

ENVIRONMENTAL PRODUCT DECLARATION

In accordance with ISO 14025

Owner of the declaration	Flokk AS
Program holder and publisher	The Norwegian EPD Foundation
Declaration number	NEPD-419-295-EN
Issue date	01.03.2016
Valid to	01.03.2021

RBM Standard klappbord 4680

120x45x2,2cm with black legs

Product

Flokk AS

Manufacturer



HÅG · RH · BMA · OFFECCT · RBM



General information

Product

RBM Standard klappbord 4680 120x45x2,2cm
with black legs

General Information

The Norwegian EPD Foundation
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Declaration number:

NEPD-419-295-EN

This declaration is based on Product Category Rules:

PCR for Seating Solution, NPCR 003 extended version 2013, in accordance with recommendations by the Norwegian EPD Foundation.

Declared unit:

One table: RBM Standard klappbord 4680

Declared unit with option:

Option:
- Table top 120cm x 45cm x 2,2cm
- Black legs

Functional unit:

Production of one table provided and maintained for a period of 15 years.

This EPD has been worked out by:

The declaration has been developed using Furniture EPD Tool Version 1.1.5, Approval: NEPD04
Company specific data collected and registered by:

Laura Fouilland

Company specific data audited by:

Atle Thiis-Messel

Verification:

Independent verification of data, other environmental information and EPD has been carried out in accordance with ISO14024, 8.1.3. and 8.1.4.

externally

Mie Vold, Senior Research Scientist

(Independent verifier approved by EPD Norway)

Owner of the declaration:

Flokk AS
Contact person: Atle Thiis-Messel
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E-mail: atle.messel@flokk.com

Manufacturer

Flokk AB

Place of production:

Vallgatan 1, 571 23 Nässjö, Sweden

Management system:

ISO 14001, Certificate No.151496-2014-AE-NOR-NA
From the accredited unit: DNV Certification As, Norway.
ISO 9001, Certificate No.151495-2014-AQ-NOR-NA
From the accredited unit: DNV Certification As, Norway.

Org. No:

No 928 902 749

Issue date:

01.03.2016

Valid to:

01.03.2021

Comparability:

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

Year of study:

2016

Approved

Håkon Hauan
Managing Director of EPD-Norway

Key environmental indicators	Unit	Cradle to Gate A1-A3
Global warming	kg CO ₂	22,3
Total energy use	MJ	428
Amount of recycled materials	%	13%

Product

Product Description and Application

A stylish and practical table for exciting events. Numerous different shaped tops allow for creative table arrangements at large events. RBM Standard folding tables are formable and flexible. Easy to fold and require little space for storage. A good choice for the auditorium, canteen or assembly hall.

Technical Data

Total Weight: 13,3 kg (packaging excluded)
 EN 15372 tested & approved
 Möbelfakta certified

