujoji str.132 , LT-62175 Alytus
Lithuania

ECO Platform reference number:

Management system:

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

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A1:2013 serves as core PCR
NPCR 026:2018 Part B for furniture

Organisation no:

LT100004040014

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.

Issue date: 01.02.2021

Valid to: 01.02.2026

Declared unit:

1 Pcs Optima conference table Ø700 HPL white

Year of study:

2021

Declared unit with option:

A1,A2,A3,A4,A5,C2,C3

Comparability:

EPDs from programmes other than the Norwegian EPD Foundation may not be comparable

Functional unit:

Development and verification of EPD:

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

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. 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 proccess is reviewed annualy. See Appendix G of EPD-Norway's General Programme Instructions for further information on EPD tools.

Developer of EPD:

Karolina Klimaite

Reviewer of company-specific input data and EPD:

Linas Vosylius

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.

Approved:

Sign

Erik Svanes, Norsus AS

(no signature required)

Håkon Hauan, CEO EPD-Norge

Key environmental indicators	Unit	Cradle to gate A1 - A3
Global warming	kg CO2 eqv	35,99
Total energy use	MJ	698,06
Amount of recycled materials	%	11,44

Product

Market:

Europe

Product description:

Office furniture, Optima table ø700mm with one column

Product specification

Optima board has core of 25mm MDF and is coated with lacquered veneer or laminate in different colors. You can select different edge, profile, surface decors and column height. All our Optima meets requirements and is approved by Møbelfakta.

Technical data:

Total weight 23,72kg 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	0,03	0,17	0,00	0,00
Metal - Steel	9,80	53,57	1,96	20,00
Wood - Medium Density Fibreboard (MDF)	7,96	43,51	0,00	0,00
Plastic - Acrylonitrile butadiene styrene (ABS)	0,21	1,16	0,00	0,00
Plastic - Polypropylene (PP)	0,00	0,00	0,00	0,00
Glue for wood	0,10	0,54	0,00	0,00
High pressure laminate - HPL thin	0,19	1,04	0,00	0,39

Packaging	kg		Recycled share in material (kg)	Recycled share in material (%)
Packaging - Cardboard	0,41		0,31	76,30
Packaging - Cardboard	0,52		0,40	76,30

LCA: Calculation rules

Declared unit:

1 Pcs Optima conference table Ø700 HPL white

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:

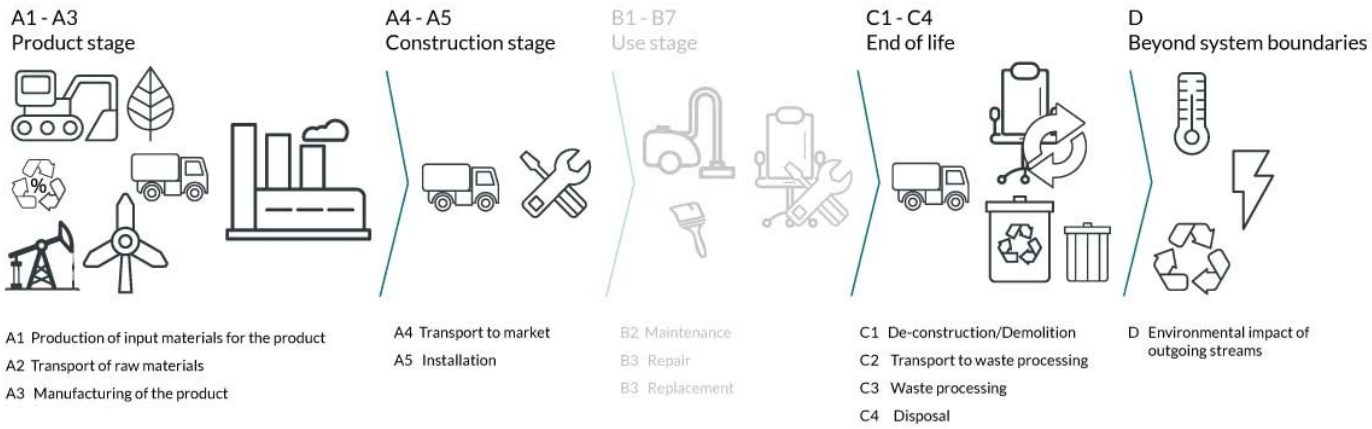
The allocation is made in accordance with the provisions of EN 15804. Effects of primary production of recycled materials is allocated to the main product in which the material was used. The recycling process and transportation of the material is allocated to this analysis.

