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The Norwegian EPD Foundation

ENVIRONMENTAL PRODUCT DECLARATION

in accordance with ISO 14025

Owner of the declaration:	Back App AS
Program operator:	The Norwegian EPD Foundation
Publisher:	The Norwegian EPD Foundation
Declaration number:	NEPD-391-277-EN
Issue date:	06.01.2016
Valid to:	06.01.2021 (validity extended to 15.10.2021)

BA 360 balance board

Back App AS

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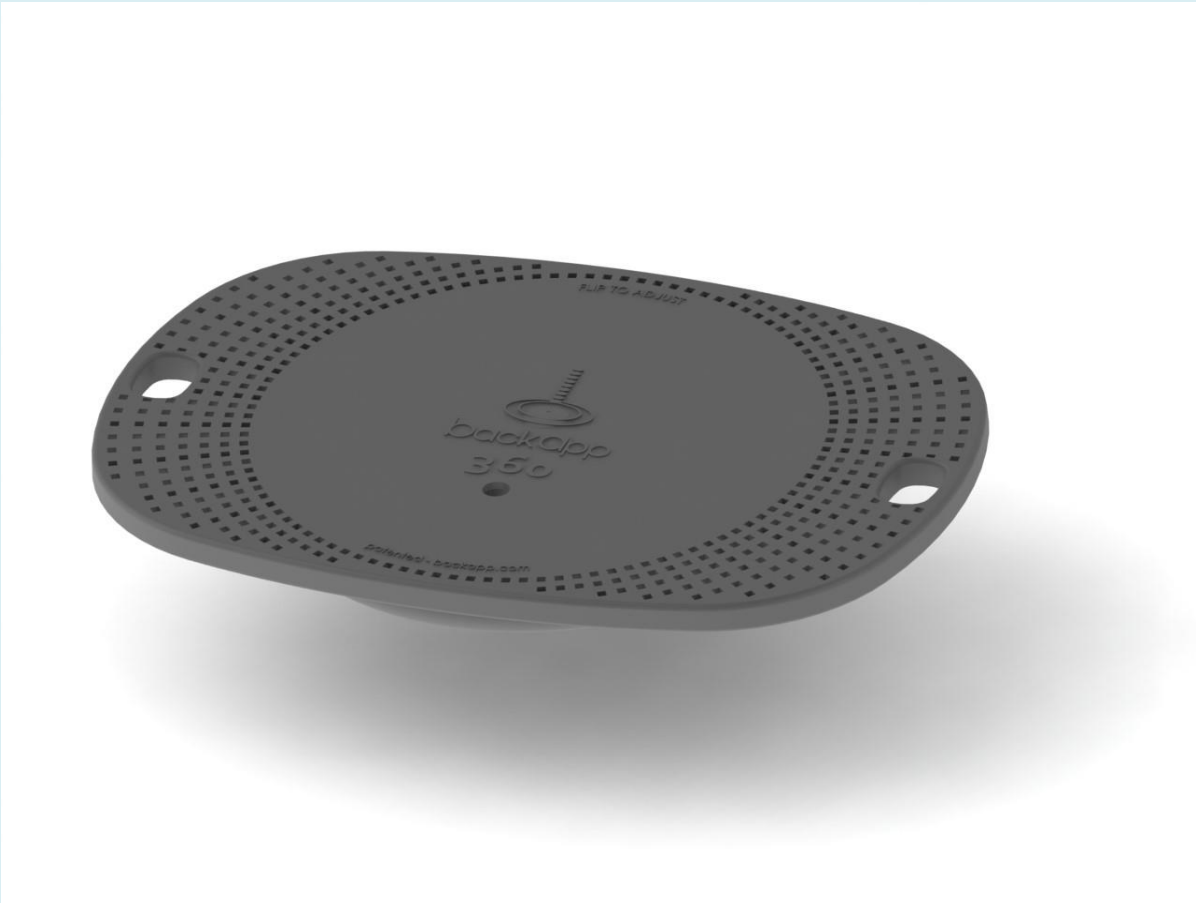

General information

Product
Balance board

Owner of the declaration
Back App AS
Contact person: Jostein Magerøy
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Program holder
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Manufacturer
Back App AS

Declaration number
NEPD-391-277-EN

Place of production:
Box 68, SE-334 21 Anderstorp, Sweden

This declaration is based on Product Category Rules:
NPCR 003:2015 Seating. The balance board is used to stand on at an office work station, and thus, considered to have the same function as an office chair. Therefore, the PCR NPCR 003:2015 Seating is used.