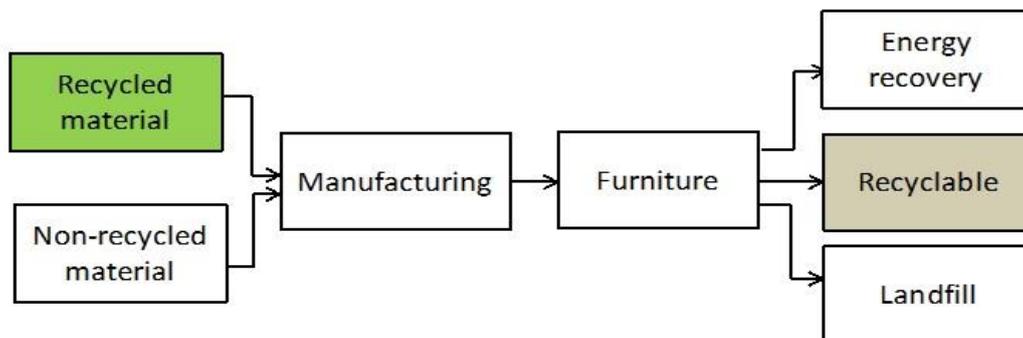
Market

Worldwide

Reference Service Life

15 years

Materials			Recycled share in product		Recyclable potential of product	
Unit	g	%	%	g	%	g
Wood	8146	56%	0%	0	0%	0
Metal - Steel	4865	33%	20%	954	100%	4865
Plastic - Nylon	276	2%	0%	0	100%	276
Plastic - Polyurethane	36	0%	0%	0	100%	36
Total product	13323			0		0
Packaging - Polystyrene	12	0%	0%	0		0
Packaging - Cardboard	1300	9%	76%	988	100%	1300
Total product with packaging	14635		13%	1942	44%	6477



Product manufactured from 13% recycled material (packaging included)

At end of life product contains 44% recyclable material

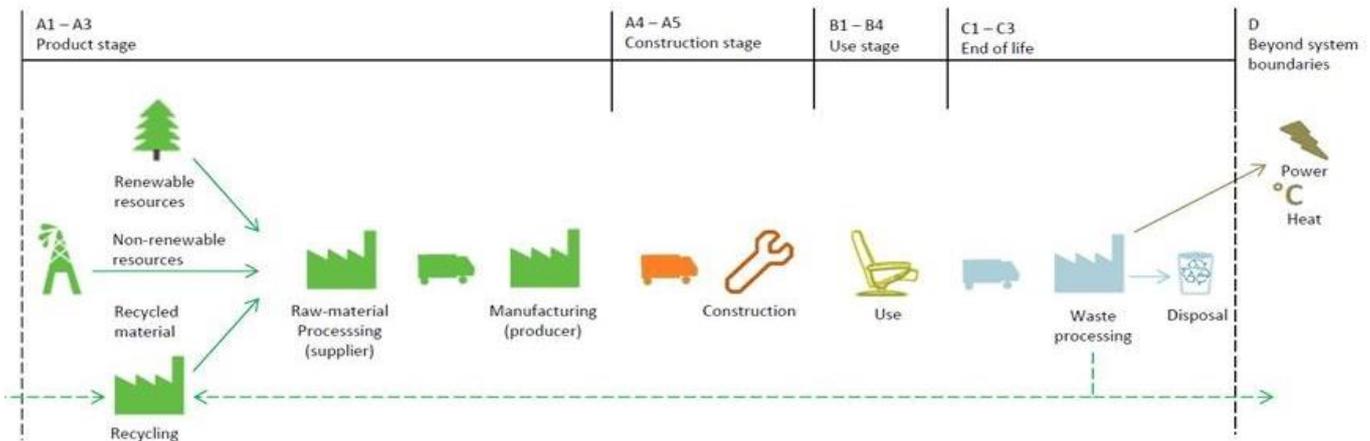
LCA: Calculation rules

Declared unit:

Production of one seating solution provided and maintained for a period of 15 years.

System boundary:

Life cycle stages included are described in figure and through the corresponding letter and number designations in the declaration (see figure below)



Data quality:

Specific manufacturing data from 2014 are used. Data from Ecoinvent 3.0.1. and Østfoldforskning databases are used as the basis for raw materials and energy carrier production. See [6].

Cut-off criteria:

All major raw materials and all the essential energy is included. The production processes for raw materials and energy flows that are included with very small amounts (<1%) are not included. This cut-off rule does not apply for hazardous materials and substances

Allocation:

Where virgin materials are used, emissions and energy consumption connected with extraction and production are included.

Where recycled materials are used in the product, emissions and energy consumption related to the recycling process are included.

Emissions from incineration are allocated to the product system that uses the recovered energy.

Emissions from incineration of waste are allocated to the product system that uses the recovered energy.

LCA: Scenarios and additional technical information

Transportation to an average customer in Copenhagen is 360 km (A4: average European lorry > 32 tonnes)

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 or combusted according to the general Norwegian treatment of industrial waste (see the table below). The transport distance to reuse, recovery or recycling is varying for each material, but the average distance is 373 km. The vehicles used and associated data are described in detail in [5].