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 - Polypropylene (PP)	ecoinvent 3.4	Database	2015
Plastic - Acrylonitrile butadiene styrene (ABS)	PlasticsEurope	EPD	2015
Metal - Steel	ecoinvent 3.3	Database	2016
Glue for wood	ecoinvent 3.4	Database	2017
Metal - Steel	ecoinvent 3.4	Database	2017
Packaging - Cardboard	ecoinvent 3.4	Database	2017
Printed paper	ecoinvent 3.4	Database	2017
Wood - Medium Density Fibreboard (MDF)	ecoinvent 3.4	Database	2017
High pressure laminate - HPL thin	EPD-ICL-20170155-CBE1-EN	EPD, IBU	2017

System boundary:



Additional technical information:

Transportation to an average customer in Norway is 1916 km (A4: average European lorry > 32 tonnes) (Transport, freight, by lorry (>32t): 1426 km and by sea transport: 490 km).
The electricity consumed is assumed to be from East pool mix in the East European countries. European mix and energy mix in Lithuania is based on data from the World bank (Based on data 2011).
Electricity mix: 0,053 kg CO2 eqv/MJ (East Europe mix).

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

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

In the end of life stage, the transport distance for waste to waste processing is 72 km (C1). The reuse, recovery and recycling stage is beyond the system boundaries (D). It is assumed that the solution is dismantled and the materials recycled. In the table below Norwegian treatment of industrial waste is calculated. This calculation includes only CO2 emissions (GWP) in the Cmodules. The transport distance to reuse, recovery or recycling varies for each material, but the average distance is 373 km. The vehicles used and associated data are described in detail in [5].

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	38,8 %	Truck, 16-32 tonnes, EURO 6	1426	0,043626	l/tkm	62,21
Railway					l/tkm	
Boat	71,0 %	Ship, Coastal Barge (250 - 3000t load)	490	0,011179	l/tkm	5,48
Other Transportation					l/tkm	

End of Life (C1, C3, C4)

.	Unit	Value
Hazardous waste disposed	kg	
Collected as mixed construction waste	kg	
Reuse	kg	
Recycling	kg	9,8000
Energy recovery	kg	7,9600
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	38,8 %	Truck, 16-32 tonnes, EURO 6	72	0,043626	l/tkm	3,14
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 bondaries
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	MNR	MNR	MNR	MNR	MNR	MNR	MNR	MNR	X	X	MNR	.	MNR

Environmental impact

Parameter	Unit	A1	A2	A3	A4	A5	C2	C3
GWP	kg CO_2 -eq	3,01E+01	1,43E+00	4,42E+00	5,95E+00	0	2,72E-01	4,15E+00
ODP	kg CFC11 -eq	2,09E-06	2,87E-07	2,32E-07	1,10E-06	0	5,12E-08	3,02E-08
POCP	kg C_2H_4-eq	1,67E-02	2,21E-04	2,92E-03	9,07E-04	0	4,12E-05	5,95E-05
AP	kg SO_2 -eq	1,39E-01	3,63E-03	2,33E-02	1,67E-02	0	6,40E-04	1,82E-03
EP	kg PO_4^{3-} -eq	3,21E-02	4,98E-04	3,71E-03	2,52E-03	0	8,40E-05	5,85E-04
ADPM	kg Sb -eq	3,23E-04	3,66E-06	6,85E-06	1,71E-05	0	8,45E-07	3,38E-07
ADPE	MJ	3,59E+02	2,30E+01	4,89E+01	8,85E+01	0	4,11E+00	2,67E+00

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	1,51E+02	3,99E-01	5,28E+01	1,36E+00	0	6,07E-02	5,60E+01
RPEM	MJ	8,15E+01	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00
TPE	MJ	2,33E+02	3,99E-01	5,28E+01	1,36E+00	0	6,07E-02	5,60E+01
NRPE	MJ	3,88E+02	2,37E+01	8,18E+01	9,07E+01	0	4,21E+00	4,00E+01
NRPM	MJ	1,07E+01	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00
TRPE	MJ	3,99E+02	2,37E+01	8,18E+01	9,07E+01	0	4,21E+00	4,00E+01
SM	kg	2,67E+00	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00
RSF	MJ	3,78E-02	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00
NRSF	MJ	2,94E-02	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00
W	m^3	2,74E-01	5,33E-03	3,88E-02	1,75E-02	0	7,96E-04	1,28E-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*10-3 = 0,009
*INA Indicator Not Assessed

End of life - Waste

Parameter	Unit	A1	A2	A3	A4	A5	C2	C3
HW	kg	2,02E-03	1,29E-05	1,02E-04	5,49E-05	0	2,48E-06	8,21E-06
NHW	kg	3,18E+01	1,95E+00	1,13E+00	4,56E+00	0	2,25E-01	2,22E+00
RW	kg	INA*	INA*	INA*	INA*	0	INA*	INA*

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

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

End of life - Output flow

Parameter	Unit	A1	A2	A3	A4	A5	C2	C3
CR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00
MR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	9,89E+00
MER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0	0,00E+00	0,00E+00
EEE	MJ	INA*	INA*	INA*	INA*	0	INA*	INA*
ETE	MJ	INA*	INA*	INA*	INA*	0	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*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).

Dangerous substances

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

Indoor environment

Our furniture doesn't contain any substraces that affect indoor climate

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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