ENVIRONMENTAL PRODUCT DECLARATION

# FlexScan® EV2360

LCD MONITOR


The FlexScan EV2360, a 22.5-inch LCD monitor featuring a frameless design for business environments such as trading rooms, back offices, and control rooms.

The EIZO Group is aware that one of our key responsibilities is to conduct business taking the environment into consideration. We strive to contribute to the sustainable development of our society by being conscious of the impact our business has on the environment.

In product development, we endeavor to meet the legal requirement and standards as well as to enhance the environmentally sound quality of our products including compliance with the legal requirement and standards, industry trends and social conditions.

In addition, we conduct product environmental assessments in accordance with our own Environmental Compliance Standards to measure the environmental soundness of products.

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# ENVIRONMENTAL PRODUCT DECLARATION

**FlexScan EV2360**
LCD Monitor

**According to ISO 14025**

This declaration is an environmental product declaration (EPD) in accordance with ISO 14025. EPDs rely on Life Cycle Assessment (LCA) to provide information on a number of environmental impacts of products over their life cycle. Exclusions: EPDs do not indicate that any environmental or social performance benchmarks are met, and there may be impacts that they do not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. EPDs can complement but cannot replace tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc. Accuracy of Results: EPDs regularly rely on estimations of impacts, and the level of accuracy in estimation of effect differs for any particular product line and reported impact. Comparability: EPDs are not comparative assertions and are either not comparable or have limited comparability when they cover different life cycle stages, are based on different product category rules or are missing relevant environmental impacts. EPDs from different programs may not be comparable.

| | | |
|---|---|---|
| PROGRAM OPERATOR | UL Solutions | www.spot.ul.com |
| DECLARATION HOLDER | EIZO | |
| DECLARATION NUMBER | 4791610038.101.1 | |
| DECLARED PRODUCT | FlexScan EV2360 | |
| REFERENCE PCR | EPD PCR 019 Monitor 2024 KEITI | |
| DATE OF ISSUE | March 18th , 2025 | |
| PERIOD OF VALIDITY | 5 Years | |
| CONTENTS OF THE DECLARATION | Product definition and information about building physics<br>Information about basic material and the material's origin<br>Description of the product's manufacture<br>Indication of product processing<br>Information about the in-use conditions<br>Life cycle assessment results<br>Testing results and verifications | |
| The PCR review was conducted by: | KEITI<br>PCR Review Panel<br>keiti.re.kr | |
| This declaration was independently verified in accordance with ISO 14025 by Underwriters Laboratories<br>☐ INTERNAL ☒ EXTERNAL | Cooper McCollum, UL Solutions | |
| This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by: | James Mellentine, Thrive ESG | |

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## Product information

### Product description

The product declared is a 22.5-inch LCD Monitor “FlexScan EV2360” featuring a frameless design for business environments such as trading rooms, back offices, and control rooms.

### Application

This product is suited to general purposes like creating documents, viewing multimedia content.

### Product Environmental Information

EV2360 was certified EPA ENERGY STAR Ver.8.0, TCO Certified Generation 9, EPEAT Silver with Climate+, TUV/Ergonomics, TUV/Low blue light content, TUV/Flicker Free, TUV/GS, RCM, CE, UKCA, CB, cTUVus, FCC-B, CAN ICES-3 (B), TUV/S, PSE, VCCI-B, RoHS, WEEE, China RoHS, CCC.

### Company Environmental Activities

Although global environmental standards such as TCO Certified and EPEAT are not legal regulations, EIZO has actively participated and adapted from the beginning of the standard to improve the environmental performance of our products.

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## Technical Data

The below table shows the decpription of product technical specification.