	Material recovery	Energy recovery	Disposal
Aluminium	70,1 %	0,0 %	30 %
Steel	70,1 %	0,0 %	30 %
Plastic	64,3 %	30,8 %	5 %
Cardboard	94,5 %	5,5 %	0 %

LCA: Results

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

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

Product stage			Construction stage		Use stage				End of life			Beyond the system boundaries
Raw materials	Transport	Manufacturing	Transport	Construction	Maintenance	Repair	Replacement	Operational energy use	Transport	Waste Processing	Disposal	Reuse-recovery recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	D
x	x	x	x	MNR	MNR	MNR	MNR	MNR	x	x	x	x

Environmental impact (INA=Indicator Not Assessed)

Parameter	A1	A2	A3	A1-A3	A4	B1	C1	C2	C3	C1-C3	D
GWP	21,7	0,5	9,8E-03	22,3	0,4	INA	0,8	1,9	2,0	4,8	-2,9
ODP	1,5E-06	9,6E-08	2,5E-10	1,6E-06	8,4E-08	INA	INA	INA	INA	INA	-1,2E-07
POCP	1,0E-02	1,3E-04	4,8E-06	1,0E-02	7,7E-05	INA	INA	INA	INA	INA	-1,3E-03
AP	0,4	5,3E-04	1,1E-04	0,4	3,9E-04	INA	INA	INA	INA	INA	-3,6E-03
EP	0,1	3,1E-03	1,1E-04	0,1	1,8E-03	INA	INA	INA	INA	INA	-1,2E-02
ADPM*	2,2E-04	1,0E-06	8,5E-07	2,2E-04	9,9E-07	INA	INA	INA	INA	INA	-9,3E-06
ADPE	271,7	7,8	0,1	279,6	6,8	INA	INA	INA	INA	INA	-36,9

GWP Global warming potential (kg CO₂-eqv.); **ODP** Depletion potential of the stratospheric ozone layer (kg CFC11-eqv.); **POCP** Formation potential of tropospheric photochemical oxidants (kg C₂H₄-eqv.); **AP** Acidification potential of land and water (kg SO₂-eqv.); **EP** Eutrophication potential (kg PO₄-3-eqv.); **ADPM** Abiotic depletion potential for non fossil resources (kg Sb -eqv.); **ADPE** Abiotic depletion potential for fossil resources (MJ);

* Some processes use Ecoinvent 3.0.1. and thus data on renewable resources is omitted. The true ADPM, RPEE, RPEM and TPE may be higher than indicated. This issue will be addressed in a new version of Ecoinvent 3, data from which was not available when this declaration was prepared.

Resource use (INA=Indicator Not Assessed)

Parameter	A1	A2	A3	A1-A3	A4	B1	C1	C2	C3	C1-C3	D
RPEE*	129,7	0,1	4,2	134,0	0,1	INA	INA	INA	INA	INA	-0,2
RPEM*	70,4	3,5E-02	5,6E-03	70,5	3,2E-02	INA	INA	INA	INA	INA	-1,7
TPE*	200,1	0,2	4,2	204,5	0,1	INA	INA	INA	INA	INA	-1,9
NRPE	285,9	8,1	0,1	294,1	7,0	INA	INA	INA	INA	INA	-36,4
NRPM	11,2	0,0	4,3E-04	11,2	0,0	INA	INA	INA	INA	INA	0,0
TNRPE	297,2	8,1	0,1	305,4	7,0	INA	INA	INA	INA	INA	-36,4
SM	2,1	0,0	1,7E-13	2,1	0,0	INA	INA	INA	INA	INA	-3,7
RSF	0,0	0,0	1,9E-06	1,9E-06	0,0	INA	INA	INA	INA	INA	0,0
NRSF	0,0	0,0	0,0	0,0	0,0	INA	INA	INA	INA	INA	0,0
W	0,0	0,0	0,0	0,0	0,0	INA	INA	INA	INA	INA	0,0

