

ENVIRONMENTAL PERFORMANCE REPORT

LG Electronics evaluates the environmental aspects of the products, and shares the results through the Environmental Performance Report to the customers	Model Information	
	Model	Evaluation Date
	GSXV90MCAE	04-Mar-2024
	Product Type	
	Refrigerator	

ENVIRONMENTAL PERFORMANCE

LG Electronics evaluate the environmental aspect with following 5 categories

We evaluate each environmental aspect by model / product group / company level according to the characteristics of each aspect.

And you can find the evaluation result in the following pages.

* There can be changes in the environmental aspects and categories. If you want to know more information, please visit here.

<https://www.lg.com/global/sustainability/environment/greener-products/environmental-declarations>

1

Material efficiency



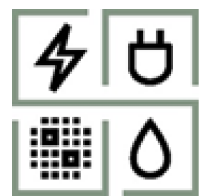
2

Carbon emission



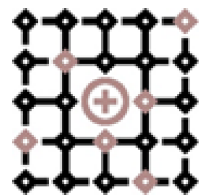
3

Hazardous substance



4

Responsible supply chain



5

Corporate Social Responsibility





Material Efficiency



889.2 g

Post consumer recycled plastics

889.2g of post consumer recycled material is applied in the components of GSXV90MCAE

If you want to know more information, please visit here.

<https://www.lg.com/global/environmental-strategic-task-2-1>

* There are various sources of recycled plastics, however, the recycled plastics in this article includes the post consumer recycled plastics only.

Plastics Material Identification

Identifying plastics materials on parts over 25g

Separating plastics by the specific types requires a lot of efforts. If there is a plastics material identification on the easily removable parts, it can improve the efficiency of the recycling process. We mark the plastics material identification on the parts over 25g in GSXV90MCAE

* Related standard : ISO11469:2016 and ISO 1043:2011 (part 1 and 4)

442,315 Ton

Global e-waste take-back in 2021

We are implementing policies aimed at ensuring compliance with regulations on the collection and disposal of discarded home appliances in different parts of the world, while also continuing our efforts to contribute to the creation of a better future environment by building infrastructure for waste collection. In order to achieve a cumulative collection of 8 million tons of e-waste by 2030, we are conducting various activities to collect discarded home appliances such as increasing the recycling rate of collected products and designing products in consideration of the proportionate use of raw materials and their recycling potential.

If you want to know more information, please visit here.

<https://www.lg.com/global/environmental-strategic-task-2-3>

* e-Waste take-back : Collection/Logistics/Recycle of e-waste

* Aggregated e-waste take-back performance since 2006 : 3,516,953 ton (-2021)

Repair and disassembly with commonly available tools

Possible to repair and disassemble with the commonly available tools

We make efforts to design products that are easy to repair and disassemble to extend the product's lifetime. To achieve it, we try to make a product that can be repaired/disassembled with the commonly available tools. GSXV90MCAE can be repaired/disassembled with the commonly available tools like screw drivers or pliers.

* Commonly available tools : Tools that customers can get easily, like screw drivers and pliers. It includes the basic tools in EN45554(General methods for the assessment of the ability to repair, reuse and upgrade energy-related products), however, also tools that customers can purchase easily.

* We recommend that the qualified professionals conduct repair and disassembly.

10 Years

Global warranty period of important parts

We expand the warranty period of important parts to use the product longer. The important part of GSXV90MCAE is Linear/Inverter Compressor and the global warranty period is 10 years.

* This global warrant is only for the important parts of each product group, and the policy for warranty period can be changed. If you want to know more information about the warranty, please visit LGE.com in your country / region.

2 Carbon emission



442.241 kg CO₂ eq

Carbon emission in the use phase

The carbon emission in the use phase of GSXV90MCAE during the product's lifetime is 442.241 kg CO₂ eq. We will continue to implement enhanced energy improvement activities and contribute to reducing greenhouse gas emissions. If you want to know more information, please visit here.

<https://www.lg.com/global/environmental-strategic-task-1-1>

- * Carbon emission in the use phase : Among the product life-cycle (resource, manufacture, logistics, use, disposal), carbon emission produced during the use phase.
- * Carbon emission in the use phase is evaluated considering with the annual energy consumption and lifetime.
- * Energy consumption is derived by the local energy efficiency regulation. And if the product is sold in multiple region, then we select the representative region.
- * If local energy efficiency regulation doesn't have an annual energy consumption rule, then we used a weighted average value of the product group.
- * We used the lifetime of product in Korea Environmental Product Declaration rule.
- * Carbon emission factor of United Kingdom defined in International Energy Association Emissions Factors 2021 was used for calculating the carbon emission (0.2076 kgCO₂/kWh).

Expansion of Renewable Energy

Effort for reducing the carbon emission in manufacturing phase

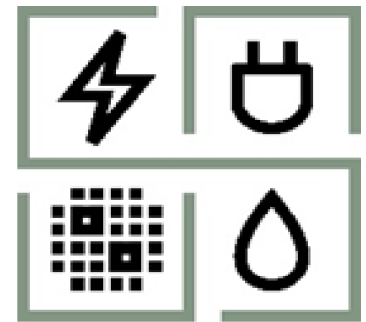
We are expanding the direct generation and use of renewable energy by using high-efficiency solar panels, and applicable options such as the green rate system for renewable energy purchasing, Renewable Energy Credit (REC) purchasing, and third-party Power Purchase Agreement (PPA). In addition, we are establishing a mid-to-long-term plan with a view to achieve 100% renewable energy use by 2050. In accordance with this plan, we aim to continue our efforts to switch to renewable energy in consideration of the current laws and business conditions of the countries where our Korean and overseas production sites are located.

