



EcoLeaf

Type III Environmental Declaration (EPD)

Registration number : JR-AI-22226E

Japan EPD Program by SuMPO

Sustainable Management Promotion Organization

2-1, Kaji-cho 2 chome, Chiyoda-ku, Tokyo Japan

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

**TOSHIBA**

Toshiba Tec Corporation

Multifunctional Digital Color Systems

**e-STUDIO4525AC**



### 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: e-STUDIO4525AC

■ Digital Color MFD (EP Type)

■ Print speed: Color 45ppm (LT)

Monochrome 45ppm (LT)

■ Maximum paper size: LD

■ Automatic duplex printing

### Company Information

Toshiba Tec Corporation

Engineering Planning Group

Engineering Planning Dept.

TEL: +81-55-976-7011

<https://www.toshibatec.co.jp/>

Registration#	JR-AI-22226E
PCR number	PA-590000-AI-04
PCR name	Imaging input and/or output equipment
Publication date	12/19/2022
Verification date	11/25/2022
Verification method	Product-by-product
Verification#	JV-AI-22226
Expiration date	11/24/2027
PCR review was conducted by:	
Approval date	4/1/2022
PCR review panel chair	Masayuki Kanzaki (Sustainable Management Promotion Organization)

### Third party verifier\*

Hiroyuki Nakamura

Independent verification of data & declaration in accordance with ISO14025

internal

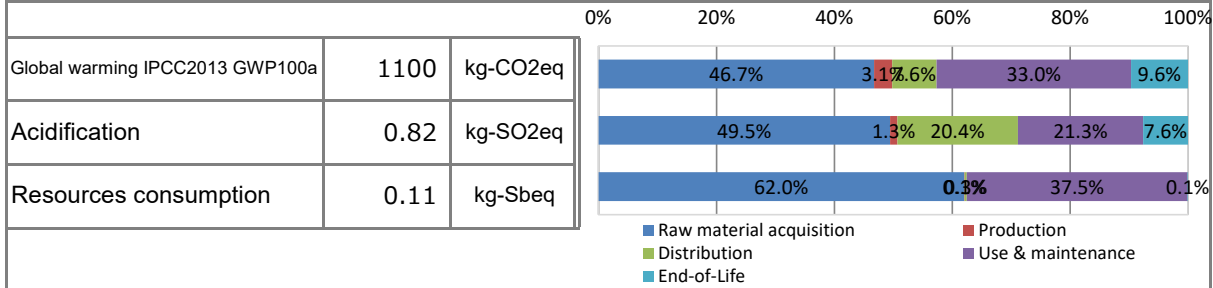
external

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

Registration number : JR-AI-22226E



**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 <sub>2</sub> eq	1.1E+03	5.3E+02	3.5E+01	8.6E+01	3.8E+02	1.1E+02
Ozone layer destruction		kg-CFC-11eq	7.8E-05	5.2E-05	3.2E-08	6.5E-10	2.5E-05	1.3E-06
Acidification		kg-SO <sub>2</sub> eq	8.2E-01	4.0E-01	1.0E-02	1.7E-01	1.7E-01	6.2E-02
Urban area air pollution		kg-SO <sub>2</sub> eq	4.8E-01	2.8E-01	5.5E-03	6.4E-02	1.0E-01	2.6E-02
Photochemical ozone		kg-C <sub>2</sub> H <sub>4</sub> eq	8.8E-03	6.2E-03	6.3E-05	3.4E-04	2.0E-03	2.1E-04
Toxic chemicals(cancer)		kg-C <sub>6</sub> H <sub>6</sub> eq	1.5E-01	1.4E-01	2.7E-06	2.6E-08	9.0E-03	3.2E-05
Toxic chemicals(chronic disease)		kg-C <sub>6</sub> H <sub>6</sub> eq	8.2E-04	7.3E-04	4.0E-07	3.8E-09	7.8E-05	4.6E-06
Aquatic toxicity		kg-C <sub>6</sub> H <sub>6</sub> eq	1.0E+00	8.9E-01	6.1E-04	5.8E-06	1.1E-01	7.1E-03
Biological toxicity		kg-C <sub>6</sub> H <sub>6</sub> eq	4.4E+01	4.0E+01	1.5E-02	1.4E-04	3.4E+00	1.7E-01
Eutrophication		kg-PO <sub>4</sub> <sup>3-</sup> eq	3.9E-03	4.3E-05	2.9E-03	5.7E-13	8.0E-04	1.9E-04
Land use(Occupation)		m <sup>2</sup> /year	4.3E+01	3.3E+01	1.7E-01	4.1E+00	5.3E+00	3.2E-01
Land use(Transformation)		m <sup>2</sup>	6.4E-01	4.6E-01	3.3E-03	8.2E-02	9.4E-02	6.4E-03
Resources consumption		kg-Sbeq	1.1E-01	6.6E-02	1.0E-04	3.6E-04	4.0E-02	7.2E-05

**2. Life cycle inventory analysis (LCI)**

項目	値	単位
Non-renewable material resources	6.1E+01	kg
Non-renewable energy resources	1.8E+04	MJ
Renewable material resources	1.4E+02	kg
Renewable primary energy	3.6E+02	MJ

**3. Material composition**

Material	値	Unit
Ordinary steel	4.0E+01	kg
SUS	7.2E-01	kg
Other metals	1.8E+00	kg
Aluminium	5.1E-01	kg
Glass	3.1E+00	kg
Thermoplastic resin	2.7E+01	kg
Thermosetting resin	2.1E-01	kg
Rubber	1.0E+00	kg
Paper	8.6E+00	kg
Wood	5.3E+00	kg
Circuit Board	2.3E+00	kg
Medium-sized motor	2.8E+00	kg



**5. Additional explanation**

- Product destination: United states of america
  - Calculation method of use stage (scenario)
    - Expected usage period: five years
    - Estimated number of use: 297,600 sheets\*
    - Print measuring method (pattern): ISO/IEC 19798
    - Automatic Document Feeder and Paper Feed Pedestal is optional,its impact is not included.
    - Inventory of the print paper is not included
  - Products selected in the scenario used for Inventory
    - Multifunction device (EP type)
- \* Electric power in the use and maintenance stage is evaluated using TEC value according to International ENERGY STAR program Version3.1 and the public electric-power-consumption-rate in the United States.  
(32 jobs/day) x (31 sheets/job) x (1/4) x 5days x 4weeks x12months x5years = 297,600 sheets

**6-1. Supplementary environmental information**

- This product is produced in our ISO 14001 certified factories.
- ENERGY STAR®Ver.3.1 qualified.
- EU RoHS2 compliant.

**7. Assumptions of secondary data used**

- Inventory Database:LCI Database IDEA V2.1.3,Japan EPD Program by SuMPO registered data V1.10.

**8. Remarks**

-

- 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/>)