RPEE Renewable primary energy resources used as energy carrier (MJ); **RPEM** Renewable primary energy resources used as raw materials (MJ); **TPE** Total use of renewable primary energy resources (MJ); **NRPE** Non renewable primary energy resources used as energy carrier (MJ); **NRPM** Non renewable primary energy resources used as materials (MJ); **TNRPE** Total use of non renewable primary energy resources (MJ); **SM** Use of secondary materials (kg); **RSF** Use of renewable secondary fuels (MJ); **NRSF** Use of non renewable secondary fuels (MJ); **W** Use of net fresh water (m³);

End of life - Waste and Output flow (INA=Indicator Not Assessed)

Parameter	A1	A2	A3	A1-A3	A4	B1	C1	C2	C3	C1-C3	D
HW	1,3E-03	4,6E-06	1,8E-06	1,3E-03	4,0E-06	INA	INA	INA	INA	INA	0,0
NHW	18,2	0,7	1,6E-02	18,9	0,7	INA	INA	INA	INA	INA	-0,4
RW	0,0	0,0	0,0	0,0	0,0	INA	INA	INA	INA	INA	0,0
CR	0,0	0,0	0,0	0,0	0,0	INA	INA	INA	INA	INA	0,0
MR	1,2E-03	0,0	1,6E-04	1,4E-03	0,0	INA	INA	INA	INA	INA	0,0
MER	0,0	0,0	2,3E-06	2,3E-06	0,0	INA	INA	INA	INA	INA	0,0
EEE	0,0	0,0	0,0	0,0	0,0	INA	INA	INA	INA	INA	0,0
ETE	0,0	0,0	0,0	0,0	0,0	INA	INA	INA	INA	INA	0,0

HW Hazardous waste disposed (kg); **NHW** Non hazardous waste disposed (kg); **RW** Radioactive waste disposed (kg); **CR** Components for reuse (kg); **MR** Materials for recycling (kg); **MER** Materials for energy recovery (kg); **EEE** Exported electric energy (MJ); **ETE** Exported thermal energy (MJ);

Specific Norwegian requirements

Electricity

Electricity purchased by Ørsted for its production sites in Sweden and Norway comes with a guarantee of origin for Nordic Hydropower.

Therefore the electricity mix used in this EPD is: Energy, electricity, hydro, Nordic average.

This gives following greenhouse gas emissions: 2,8 g CO₂-eq/kWh

Dangerous Substances

None of the following substances have been added to the product: Substances on the REACH Candidate list of substances of very high concern (of 17.12.2014) substances on the Norwegian Priority list (published 04.12.2014) and substances that lead to the product being classified as hazardous waste. The chemical content of the product complies with regulatory levels as given in the Norwegian Product Regulations.

Indoor environment

Not prepared

Climate declaration

Not relevant

Bibliography

[1] NS-EN ISO 14025:2006, Environmental labels and declarations-Type III environmental declarations Principles and procedures

[2] NS-EN ISO 14044:2006, Environmental management - Life cycle assessment - Requirements and guidelines

[3] EN 15804:2012 + A1:2013 Sustainability of construction works - Environmental product declaration Core rules for the product category of construction products

[4] PCR for seating solution: PRODUCT-CATEGORY RULES(PCR) for preparing an environmental product declaration (EPD) for Product Group "Seating solution", PCR 2008:NPCR 003, extended version

[5] Raadal, H. L., Modahl, I. S., Lyng, K. A. (2009). Klimaregnskap for avfallshåndtering, Fase I og II. OR 18.09. ISBN : 978-82-7520-611-2, 82-7520-611-1

[6] Brekke, A., Møller, H., Baxter, J., Askham, C. (2014). Verktøy - miljødeklarasjon for møbel Dokumentasjon som grunnlag for verifisering, Ostfold Research

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