# FlexScan<sup>®</sup> EV2720S

LCD MONITOR





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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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. <u>Exclusions</u>: 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. <u>Accuracy of Results</u>: 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. <u>Comparability</u>: 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	4791732613.101.1				
DECLARED PRODUCT	FlexScan EV2720S				
REFERENCE PCR	EPD PCR 019 Monitor 2024 KEITI				
DATE OF ISSUE	May 2 <sup>nd</sup> , 2025				
PERIOD OF VALIDITY	5 Years				
	Product definition and information at	oout building physics			
	Information about basic material and	the material's origin			
	Description of the product's manufacture				
CONTENTS OF THE DECLARATION	Indication of product processing				
DECLARATION	Information about the in-use conditions				
	Life cycle assessment results				
	Testing results and verifications				
The PCR review was conduct	ed bv:	KEITI			
	J.	PCR Review Panel			
		Keiti.re.kr			
This declaration was independently verified in accordance with ISO 14025 by Underwriters Laboratories		Loffer Mour			
☐ INTERNAL ☐ EXTERNAL		Cooper McCollum, UL Solutions			
This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:		Jane A. Nellect.			
		James Mellentine, Thrive ÆSG			



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## **Product information**

## **Product description**

The 27-inch EV2720S is a WQHD (2560 x 1440 pixel) monitor equipped with USB Type-C for improving productivity and comfort at the office or at home.



## **Application**

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

#### **Product Environmental Information**

EV2720S was certified EPA ENERGY STAR Ver.8.0, TCO Certified Generation 10, EPEAT Gold with Climate+, TUV/Ergonomie, TUV/GS, RCM, CE, UKCA, CB, cTUVus, FCC-B, CAN ICES-3 (B), TUV/S, PSE, VCCI-B, RoHS, WEEE.

#### **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

	T	IDO
	Туре	IPS
	Backlight	LED
	Size	27" / 68.5 cm
	Native Resolution	2560 x 1440
	Viewable Image Size (H x V)	596.7 x 335.7 mm
Panel	Pixel Pitch	0.233 x 0.233 mm
	Display Colors	16.77 million
	Viewing Angles (H / V, typical)	178° / 178°
	Brightness (typical)	350 cd/m2
	Contrast Ratio (typical)	1500:1
	Response Time (typical)	5 ms (gray-to-gray)
Video Signals	Input Terminals	USB-C (DP Alt Mode, HDCP 1.3), DisplayPort (HDCP 1.3), HDMI (HDCP 1.4)
		USB-C: 31 - 89 kHz / 59 - 61 Hz
	Digital Scanning Frequency (H / V)	DisplayPort: 31 - 89 kHz / 59 - 61 Hz
		HDMI: 31 - 89 kHz / 49 - 61 Hz
LIOD	Upstream	USB 5Gbps: Type-C
USB	Downstream	(DP Alt Mode, PD max 70 W)
	Speakers	1.0 W + 1.0 W
Audio	Input Terminals	USB Type-C, DisplayPort, HDMI
	Output Terminals	Headphones (Stereo mini jack)
	Power Requirements	AC 100 - 240 V, 50 / 60 Hz
_	Typical Power Consumption	14 W
Power	Maximum Power Consumption	149 W
	Power Save Mode / Standby Mode	0.4 W typ. / 0.3 W typ.





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Physical	Dimensions (Landscape, W x H x D)	611.7 x 376.3 - 545.3 x 230 mm
Specifications	Net Weight	8.5 kg
Environmental	Operating Temperature	5 - 35 °C
Requirements	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/Material	Weight (%)	Notes
UNIT-LCD	32.6%	Inclusion
ASSY-STAND-UNIT	25.5%	Inclusion
ASSY-PCB-POWER	9.7%	Inclusion
MLD-REAR-COVER	7.8%	Inclusion
ASSY-PCB-MAIN	7.3%	Inclusion
ASSY-BASE-UNIT	5.2%	Inclusion
MLD-MID-COVER	3.9%	Inclusion
CORD-AC	2.6%	Inclusion
MTL-VESA-PLATE	1.2%	Inclusion
CABLE	1.2%	Exclusion
MTL-MT-COVER	0.9%	Exclusion
MTL-BOTTOM-PLATE	0.5%	Exclusion
ASSY-FRONT-BEZEL	0.3%	Exclusion





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Component/Material	Weight (%)	Notes
SUG-EV2720S	0.3%	Exclusion
АН	0.2%	Exclusion
АН	0.1%	Exclusion
SPEAKER	0.1%	Exclusion
ASSY-PCB-DRIVER	0.1%	Exclusion
Others	0.5%	Exclusion

Table 3: Components/Materials in a Package

Component/Material	Weight (%)	Notes
CARTON-27W-18	43.4%	Inclusion
PAD-27W-2-B-CB	21.8%	Inclusion
CUSHION-27W-18-T	21.7%	Inclusion
TOP-PAD	6.1%	Inclusion
MID-PAD	5.0%	Inclusion
Others	2.0%	Exclusion