Table 1: Technical specification

| | | |
|---|---|---|
| Panel | Type | IPS |
| | Backlight | LED |
| | Size | 22.5" / 57.2 cm |
| | Native Resolution | 1920 x 1200 (16:10 aspect ratio) |
| | Viewable Image Size (H x V) | 488.2 x 297.2 mm |
| | Pixel Pitch | 0.254 x 0.248 mm |
| | Display Colors | 16.77 million |
| | Viewing Angles (H / V, typical) | 178° / 178° |
| | Brightness (typical) | 250 cd/m2 |
| | Contrast Ratio (typical) | 1000:1 |
| | Response Time (typical) | 5 ms (gray-to-gray) |
| Video Signals | Input Terminals | DisplayPort (HDCP 1.3), HDMI (HDCP 1.4), D-Sub min 15pin |
| | Digital Scanning Frequency (H / V) | DisplayPort: 31 - 75.5 kHz / 59 - 61 Hz |
| | | HDMI: 31 - 75.5 kHz / 49 - 51 Hz, 59 - 61 Hz |
| | | 31 - 75.5 kHz / 59 - 61 Hz |
| USB | Upstream | USB 3.1 Gen 1: Type-B |
| | Downstream | USB 3.1 Gen 1: Type-A x 2 |
| Audio | Speakers | 1.0 W +1.0 W |
| | Input Terminals | Stereo mini jack, DisplayPort, HDMI |
| | Output Terminals | Headphones (Stereo mini jack) |
| Power | Power Requirements | AC 100 - 240 V, 50 / 60 Hz |
| | Typical Power Consumption | 11 W |
| | Maximum Power Consumption | 37 W |
| | Power Save Mode | 0.5 W or less |
| Physical | Dimensions (Landscape, W x H x D) | 499 x 333.9 - 473.9 x 233 mm |

| | | |
|---|---|---|
| Specifications | Net Weight | 5.5 kg |
| Environmental Requirements | Operating Temperature | 5 - 35 °C |
| | Operating Humidity (R.H., non-condensing) | 20 - 80 % |

## Material Content

The below tables show the weight composition by compnent or material in a product and package. Less than 5% of cumulative mass of the product/packagge are excluded.

This information is for Stage Prior to Manufacturing - Collecting Raw Materials.

Table 2: Components/Materials in a Product

| Component | Weight (%) | Notes |
|---|---|---|
| UNIT-LCD | 28.9 | Inclusion |
| ASSY-STAND-UNIT | 20.8 | Inclusion |
| ASSY-BASE-UNIT | 12.8 | Inclusion |
| MLD-REAR-COVER | 8.9 | Inclusion |
| ASSY-PCB-POWER | 7.3 | Inclusion |
| CORD-AC | 3.6 | Inclusion |
| MTL-MAIN-SHIELD | 2.5 | Inclusion |
| MLD-MID-FRAME | 2.3 | Inclusion |
| HDMI-CABLE | 2.0 | Inclusion |
| USB-CABLE | 1.9 | Inclusion |
| DisplayPort-CABLE | 1.9 | Inclusion |
| MTL-VESA-PLATE | 1.5 | Inclusion |
| ASSY-PCB-MAIN | 1.4 | Inclusion |
| Manuals | 1.8 | Exclusion |
| Plastic moldings | 0.7 | Exclusion |
| Metal Materials | 0.6 | Exclusion |
| Harnesses | 0.4 | Exclusion |

| | | |
|---|---|---|
| Sheets | 0.2 | Exclusion |
| Others | 0.2 | Exclusion |
| Speakers | 0.2 | Exclusion |
| Screws | 0.1 | Exclusion |
| Printings | 0.1 | Exclusion |
| Gaskets | 0.0 | Exclusion |

Table 3: Components/Materials in a Package

| Component | Weight (%) | Notes |
|---|---|---|
| PACKING-CASE | 77 | Inclusion |
| PACKING-CUSHION | 21 | Inclusion |
| SHEET | 1.8 | Exclusion |
| PACKING-BAG | 0.8 | Exclusion |

## Manufacturing Location

Table 4: Manufacturing Location

| Factory | Address |
|---|---|
| EIZO Corporation | 153 Shimokashiwano, Hakusan, Ishikawa 924-8566 Japan |
| EIZO MS Corporation (Unit board) | 37-9-Re Jike, Hakui, Ishikawa 925-8566 Japan |

The manufacturing process including assembling, inspection, and packaging at these factories are covered at Stage of Manufacturing – Manufacturing. And the input of energies and output of emissions/wastes through the manufacturing processes are also covered at Stage of Manufacturing – Manufacturing.

