



EcoLeaf

Type III Environmental Declaration (EPD)

Registration number : JR-AI-23112E

Japan EPD Program by SuMPO

Sustainable Management Promotion Organization

14-8, Uchikanda 1-chome, Chiyoda-ku, Tokyo Japan

<https://ecoleaf-label.jp/>

brother
at your side

BROTHER INDUSTRIES, LTD.

Monochrome Laser Printer

HL-EX415DW for North America



Functional unit

Per unit of product

System boundary

■ final products □ intermediate products

Raw material acquisition - Production - Distribution

- Use & maintenance - End-of-Life

Main specifications of the product

Model name: HL-EX415DW

- Printer (EP method)
- Monochrome
- Printing speed: 52ppm (Letter)
- Maximum document size: A4, Letter
- Print/Automatic duplex printing
- Product weight: 13.4kg Packaging etc.: 3.2kg
- Wired/Wireless LAN

* This product is for North America.

Company Information

Brother Industries, Ltd.

TEL: 81-52-824-2511 (Representative)

FAX: 81-52-824-5177

<https://www.brother-usa.com/>

Registration#	JR-AI-23112E
PCR number	PA-590000-AI-07
PCR name	Imaging input and/or output equipment
Publication date	10/11/2023
Verification date	9/26/2023
Verification method	System certificaion
Verification#	JV-AI-23112E
Expiration date	9/25/2028
PCR review was conducted by:	
Approval date	04/24/2023
PCR review panel chair	Masayuki Kanzaki Sustainable Management Promotion Organization

Third party verifier*

Yasuo Koseki

Independent verification of data & declaration in accordance with ISO14025

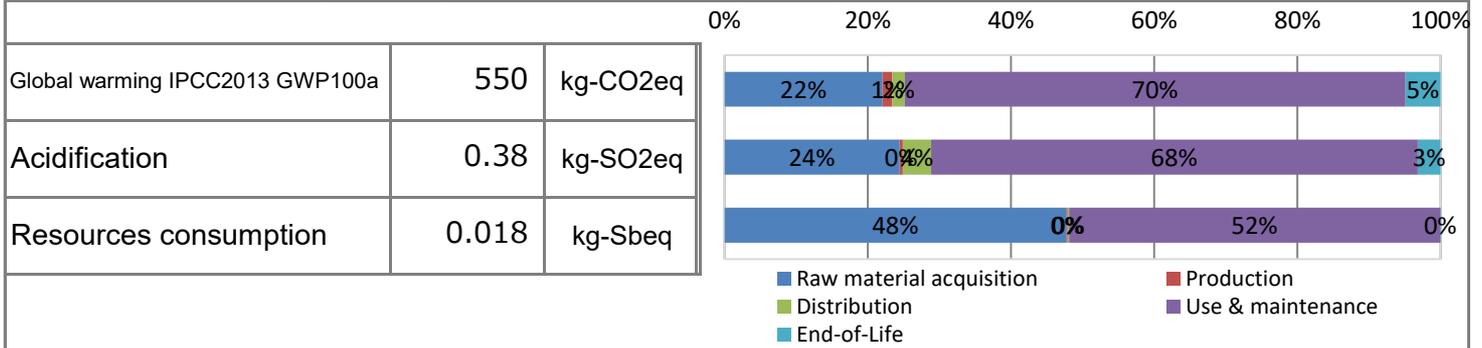
internal external

*Auditor's name is stated if system certification has been performed.

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1. Results of life cycle impact assessment (LCIA)



Parameter	stage	Unit	Total	Raw material acquisition	Production	Distribution	Use & maintenance	End-of-Life
Global warming IPCC2013 GWP100a		kg-CO ₂ eq	5.5E+02	1.2E+02	7.3E+00	9.8E+00	3.8E+02	2.7E+01
Acidification		kg-SO ₂ eq	3.8E-01	9.4E-02	1.7E-03	1.5E-02	2.6E-01	1.2E-02
Resources consumption		kg-Sbeq	1.8E-02	8.7E-03	2.4E-05	4.1E-05	9.5E-03	6.9E-06

2. Life cycle inventory analysis (LCI)

Parameter	Unit
Non-renewable material resources	1.6E+01 kg
Non-renewable energy resources	8.2E+03 MJ
Renewable material resources	7.9E+01 kg
Renewable primary energy	2.0E+02 MJ
Consumption of freshwater	5.2E-01 m ³

3. Material composition

Material	Unit
Steel	3.4E+00 kg
SUS	7.5E-02 kg
Aluminium	1.1E-01 kg
Other metal	0.0E+00 kg
Plastic	8.4E+00 kg
Rubber	1.5E-01 kg
Glass	4.1E-02 kg
Paper and Wood	2.9E+00 kg
Circuit board	6.5E-01 kg
Othres	9.0E-01 kg

5. Additional explanation

Calculation method for usage stage (scenario) : Printer (EP method), Expected use period: 5 years, Assumed usage: 403,200 sheets, Print measuring method (pattern): ISO/IEC 19798, Printing paper is not included in the environmental impact, The applied Energy Star program version is 3.0, This product is for North America.

6-1. Supplementary environmental information

This product and main compornents are produced in ISO 14001 certified factories.

7. Assumptions of secondary data used

Inventory Database: IDEA v2.1.3, and registered data of Japan EPD Program by SuMPO, JLCA data v1.10 are used.

8. Remarks

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- For data quantification, please refer to PCR and Rules on quantification and declaration.
- Comparative assertion is permitted only when Rules on quantification and declaration are satisfied.
(Reference URL : <https://ecoleaf-label.jp/regulation/>)