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# **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 info	Volume	Distance	
raui	Departure	Arrival	(ton)	(km)
10t truck	Hakusan, Ishikawa	Tokyo	70.91	600
4t truck	Hakusan, Ishikawa	Tokyo	116.74	600
10t truck	Hakusan, Ishikawa	Osaka	18.72	450
4t truck	Hakusan, Ishikawa	Osaka	33.21	450
10t truck	Hakusan, Ishikawa	Nagoya	13.09	400
4t truck	Hakusan, Ishikawa	Nagoya	11.40	400
10t truck	Hakusan, Ishikawa	Fukuoka	34.63	900
4t truck	Hakusan, Ishikawa	Fukuoka	1.30	900





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## **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	Usage day
On mode	Sleep mode	Off mode	(year)	(days/year)
9.6 (40%)	10.8 (45%)	3.6 (15%)	4	365

Power consumption (W)			Total Power Consumption	
On mode	Sleep mode	Off mode	(kWh)	
14 W	0.4 W	0 W	202.5.0 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	17.7%	86%	8%	6%
Iron	37.0%	86%	-	14%
Paper	27.8%	95%	5%	-
Glass	4.9%	-	-	100%
Aluminum	4.0%	86%	-	14%





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Copper	1.6%	86%	-	14%
Other material	6.6%	-	-	100%
Other metal	0.4%	-	-	100%

# **LCA Rules**

#### **Functional Unit**

The functional unit is defined as one unit of 27-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

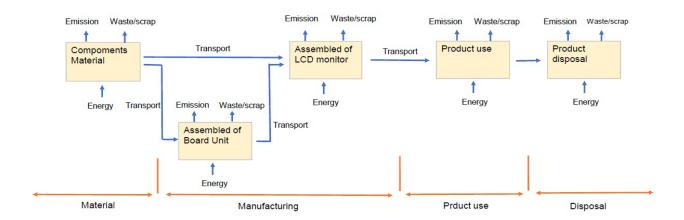
Stage Prior to Manufacturing	Collecting Raw Materials	A1	Х
Stage of Manufacturing	Manufacturing	A2	Х
	Distribution	А3	X
Stage of Use	Use	В	Х
Stage of Scrapping Disposal		С	Х





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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 9.5 software system has been used. Ecoinvent 3 datasets have been taken from SimaPro release 9.5 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 Hakusan and Hakui 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 EV2720S was calculated by allocating EV2720S 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 EV2720S 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.





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# **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-CO₂eq	3.81E+02	IPCC				
Ozone depletion (ODP)	kg-CFC-11eq	1.33E-05	WMO				
Eutrophication (EP)	kgPO <sub>4</sub> ³-eq	1.20E+00	Heijungs et al.				
Acidification potential (AP)	kg-SO₂eq	2.73E+00	Hauschild and Wenzel				
Photo Chemical Ozone Creation (POCP)	kg-C₂H₄eq	1.24E-01	Jenkin and Hayman				
Abiotic Depletion Potential (ADP)	Kg-Sbeq	2.87E+00	Guinee et al.				

Impact Category	Units	Raw Material A-1	Manufacturing A-2	Transportation A-3	Use B	Disposal C
GWP	kg-CO₂eq	2.49E+02	2.76E+00	3.04E+00	1.25E+02	1.32E+00
ODP	kg-CFC-11eq	1.14E-05	3.65E-08	4.03E-08	1.88E-06	6.62E-09
EP	kgPO₄³-eq	1.07E+00	2.58E-03	1.56E-03	1.32E-01	6.35E-04
AP	kg-SO₂eq	2.15E+00	1.14E-02	6.48E-03	5.62E-01	1.22E-03
POCP	kg-C₂H₄eq	1.00E-01	4.76E-04	4.50E-04	2.34E-02	6.99E-05
ADP	Kg-Sbeq	1.93E+00	1.99E-02	2.08E-02	8.98E-01	2.85E-03





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## Interpretation

#### **Completeness**

Since we have made a 5% cut-off, the raw material should be an additional 5%. In the GWP impact index, Row material accounts for 65.4% of total emissions. Therefore, the total impact will increase by 3.3%.

The materials within 5% are small parts, sheets and labels made of general plastics, and copper harnesses, paper prints, metal, screws, etc.

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 4W in actual measurement.

When On-mode increases by 4W, Total Power Consumption increases from 202.5kWh to 258.6kWh. This corresponds to an increase of 34.5kg in CO2 emissions. In the GWP impact, Total Power Consumption (use phase) accounts for 32.7% of the total, so the total GWP impact increases by 9.1%.

#### Consistency

The impact index of the LCD panel accounts for 72.3% of the raw material, and 47.3% 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 4.7%. This corresponds to an increase of 18.0kg 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 3.4% 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 EV2720S. 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 3.7% of the raw material, which is 9.2kg. The total impact without a stand is only decrease of 2.4%, 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 9.5 / Ecoinvent 3:

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