## Transportation

The below table show the transportation path from EIZO manufacturing locatin to their customer sites.

This information is for Stage of Manufacturing – Distribution.

Table 5: Trasportation information from a factory to a customer site

| Path | Geographical information | | Volume (ton) | Distance (km) |
|---|---|---|---|---|
| | Departure | Arrival | | |
| 10t truck | Hakusan, Ishikawa | Tokyo | 24.4 | 600 |
| 4t truck | Hakusan, Ishikawa | Tokyo | 34.2 | 600 |
| 10t truck | Hakusan, Ishikawa | Osaka | 5.3 | 450 |
| 4t truck | Hakusan, Ishikawa | Osaka | 10.0 | 450 |
| 10t truck | Hakusan, Ishikawa | Nagoya | 3.5 | 400 |
| 4t truck | Hakusan, Ishikawa | Nagoya | 3.9 | 400 |
| 10t truck | Hakusan, Ishikawa | Fukuoka | 8.2 | 900 |
| 4t truck | Hakusan, Ishikawa | Fukuoka | 0.5 | 900 |

## Use Phase

In Use phase, the total power consumption during the lifetime was calculated according to EPD PCR 019:2024(00):202402, Monitor as below.

Table 6: Usage Condition

| Usage time (hours/day) | | | Lifetime (year) | Usage day (days/year) |
|---|---|---|---|---|
| On mode | Sleep mode | Off mode | | |
| 9.6 (40%) | 10.8 (45%) | 3.6 (15%) | 4 | 365 |

| Power consumption (W) | | | Total Power Consumption (kWh) |
|---|---|---|---|
| On mode | Sleep mode | Off mode | |
| 11 W | 0.5 W | 0.5 W | 164.7 kWh |

## Disposal Stage

The below table show the waste treatment by material according to the data from Japan Plastic Waste Management Instituten, Association for Electric Home Appliances, Paper Recycling Promotion Center.

Table 7: Disposal treatment

| Material | Weight (%) | Recycle | Incineration | Landfill |
|---|---|---|---|---|
| Plastic | 32.9 | 86% | 8% | 6% |
| Iron | 41.8 | 86% | – | 14% |
| Paper | 17.0 | 95% | 5% | – |
| Glass | 5.3 | – | – | 100% |
| Aluminum | 0.5 | 86% | – | 14% |

| | | | | |
|---|---|---|---|---|
| Copper | 1.3 | 86% | – | 14% |
| Other material | 0.9 | – | – | 100% |
| Other metal | 0.3 | – | – | 100% |

## LCA Rules

### Functional Unit

The functional unit is defined as one unit of 22.5-inch LCD monitor and using it daily for 4 years.

### System Boundary

The system boundary includes all life cycle stages includes Collecting Raw Materials, Manufacturing, Distribution, Use and Disposal. This is a cradle-to-grave study and this LCA study is not comparative assertion.

