

# Product Environmental Report

## BESPOKE Grande AI Washer

2024.07.30.

At Samsung, we strive to integrate innovative and efficient technology into our product, aiming to create better value at each stage of the product life cycle.

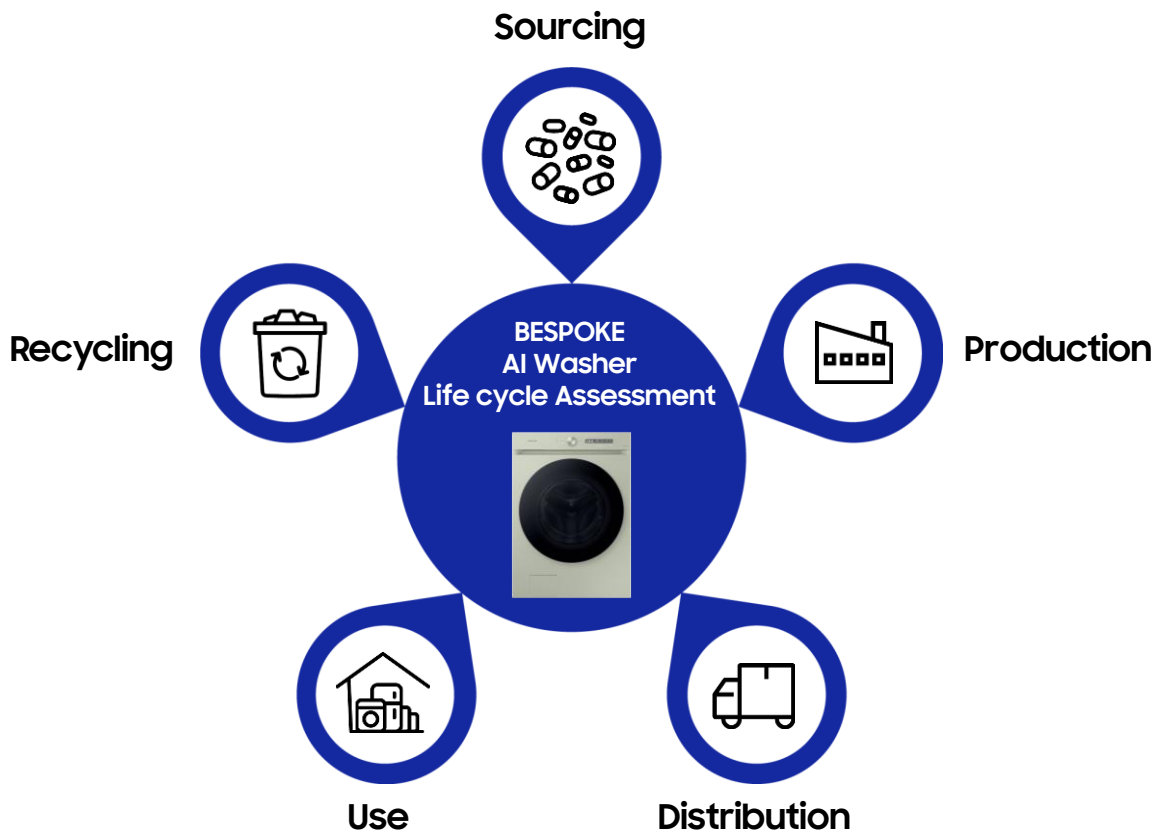


\* Certification : WF25CB8895\*\*

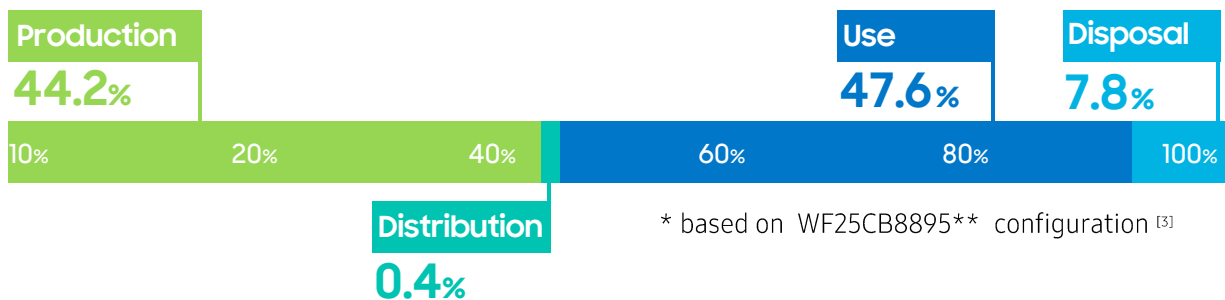
# Product Carbon Footprint

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 reduce packaging volume and weight to reduce carbon emissions. Through improving product energy efficiency, we are trying to improve the environmental impact at the use stage.

