

# Product Environmental Report

## Galaxy S25

2025.01.22

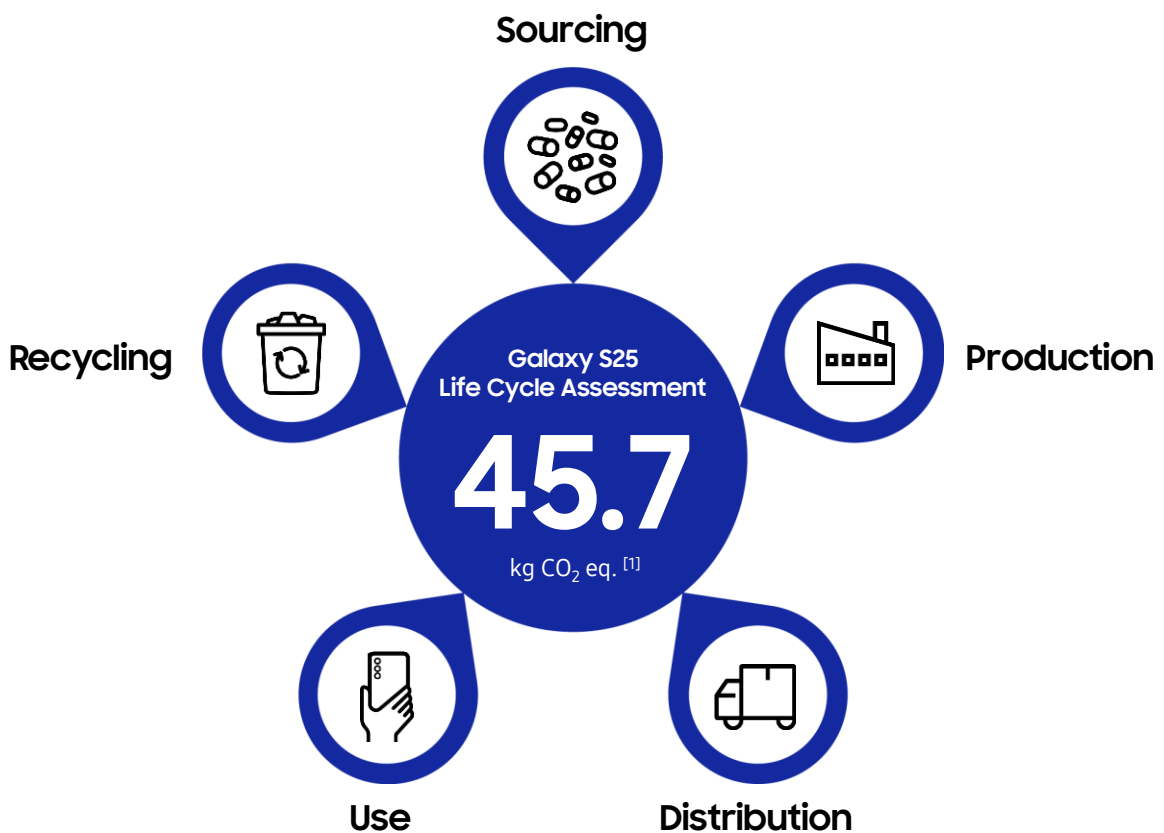


At Samsung, we work to embed eco-conscious technology and innovation in all of our products. By considering sustainability throughout the product life cycle, we aim to inspire our customers to join us in our journey of building a better tomorrow.

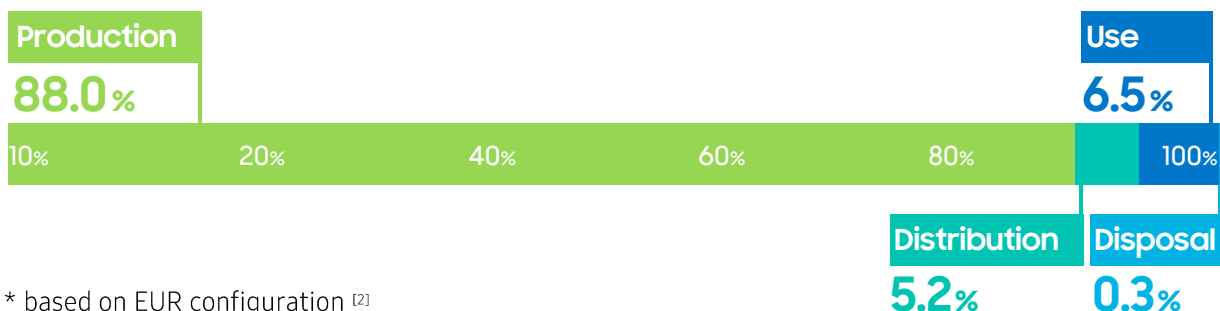
# Product Carbon Footprint

To understand the environmental impacts of our products, at Samsung Electronics, we assess a product’s entire life cycle, including the sourcing, production, distribution, product use and recycling phases.