Table 8: System Boundary

| | | | |
|---|---|---|---|
| Stage Prior to Manufacturing | Collecting Raw Materials | A1 | X |
| Stage of Manufacturing | Manufacturing | A2 | X |
| | Distribution | A3 | X |
| Stage of Use | Use | B | X |
| Stage of Scrapping | Disposal | C | X |

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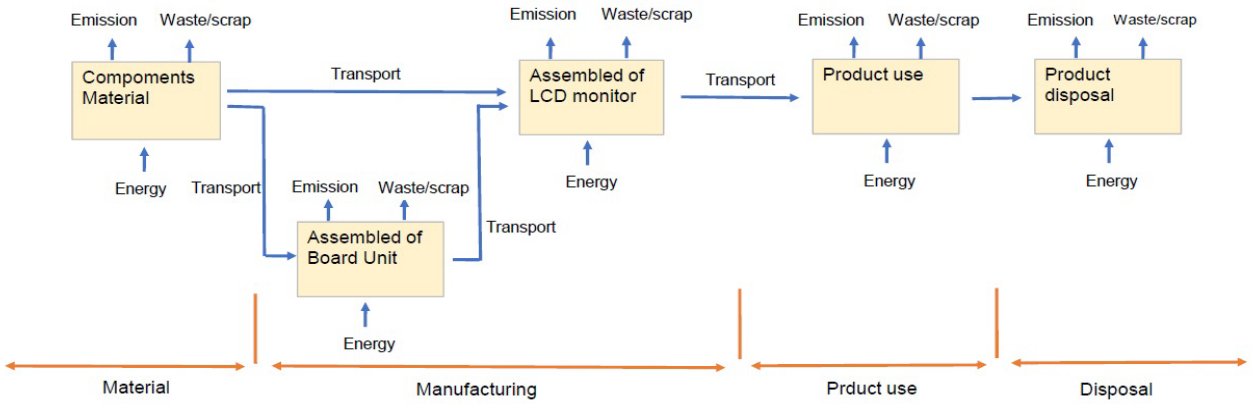


## Cut-off Rules

Material Inventory survey was conducted on 95 wt. % of material in each Product / Package.Disposal stage survey was conducted on 95 wt. % of material in each Product / Package.

## LCA Data

For Life Cycle Assessment, SimaPro release 9 software system has been used. Ecoinvent 3 datasets have been taken from SimaPro release 9 software database.

EIZO collected the below data as the foreground data.

- Material inventory for Stage Prior to Manufacturing - Collecting Raw Materials
- Energy input for Stage of Manufacturing – Manufacturing
- Transportation volume and distance for Stage of Manufacturing – Distribution
- Power consumption for Stage of Use – Use
- Disposed materials for Stage of Scrapping – Disposal

The background data has been utilized at all stages according to the collected foreground data.

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## Data Quality

All foreground data were collected at Utsunomiya Plant Between April 2022 and March 2023 (One year average data).

Background data were used from ECOINVENT 3 database (The data version is 2022).

## Allocation

The electric power used in the factory for manufacturing an EV2360 was calculated by allocating EV2360 weight from the total weight of the monitor produced in one year (monitor mass x number of production) of this factory.

The electric power used in the PCB board factory for manufacturing an EV2360 PCB board was allocated from the production ratio of small, medium, and large monitors for one year and its representative mass of the PCB board.

## Assumption and Limitation

### Assumption

The on-mode power consumption when using this monitor was used the power consumption value of EIZO's Typical Power Consumption specifications.

For transportation, EIZO picked up four major cities, Tokyo, Osaka, Nagoya and Fukuoka.

Glass and other materials/metals were assumed to be 100% landfilled.

### Limitation

The study results are limited to a specific use scenario and real-world use of the monitor which may significantly change the result. Materials are represented by industry average data, not primary supplier data. To the extent that material/components suppliers may not be average, the results might significantly change.

## Life Cycle Assessment Results

The LCA was calculated by using CML and developed by the Institute of Environmental Sciences Leiden University, the Netherlands. https://www.universiteitleiden.nl/en/science/environmental-sciences/tools-and-data#CML_IA

LCIA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks.