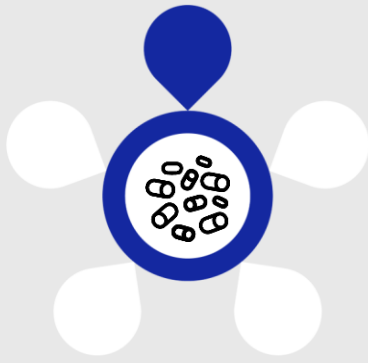


## BESPOKE Grande AI Washer Life cycle carbon emissions



※ The above figures (%) are the basis for calculating the environmental impact throughout the entire life cycle of a product into CO2 emissions. <sup>[2]</sup>

# Sourcing



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(Device eXperience) products to incorporate recycled resin. By 2050, we anticipate this figure to increase to 100%.

Samsung Electronics uses recycled materials for parts in BESPOKE Grande AI Washer products. In addition, we are trying to manage its supply chain so that minerals used in its products are mined in accordance with OECD due diligence guidelines.

## Plastic



The BESPOKE Grande AI Washer's cover door contains at least 10% raw materials (Circular Naptha) certified by ISCC, and at least 20% of recycled plastic is used in the holder glass and the detergent box case inside the machine. <sup>[3]</sup>

## Responsible minerals



For internationally disputed minerals such as copper, nickel, we elect to only use minerals supplied by smelters that have obtained global third-party certifications. Minerals that raise human rights violations or environmental destruction issues during mining are included in the list of management <sup>[4]</sup> and are avoided in our management of the mineral supply chain.



Chemical  
Mgmt.

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

Our standards for the Control of Substances Used in Products<sup>[5]</sup> are based on global regulations and standards. We voluntarily established reduction plans for the use of potentially hazardous substances 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

We plan to run all operations of the DX(Device eXperience) Division on renewable energy by 2027.<sup>[6]</sup>

We are constantly trying to reduce waste and expand recycling. We plan to obtain a platinum-level zero Waste to Landfill Certification, issued by safety certification organization Underwriters Laboratories(UL), for all our global operations by 2025.

Sites that produce Samsung Electronics refrigerators, washing machines, dryers, air conditioners, ovens, microwave ovens, vacuum cleaners, etc have been certified for environmental management(ISO14001) and energy management(ISO50001).<sup>[7]</sup>



# Distribution



To reduce the environmental impact of our product packaging, we are replacing plastic packaging and vinyl wraps with paper and recycled materials.

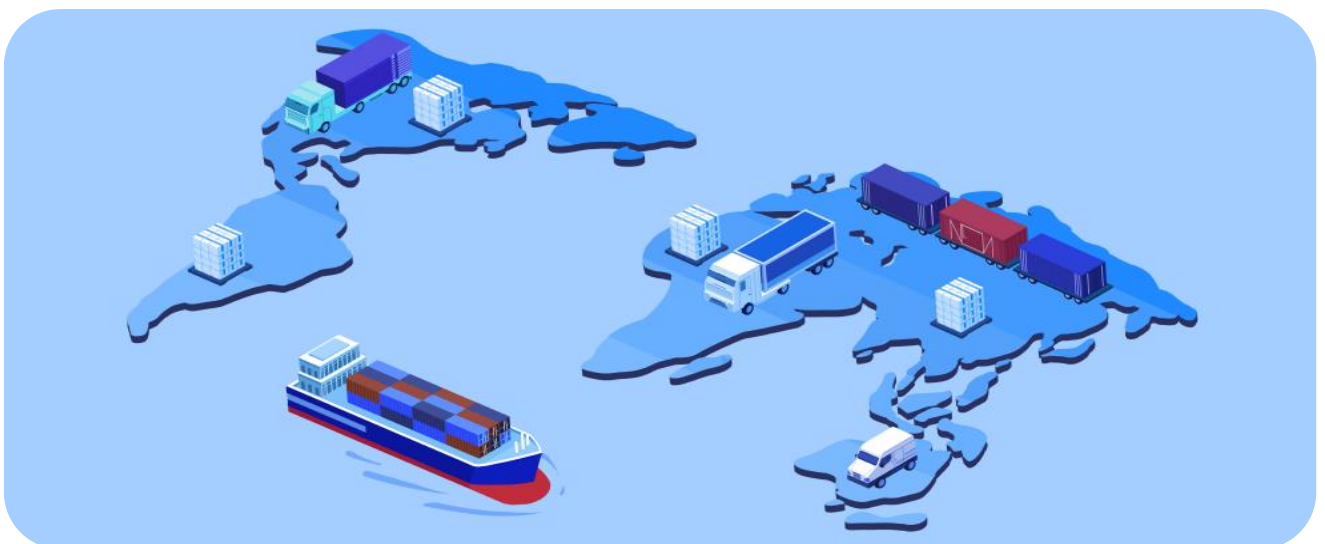
We are also reducing the volume and weight of packaging to mitigate greenhouse gas emissions in the transportation and shipping process.