At the production stage, we are aiming to expand the development and application of recycled materials with a lower carbon footprint. At the distribution stage, we are working to minimize packaging volume and weight to reduce carbon emissions. Through initiatives like improving the energy efficiency of chargers, we are trying to improve the environmental impact at the use stage.

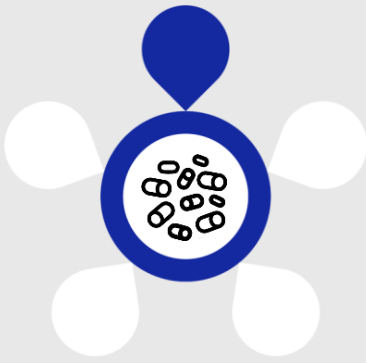


## Galaxy S25 life cycle carbon emissions



\* based on EUR configuration [2]

# Sourcing <sup>[3]</sup>



Across the product lifecycle, from raw material sourcing to disposal and recycling, we are continuing our efforts to create a circular economy.

To build toward a circular system, we are using recycled materials and collecting e-waste to extract materials for reuse. By 2030, we aim for 50% of the plastic used in our DX products to incorporate recycled resin. By 2050, we anticipate this figure to increase to 100%.

The Galaxy S25 introduces various recycled materials such as gold, copper, and Armor Aluminum for many parts and modules. Samsung Electronics continues to make efforts to reduce the impact of its products on the environment.



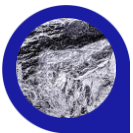
### Plastic

Recycled plastic is included in various components such as the front case, speaker modules, and volume key. <sup>[4]</sup>



### Cobalt

Cobalt used in the S25 battery contains 50% recycled cobalt.



### Aluminum

Armor Aluminum in the front case contains 20% recycled material.



### Rare Earth Elements

All magnets in the speaker modules and motor are made of 100% recycled rare earth elements.



### Glass

Glass in the front screen and back cover contains an average of 25% recycled glass.



### Steel

Steel in the speaker modules contains at least 40% recycled steel. <sup>[5]</sup>



### Gold

Gold for plating in the main printed circuit board contains 100% recycled gold.



### Copper

Recycled copper is included in various modules such as display, camera, wireless charge and printed circuit board. <sup>[6]</sup>



Chemical Mgmt.

To prevent hazardous substances from entering our products, we inspect manufactured parts and raw materials rigorously through our chemical management system.

Our Standards for the Control of Substances Used in Products <sup>[7]</sup> are based on global regulations and standards, and we voluntarily established reduction plans for the use of potentially hazardous substances, such as polyvinyl chloride(PVC), brominated flame retardants(BFRs), beryllium, and antimony, as well as legally regulated substances.

# Production



We are expanding the use of renewable energy at our business sites around the world.

Energy infrastructure and regulations, which vary widely by jurisdiction, require region-specific transition plans.



Renewable Energy

Safety and health certification (ISO) at our production sites

**100%**

We plan to run all operations of the DX(Device eXperience) Division on renewable energy by 2027. <sup>[8]</sup>

All of our business sites where Galaxy S25 is produced have attained ISO14001(environmental management system) and ISO50001(energy management system) certifications. <sup>[9]</sup>

Company-wide, we plan to obtain a platinum-level Zero Waste to Landfill validation, issued by safety certification organization Underwriters Laboratories(UL), for all global operations by 2025.



# Distribution



To reduce the environmental impact of our product packaging, we are replacing plastic packaging and protective films with paper and recycled materials to the extent possible.

We are also reducing the volume and weight of packaging to mitigate Greenhouse Gas emissions in the transportation and shipping process.



Our goal is to eliminate all single-use plastics in mobile product packaging by 2025. Since 2017, we have been exploring ways to eliminate single-use plastics in packaging by assessing every aspect of packaging design, down to the smallest details. <sup>[10]</sup>

Plastic In packaging **1.6%**

As a result, Galaxy S25 contains only 1.6% plastic in terms of total weight of the packaging. <sup>[11]</sup>

Reduced plastic in packaging **96.6%**

Compared to Galaxy S7, when we began our initiative to eliminate plastic packaging, we reduced the use of plastic in packaging for Galaxy S25 by 96.6%. <sup>[12]</sup>

Recycled paper **100%**

Paper used for the Galaxy S25 packaging box is 100% recycled paper. <sup>[13]</sup>



# Use



Environmental experts participate throughout product development at Samsung Electronics so that our customers can more sustainably use our devices.

