Trust.

Type II environmental label: self-declared environmental claim

24613 EXTO Laptop Cooling Stand

Issue Date

2024-07-03

Owner of Declaration

Trust

According to

ISO14021:2016 and EN50693

General information

Company

Manufacturer	Trust International B.V.
Production location	Shenzhen, China
Company address	Laan van Barcelona 600, 3317 DD Dordrecht, The Netherlands
Website	https://www.trust.com/

Self-declared environmental claim

This self-declared environmental claim is drawn up to quantify the environmental impact of one unit. The environmental impact is studied by a Life Cycle Assessment (LCA). The LCA and this declaration are not externally verified.

The disclosed environmental information is in the form of a type II environmental label, a self-declared environmental claim in line with ISO 14021 [1] and EN 50693 [2]. The template for this type II environmental label is set up by Hedgehog Company, while the product and environmental information is filled out by Trust.

Environmental label information

Product name	EXTO Laptop Cooling Stand
Product ID	24613
Related Product ID(s)	-
PCR	EN 50693
Software	Mobius v 1.1.1
Background database	Ecoinvent v3.8
Impact assessment method	EF 3.0 Method (Ecoinvent v3.8 cut-off)

Product description

Laptop stand with built-in cooling fans for a comfortable tilted typing and viewing position and protection against overheating

Size (height x width x depth)	Total weight	Power source
350x255x25 mm	630 g	USB

The product does not contain material content of substances of very high concern (SVHC).

Functional unit

The function studied in this EPD is that of raising the display of the laptop to a more ergonomic working height, and to cool the laptop with the built-in fans.

Scope of declaration

This is a cradle-to-grave type II environmental label for the EXTO Laptop Cooling Stand. The life cycle stages are shown as below (x = included, ND = non declared).

Manufacturing stage	Distribution stage	Installation stage	Use stage	De-installation stage	End-of-life stage
x	x	ND	x	ND	x

Calculation rules

The method used to quantify the environmental performance of the product in question is the life cycle assessment (LCA) regulated by ISO 14040 and ISO 14044. Process data over the year of 2023 is used to model the product system. Ecoinvent v3.8 is used as a background database.

Manufacturing

The inventoried data used to model the EXTO Laptop Cooling Stand is collected from Trust International B.V. Transport to the production site is calculated based on collected information from product suppliers. Coverage of the product manufacturing includes the necessary energy inputs for product assembly, and manufacturing waste. Manufacturing waste is assumed to be incinerated completely, without energy recovery. Further energy inputs and data on the generated manufacturing waste are collected from the product manufacturer.

Table 1. Recycled content of the EXTO Laptop Cooling Stand.

Component	Material	Recycled content %
Housing bottom	ABS plastic	85% PCR
Housing top	Aluminium	-
Fan	PC	-
Motor	Copper	-
Pads	Rubber	-
Screw	iron	-
PCBA	PCBA	-
Cable	PVC cable	-
Package	Carton	-
User manual	Paper	-

Distribution

After the production stage, the products are prepared for shipping to the Netherlands. The final products are transported by truck to the Port of Shenzhen. Further transport is by oceanic containers to the Port of Rotterdam. After docking of the ship, the products are further transported to the Trust distribution center in 's-Heerenberg. Approximately 85% of the products are transported by truck, while 15% is transported by barge. Final transport to the end-user of the products is based on default transport values according to EN 50693, which is 1.000 kilometers for local transport.

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Use stage

The use stage includes the energy consumption and other flows (emissions, water, etc.) of the product during its use over the RSL. The Reference Service Life (RSL) of the product is five years. Assuming use of 10 hours/week, and 5 year lifespan. 10x 2,5Wh * 52 weeks/year * 5 year = 6,5 kWh. Production, distribution, installation, end-of-life of materials or energy aimed at extending the product lifetime, like maintenance and repair are included when relevant.

End-of-life

The end-of-life stage starts with waste collection. The transport distance to the waste treatment facilities is assumed to be 1.000 kilometres, in accordance with EN 50693. Moreover, this study uses the default values for end-of-life treatment in accordance with EN 50693. For materials that are not included in this standard, appropriate waste treatment scenarios are selected.