Table 9: Life Cycle Assessment Results

| Environment Impact | | | |
|---|---|---|---|
| Impact Category | Units | A1-C | Model |
| Global warming (GWP) | kg-$CO_2$eq | 2.92E+02 | IPCC |
| Ozone depletion (ODP) | kg-CFC-11eq | 8.89E-06 | WMO |
| Eutrophication (EP) | kg$PO_4^3$-eq | 1.28E+00 | Heijungs et al. |
| Acidification potential (AP) | kg-$SO_2$eq | 3.63E+00 | Hauschild and Wenzel |
| Photo Chemical Ozone Creation (POCP) | kg-$C_2H_4$eq | 1.43E-01 | Jenkin and Hayman |
| Abiotic Depletion Potential (ADP) | Kg-Sbeq | 2.29E+00 | Guinee et al. |

| Impact Category | Units | Raw Material A-1 | Manufacturing A-2 | Transportation A-3 | Use B | Disposal C |
|---|---|---|---|---|---|---|
| GWP | kg-$CO_2$eq | 1.86E+02 | 1.65E+00 | 1.80E+00 | 1.01E+02 | 1.16E+00 |
| ODP | kg-CFC-11eq | 7.32E-06 | 2.19E-08 | 2.39E-08 | 1.52E-06 | 3.05E-09 |
| EP | kg$PO_4^{3-}$eq | 1.17E+00 | 1.55E-03 | 9.28E-04 | 1.07E-01 | 2.48E-04 |
| AP | kg-$SO_2$eq | 3.16E+00 | 6.81E-03 | 3.85E-03 | 4.57E-01 | 5.11E-04 |
| POCP | kg-$C_2H_4$eq | 1.24E-01 | 2.85E-04 | 2.68E-04 | 1.90E-02 | 3.02E-05 |
| ADP | Kg-Sbeq | 1.53E+00 | 1.19E-02 | 1.24E-02 | 7.31E-01 | 1.27E-03 |

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## Interpretation

### Completeness

Since EIZO has made a 5% cut-off, the raw material should be an additional 5%. In the GWP impact index, Row material accounts for 63.8% of total emissions. Therefore, the total impact will increase by 3.2%.

The 5% cut off materials are small parts, sheets and labels made of general plastics, and copper harnesses, paper prints, metal, screws, etc and the same raw materials are also included in another 95% materials.

The 5% materials do not include anything that has a major impact on the environment.

### Sensitivity

When the brightness of On-mode, which may vary as data, is doubled, it will increase by 4.6W in actual measurement.

When On-mode increases by 4.6W, Total Power Consumption increases from 164.7kWh to 229.2kWh. This corresponds to an increase of 39.7kg in CO2 emissions. In the GWP impact, Total Power Consumption (use phase) accounts for 34.6% of the total, so the total GWP impact increases by 13.6%

### Consistency

The impact index of the LCD panel accounts for 59.3% of the raw material, and 37.8% of the total life cycle impact index. If the impact index of the LCD panel increases by 10% due to errors, the total impact will increase by 3.8%. This corresponds to an increase of 11.1kg in CO2 emissions.

### Representativeness

The materials and processes of this product are very common. So, most of selected data represents this model well. However, there are several kinds of cables/connectors in this product and we used only the below three data. These cables/connectors consist of 8.4% total product weight. This might have some small variances.

- Cable, three-conductor cable
- Electric connector, wire clamp
- Electric connector, peripheral type buss

There is a stand-free version as another form of EV2360. In the case of the version without stand, the impact index for the no stand is reduced.

From the GWP impact, CO2 emissions from the stand are 3.2% of the raw material, which is 6.0kg. The total impact without a stand is only decrease of 2.1%, and it can be considered that the standard product with stand can be regarded as representative data.

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## References

ISO 14025/DIN EN /ISO 14025:201110: Environmental labels and declarations - Type III environmental declarations - Principles and procedures

ISO 14040: 2006 - Environmental management – Life cycle assessment – Principles and framework

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

EPD PCR 019:2024(00):202402, Monitor

SimaPro 9.0 / Ecoinvent 3:

CML 2001 (all impact categories) V2.05 / the Netherlands, 1997