During the product development phase, our stress tests help ensure the longevity and consistent performance of our products. This enables users to enjoy our products for longer periods of time.



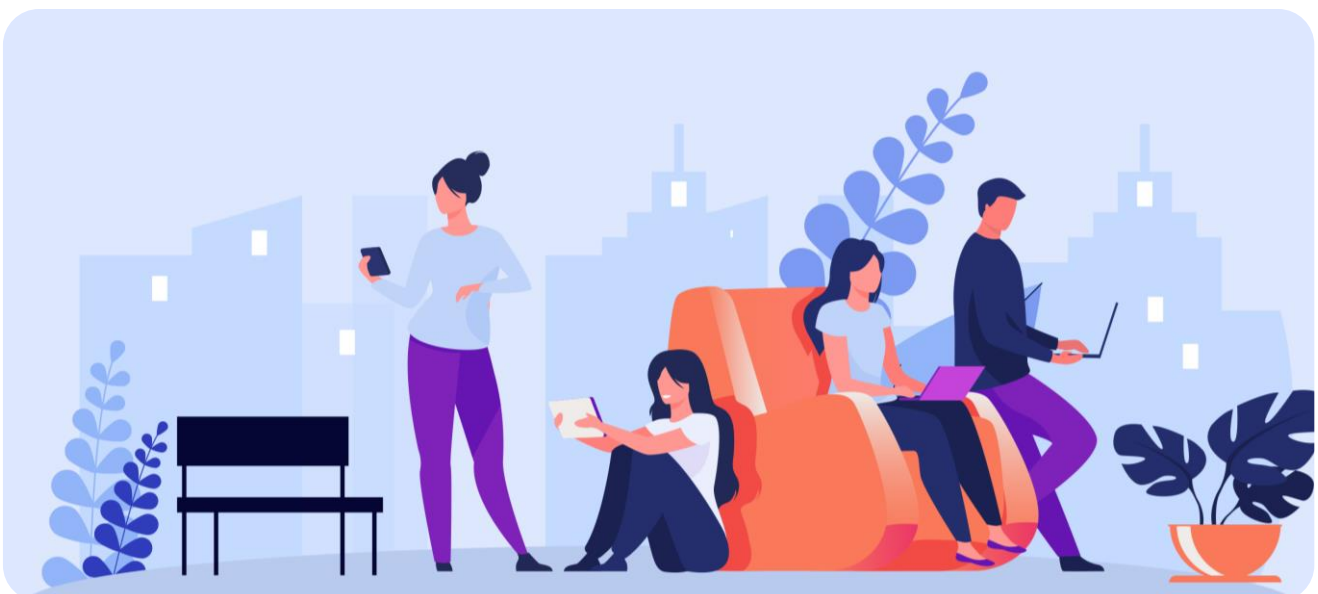
Repair & Reuse

Security Update & OS Upgrade <sup>[14]</sup>

**7 yrs & 7 gens**

Repairability is one of our main priorities in product development. In August 2022, we expanded the number of authorized and independent service providers, started a self-repair program in the US and will continue to expand this program.

Galaxy S25 has IP68 <sup>[15]</sup> water resistance and dust protection, and we provide seven generations of OS upgrades and seven years of security updates from the global launch date.





# Recycling



To promote the circular economy and a low-carbon society, we are expanding responsible recycling globally.

Samsung's local recycling programs provide collection services tailored to each region for customers disposing e-waste, and we take back all electrical and electronic waste regardless of product brand.



Collection

Samsung Electronics supports e-waste collection and recycling services in about 80 countries around the world, including the US, Brazil, and Spain. We plan to expand the scope of our e-waste collection system to about 180 countries by 2030.

Collected electronic goods are sorted, pre-processed, and shredded to be recycled as materials. Some of the materials like plastic are used for new product manufacturing. We also internally operate Requirements for Recycling Service Partners that specify requirements such as compliance obligations related to EHS-related laws and regulations, supplier management, and prohibition of illegal waste exportation.



## Endnotes

**1.** Samsung Electronics calculates product carbon emissions through its self-developed LCA system, which has been verified for conformity by the third-party certification body in accordance with the international standard below. Based on the results, Samsung Electronics continues to make efforts in the product development stage to improve the environmental characteristics of the product.