Management system:

Statements
The owner of the declaration shall be liable for the underlying information and evidence.
EPD Norway shall not be liable with respect to manufacturer, life cycle assessment data and evidences.

Organisation no:
986 240 977

Issue date
06.01.2016

Valid to
06.01.2021 (validity extended to 15.10.2021)

Declared unit:
Produced unit of seating solution (balance board)

Year of study:
2015

Declared unit with option:

Comparability:
EPDs from other programmes than the Norwegian EPD foundation may not be comparable.

Functional unit:

The EPD has been worked out by:

Cecilia Askham and Ellen Soldal

Østfoldforskning

Verification:

Independent verification of the declaration and data, according to ISO14025:2010

☐ internal ☑ external

Third party verifier:

PhD Andreas Brekke
(Independent verifier approved by EPD Norway)

Approved

Håkon Hauan
Managing Director of EPD-Norway

Product

Product description:
Back App 360 Balance board is a board used at the office desk as an alternative to the office chair. The purpose is to avoid health problems due to too much sitting and lack of motion. Another use is as an exercise tool for balance training.

Technical data:
Weight: 2.02 kg

Market:
Europe

Reference service life:
15 years

Product specification

Materials	kg	%
Plastics	1,66	82 %
Cardboard	0,30	15 %
Various	0,06	3 %
Total	2,02	100 %

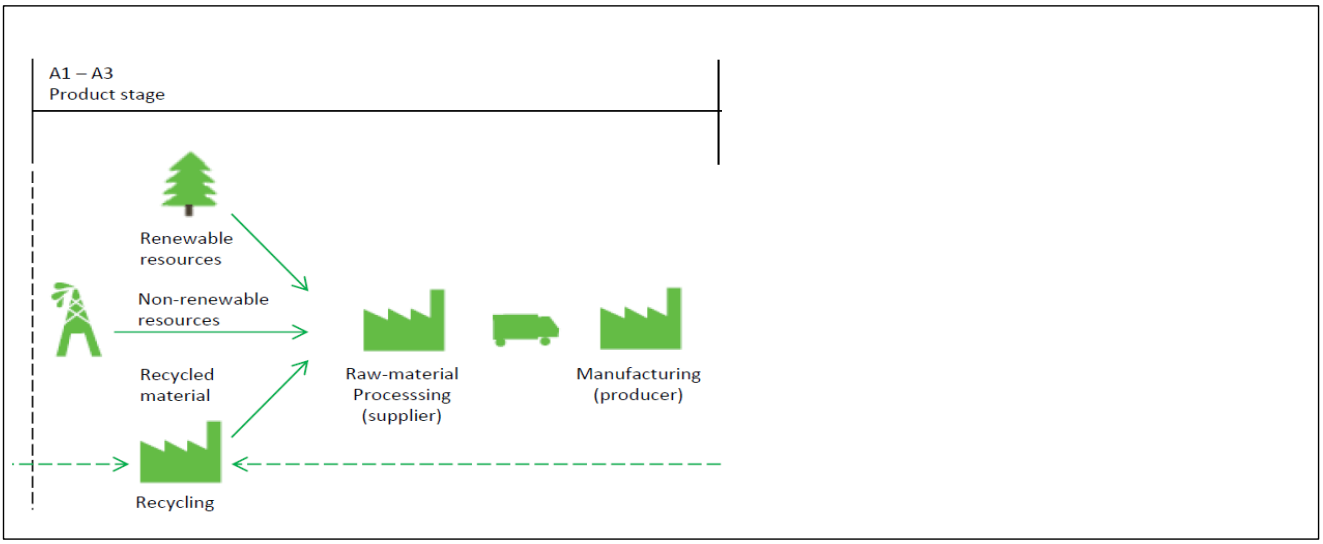
LCA: Calculation rules

Declared unit:
The declared unit is one balance board manufactured and packed, ready to leave the factory gate.

The Balance Boards are manually assembled, the tilt damping device fastened by double-sided tape, then the boards are packed and placed on pallets at Holmgrens Plast AB. The boards are sent to Exmo for distribution.

Figure 1 illustrates the life cycle stages that are included (A1-A3).

System boundary:
Life cycle stages included are illustrated in the Figure 1. Life ccyle stages included are raw material extraction and processing, transport to the manufacturer and manufacturing of seating solution. Data for production year 2013 and 2014 has been used. The production of plastic components is located in Sweden.
Because the Balance board is manually assembled, there are no environmental impact that can be separeated, related to the assembly of the product (A3).