The end-of-life steps start after the de-installation and include:

- Collection, transport and storage
- De-pollution
- Fractions separation and preparation (e.g. dismantling, crushing, sorting processes)
- Material recovery processes (metallurgical, chemical processes)
- Energy recovery processes (incineration with energy recovery, use as solid recovered fuel)
- Disposal (incineration without energy recovery, landfill)

The end-of-life stage ends at the disposal or the point of substitution.

In line with the EN 50693 Annex G formula without benefits, this study excludes system expansion and does not account for benefits beyond the system boundary. Thus, the impacts of the energy and material recovery operations are not included in the end-of-life stage of this product system.

Table 2. Applied values for the end-of-life modelling of the EXTO Laptop Cooling Stand.

Material	Incineration (g)	Recycling (g)
ABS	294,00	73,50
aluminium	20,00	80,00
Cable	0,00	15,50
Carton	6,00	44,00
motor	30,50	19,50
Other plastics	38,00	0,00
PCB	8,08	1,43
rubber	4,50	0,00
Steel	9,30	37,50
Transport to waste treatment	0,00	0,68

Environmental impact per declared unit

Table 3. Environmental impact for the EXTO Laptop Cooling Stand.

Impact category	Unit	Manufacturing	Distribution	Use	End-of-life	Total
AP	mol H+ eq	3,73E-02	7,33E-03	1,61E-02	8,99E-04	6,16E-02
GWP100	kg CO2 eq	5,03E00	3,49E-01	2,78E00	9,92E-01	9,15E00
GWP-b	kg CO2 eq	3,58E-02	1,06E-04	1,76E-02	1,69E-02	7,04E-02
GWP-f	kg CO2 eq	4,99E00	3,48E-01	2,76E00	9,75E-01	9,07E00
GWP-luluc	kg CO2 eq	3,70E-03	1,92E-04	6,41E-03	5,85E-05	1,04E-02
ETP-fw	CTUe	2,60E02	3,50E00	3,90E01	4,34E00	3,07E02
EP-fw	kg P eq	2,22E-04	2,05E-06	2,94E-04	1,96E-06	5,21E-04
EP-m	kg N eq	5,06E-03	1,90E-03	2,04E-03	3,21E-04	9,32E-03
EP-T	mol N eq	5,71E-02	2,11E-02	2,52E-02	3,45E-03	1,07E-01
HTP-c	CTUh	8,84E-09	1,79E-10	1,01E-09	1,51E-10	1,02E-08
HTP-nc	CTUh	2,14E-07	3,52E-09	3,43E-08	5,79E-09	2,58E-07
IR	kBq U-235 eq	9,42E-02	2,09E-02	4,98E-01	7,86E-03	6,21E-01
SQP	Pt	9,48E00	2,24E00	1,26E01	1,48E00	2,58E01
ODP	kg CFC11 eq	1,94E-07	7,43E-08	2,33E-07	2,66E-08	5,28E-07
PM	disease inc.	3,91E-07	2,27E-08	4,41E-08	1,47E-08	4,73E-07
POCP	kg NMVOC eq	1,71E-02	5,55E-03	6,39E-03	9,48E-04	2,99E-02
ADP-f	MJ	5,55E01	4,83E00	5,70E01	1,89E00	1,19E02
ADP-mm	kg Sb eq	1,10E-04	5,32E-06	2,02E-05	3,32E-06	1,38E-04
WDP	m3 depriv.	9,99E-01	1,07E-02	6,37E-01	5,48E-02	1,70E00

GWP100 = Climate change; **GWP-f =** Climate change - fossil; **GWP-b =** Climate change - biogenic; **GWP-luluc =** Climate change - Land use and LU change; **ODP =** Ozone depletion; **HTP-c =** Human toxicity, cancer; **HTP-nc =** Human toxicity, non-cancer; **PM =** Particulate matter; **IR =** Ionising radiation; **POCP =** Photochemical ozone formation; **AP =** Acidification; **EP-T =** Eutrophication, terrestrial; **EP-m =** Eutrophication, marine; **EP-fw =** Eutrophication, freshwater; **ETP-fw =** Ecotoxicity, freshwater; **SQP =** Land use; **WDP =** Water use; **ADP-f =** Resource use, fossils; **ADP-mm =** Resource use, minerals and metals

References

[1] ISO 14021: Environmental labels and declarations — Self-declared environmental claims (Type II environmental labelling)', International Organization for Standardization, ISO14021:2016.

[2] NEN-EN 50693: Product category rules for life cycle assessments of electronic and electrical products and systems, NEN-EN:50693:2019