If you want to know more information, please visit here.

<https://www.lg.com/global/environmental-strategic-task-1-1>

- * REC (Renewable Energy Credit) : Credit to prove the energy is provided from the renewable energy source. This credit is available in the market from the renewable energy generators.
- * PPA (Power Purchase Agreement) : Agreement between a corporate and a power generator.

3 Hazardous substance



RoHS Compliance

Compliance for product hazardous substance regulation

We comply to RoHS that prohibit the use of hazardous chemicals. If you want to know more information, please visit here. <https://www.lg.com/global/management-of-hazardous-substances>

* Related regulation : Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU (lead, cadmium, mercury, hexavalent chromium and its compounds, brominated flame retardants (PBB, PBDE) and four types of phthalate (DEHP, DBP, BBP, DIBP))

Packaging regulation compliance

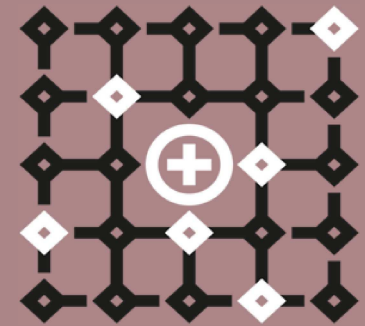
Compliant for packaging hazardous substance regulation

We comply to packaging directive that prohibit the use of hazardous substances. If you want to know more information, please visit here. <https://www.lg.com/global/management-of-hazardous-substances>

*Related regulation : Packaging and Packaging Waste Directive 94/62/EC

4

Responsible supply chain



Conflict Minerals

Conflict minerals management in supply chain

We are inspecting and assessing suppliers and smelters to address social issues that may arise in the production and procurement of major raw materials and minerals as well as evaluating and managing risks in the supply chain.

In addition, we are providing training to suppliers on improving awareness of the use of responsible minerals and making efforts to establish a sustainable supply chain through the use of RMAP certified smelters.

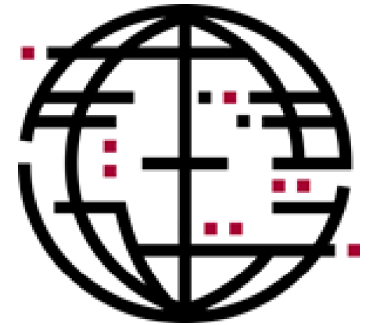
If you want to know more information, please visit here.

<https://www.lg.com/global/conflict-minerals>

* Conflict mineral : Minerals sourced from mines that are financing conflicts directly/indirectly. (Tantalum / Tin / Tungsten / Gold)

* RMAP (Responsible Mineral Assurance Process) : Assessment program for conflict-free smelter/refiner by RMI (Responsible Mineral Initiative)

5 Corporate Social Responsibility



Joining UNGC and RBA

Corporate social responsibility activities

We follow the code of conduct as a member of UN Global Compact (UNGC) and RBA (Responsible Business Alliance). And we also complies with international standards as well as labor/human right laws and regulations, such as the Universal Declaration of Human Rights by the United Nations, the ILO Tripartite Declaration of Principles Concerning Multinational Enterprises and Social Policy, and the OECD Guidelines for Multinational Enterprises. If you want to know more information, please visit here.

<https://www.lq.com/global/social-strategic-task-1>

* UN Global Compact (UNGC) : UNGC is a voluntary initiative that supports global companies that are committed to responsible business practices in the areas of human rights, labor, the environment, and anti-corruption.

* RBA (Responsible Business Alliance) : Industry coalition (Electrical and Electronics, Vehicle, etc.) dedicated to corporate social responsibility in global supply chains. (<http://www.responsiblebusiness.org>)

ISO14001

Certification of environmental management system

We have established an integrated management system for safety, health, energy, and environment (SHEE), while also striving to implement eco-friendly management and comply with our safety and health principles. We make various efforts to acquire additional certifications for our integrated SHEE management system at overseas production sites, Our 30 sites are certified ISO14001 as of June 2022.

If you want to know more information, please visit here.

<https://www.lq.com/global/sustainability-report>

* Environmental management system certification (ISO14001) ; ISO 14001 sets out the criteria for an environmental management system and can be certified to. It maps out a framework that a company or organization can follow to set up an effective environmental management system.

CERTIFICATIONS

3rd party certification



Korea LOHAS

Korea LOHAS (Lifestyles Of Health And Sustainability) means to create an always green society, a healthy society, and a happy society where everyone lives together. Regarding products, services, and spaces of companies and organizations that have made efforts and achieved results according to the definition of LOHAS. LOHAS products is granted to satisfied the condition of the health orientation, eco-friendliness, and stability of the product. For more information, please visit here.
<https://www.ksa.or.kr/korealohas/index.do>

* Validity period : 18-Oct-2023 ~ 17-Oct-2024