Data quality:
Specific data have been collected. Where specific data was not available, generic data from Ecoinvent 3 (Weidema et al.2013) and Østfold Research's database have been used. The generic data from Ecoinvent is of various age. The specific data were colleced from the raw material manufacturers and are from 2013 and 2014.

Cut-off criteria:
All major raw materials and all the essential energy is included. The production process 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:
The allocation is made in accordance with the provisions of ISO 14025. Incoming energy and water and waste production in-house is allocated equally among all products through mass allocation. Effects of primary production of recycled materials allocated to the main product in which the material was used. The recycling process and transportation of the material is allocated to this analysis.

LCA: Scenarios and additional technical information

There are no sceniaros included for the life cycle stages A4-D.

LCA: Results

Various plastic types is the main material used in the balance boad 360, and the supply of these plastic parts are most important in most of the impact categories. Eutrophication is an exception where use of wood pallets is most important.

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

Product stage			Assembly stage		Use 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	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

Environmental impact

Parameter	Unit	A1	A2	A3	A1-A3
GWP	kg CO_2 -eqv	5,46	8,08E-03	0,00	5,46
ODP	kg CFC11-eqv	3,63E-07	1,48E-09	0,00	3,65E-07
POCP	kg C_2H_4 -eqv	1,19E-03	1,54E-06	0,00	1,19E-03
AP	kg SO_2 -eqv	0,02	4,21E-05	0,00	0,02
EP	kg PO_4^{3-}-eqv	4,57E-03	9,50E-06	0,00	4,58E-03
ADPM	kg Sb-eqv	7,52E-06	2,60E-08	0,00	7,54E-06
ADPE	MJ	139	0,12	0,00	139

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

Resource use

Parameter	Unit	A1	A2	A3	A1-A3
RPEE	MJ	19,7	1,53E-03	0,00	19,7
RPEM	MJ	4,92	4,44E-04	0,00	4,92
TPE	MJ	24,7	1,97E-03	0,00	24,7
NRPE	MJ	105	0,12	0,00	105
NRPM	MJ	71,3	0,00	0,00	71,3
TRPE	MJ	177	0,12	0,00	177
SM	kg	0,00	0,00	0,00	0,00
RSF	MJ	0,00	0,00	0,00	0,00
NRSF	MJ	0,00	0,00	0,00	0,00
W	m^3	0,10	2,56E-05	0,00	0,10

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

End of life - Waste					
Parameter	**Unit**	**A1**	**A2**	**A3**	**A1-A3**
HW	kg	2,31E-05	7,30E-08	0,00	2,32E-05
NHW	kg	0,79	6,44E-03	0,00	0,79
RW	kg	0,00	0,00	0,00	0,00

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

End of life - Output flow					
Parameter	**Unit**	**A1**	**A2**	**A3**	**A1-A3**
CR	kg	0,00	0,00	0,00	0,00
MR	kg	0,03	0,00	0,00	0,03
MER	kg	0,00	0,00	0,00	0,00
EEE	MJ	0,00	0,00	0,00	0,00
ETE	MJ	0,00	0,00	0,00	0,00

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

Additional Norwegian requirements

Greenhous gas emission from the use of electricity in the manufacturing phase
The following data from Ecoinvent version 3 (Weidema et al. 2013)) for Swedish production mix included import, low voltage is used; Electricity, low voltage {SE}| market for | Alloc Rec, U. Production of transmission lines, in addition to direct emissions and

Data source	Amount	Unit
Econinvent v3 (Weidema et al. 2013)	62,9	g CO_2-eqv/kWh

Dangerous substances

- ☑ The product contains no substances given by the REACH Candidate list (The European parliament 2006, European Chemicals Agency, 2015) or the Norwegian priority list (Norwegian Environment Agency, 2015)
- ☐ The product contains substances given by the REACH Candidate list or the Norwegian priority list that are less than 0,1 % by weight.
- ☐ The product contain dangerous substances, more then 0,1% by weight, given by the REACH Candidate List or the Norwegian Priority list, see table.
- ☐ The product contains no substances given by the REACH Candidate list or the Norwegian priority list. The product is classified as hazardous waste (Avfallsforskiften, Annex III), see table.

Indoor environment
No tests have been carried out on the product concerning indoor climate

Carbon footprint
Carbon footprint has not been worked out for the product.

Bibliography

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ISO 14044:2006 — *Environmental management - Life cycle assessment - Requirements and guidelines*

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Weidema, B., Bauer, C., Hischier, R., Mutel, C., Nemecek, T., Reinhard, J., Vadenbo, C.O., 2013 — *The Ecoinvent database: Overview and methodology, Data quality guideline for the Ecoinvent database version 3.*

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