- ISO 14040:2006  
Life cycle assessment - Principles and framework
- ISO 14044:2006  
Life cycle assessment - Requirements and guidelines
- ISO 14067:2018  
Greenhouse gases - Carbon footprint of products - Requirements and guidelines for quantification

**2.** System boundary of Life Cycle Assessment

- Production : Pre-manufacturing(Parts and materials constituting the products and its transportation) and Product assembly by Samsung Electronics
- Distribution : From Vietnam to EUR
- Use : 3 years use
- Disposal : Waste treatment of parts and material

**3.** The content of all recycled materials are figures that have undergone third-party verification based on ISO 14021, and the content was measured based on weight.

**4.** List of components containing recycled plastic

- 80% content : Back Glass Deco Film
- 30% content : Volume Key PC, Side Key PC
- 20% content : Top & Bottom Speaker Module (Upper, Lower), Sim Tray
- 10% content : Case Front, Volume Key TPU, Side Key TPU

**5.** List of components containing recycled steel

- 40% content : Top Speaker Module Grill, Bottom Speaker Module Upper
- 70% content : Top Speaker Module Lower, Bottom Speaker Module Lower

**6.** List of components containing recycled copper

- 100% Recycled copper foil content  
Display module FPCB, Front camera module FPCB, Wide camera module FPCB, UW camera module FPCB  
3x Tele camera module FPCB, Main PCB, Sub PCB, Wireless charging coil

**7.** Standards for the Control of Substances Used in Products

<https://www.samsung.com/us/sustainability/environment/environment-data/>

**8.** Samsung Electronics joined RE100, a global initiative to reduce indirect carbon emissions from power usage(Scope 2), and is pursuing the transition of used electricity to renewable energy by 2050. Samsung Electronics aims to achieve transition 100% renewable energy at all overseas operations and DX Division by 2027. As of 2023, our operations in the US, China, Europe, South Korea, Vietnam, India, and Brazil have reached this target, we are planning to expand direct power purchase agreements(PPAs) centering on the regions equipped with active renewable energy policies and systems.

※ The DX Division produces and sells finished products such as TVs, monitors, refrigerators, washing machines, air conditioners, smartphones, tablets, computers and wearables.

<https://www.samsung.com/sec/sustainability/planet/climate-action/#anchor2>



## Endnotes

**9.** Our manufacturing sites are to meet international standards of ISO14001(environmental management system) and ISO50001(energy management system). We also strive to ensure that our suppliers have robust occupational health and safety management systems in place by encouraging them to attain certification for international standards and reflect related outcomes in the comprehensive supplier evaluations.

**10.** History of Galaxy S Eco-Conscious Packaging

<https://news.samsung.com/us/infographic-history-of-galaxy-s-eco-conscious-packaging/>

**11.** To meet the request of some clients, plastic shrink vinyl or PP sealing sticker is applied to certain packaging box variation. Percentage calculated based on total weight of plastic components used in packaging divided by total weight of packaging.

**12.** Calculation based on total weight of all plastic packaging components for the Galaxy S25 series compared to total weight of all plastic packaging components for the S7.

**13.** 100% recycled paper was applied to the product package unit box, excluding PP sealing sticker and shrink vinyl at the request of some clients, and pulp tray inside packaging.

**14.** Availability and timing of Android OS upgrades and security updates may vary by device model and market.

**15.** Based on lab test conditions for submersion in up to 1.5 meters of freshwater for up to 30 minutes. Not advised for beach or pool use. Water and dust resistance of device is not permanent and may diminish over time because of normal wear and tear.

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### **Corporate Sustainability Management**

Samsung is constantly striving to deliver innovative products and services across the value chain. This is rooted in our core values in economy, society and environment. Therefore, we monitor the financial and non-financial impacts that we exert on society in order to maximize our positive impacts while minimizing any negative ones.

<https://www.samsung.com/global/sustainability/main/>

### **Environmental Strategy**

Samsung announced the New Environmental Strategy in September 2022 with the aim of addressing global environmental issues through our innovative technologies. This paradigm shift is essential for our sustainable growth and will create meaningful momentum to reinforce our competitiveness.

The New Environmental Strategy was developed based on our commitment to achieve net zero in DX division by 2030, and DS division by 2050, joining the world's effort to combat climate change, maximize resource circularity to advance towards a circular economy, and continuously address environmental challenges with technological innovation. This effort is expected to bring positive change to the broader ecosystem of the ICT industry as we engage in the manufacturing and supply of an extensive range of products and services.

<https://www.samsung.com/global/sustainability/planet/environmental-strategy/>

### **Circular Economy**

Samsung aims to manage resources more sustainably by using recycled materials and researching methods to extract and re-use resources from e-waste.

<https://www.samsung.com/global/sustainability/planet/circular-economy/>