Samsung Electronics uses FSC(Forest Stewardship Council)\* certified paper for the paper packaging of all refrigerators, washing machines, dryers, air conditioners, air dressers, air purifiers, cooking appliances, and vacuum cleaners.

\* Forest management certification system established by the Forest Management Council, an international NGO to protect forest resources and spread sustainable forest management.

In some countries, using paper has been reduced by providing consumers with online manuals through QR codes instead of paper manuals.



# Use



Environmental experts participate throughout product development at Samsung Electronics to analyze the environmental impacts associated with the use of our products.

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.



To reduce use-phase carbon emissions, we set our plan to reduce power consumption by 30% on average by 2030, compared to products with the same specifications in 2019.<sup>[8]</sup>

\* Single-use Power consumption of the BESPOKE Grande AI Washer(As of year 2023) : 2,200W<sup>[9]</sup>

We are developing solutions that support energy efficiency at the use stage.

## SmartThings Energy Saving mode

BESPOKE Grande AI Washer can save up to 60% of energy when used through the Energy Saving mode in SmartThings App.<sup>[10]</sup>



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Repair & Reuse

Repairability is one of our main priorities in the product Development. We started a self-repair program for refrigerators, washing machines, dishwashers in Europe in March 2021 and will continue to expand this program.

For the parts of some models of refrigerators, washing machines, dryers and ovens that have been replaced by modules, we are changing the design so that they can be separately repaired.<sup>[11]</sup>

We want to reduce household appliance waste by providing warranty service for digital inverter compressors and motors, which are key components of home appliances. We provide long time warranty service for BESPOKE Grande AI Washer's inverter motor, including free repair and replacement.<sup>[12]</sup>

The Less Microfiber™ Cycle, which reduces the amount of microplastics by up to 60% with an bubble made in collaboration with Patagonia and delicate drum motions, is provided.<sup>[13]</sup>





# Recycling



To promote the circular economy and a low-carbon society, we are expanding responsible recycling in more than 50 countries around the world.

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



Upcycle packaging is applied to vacuum cleaners, air purifiers, Qookers, cube refrigerators and some microwave ovens. We are considering expanding into other products in future.[14]

Upcycle packaging is designed so that consumers can upcycle the packaging box that was discarded after product transportation. Customers can make various items, such as magazine holders and pet products, using dot patterns printed on the surface of the packaging box. Through this, the recyclability of packaging materials can be increased, and the impact on the environment can be reduced.





# Endnotes

## Disclaimer

1. The Carbon Trust of the U.K. calculated greenhouse gas generated in the entire process from production to disposal of products in accordance with evaluation standards, and Samsung obtained a "carbon footprint" certification that evaluates carbon emissions of products.  
Certification model: WF25CB8895\*\*
  
2. Life Cycle Assessment System Boundary
  - Production: Pre-manufacturing (parts and materials that make up the product) and assembling the product at Samsung Electronics
  - Distribution: Distribution from Gwangju metropolitan city to each area in South Korea
  - Use: Used for 5 years
  - Disposal: Waste disposal of parts and materials
  
3. Recycled materials have been verified by third-party organizations.
  - Certification was obtained from ISCC Plus.
    - . Cover door : Contains at least 10% of raw material(Circular Naptha) (based on weight)
  - Environmental Claim Validation (ECV) verification was obtained from UL for recycled materials
    - Verification method : Environmental Claim Validation Procedure for Recycled content, UL 2809 – Fifth Edition
    - . Door holder glass : Contains at least 20% recycled PP (polypropylene) (based on weight)
    - . Inner detergent box : Contains at least 20% recycled PP (polypropylene) (based on weight)
  
4. Samsung Electronics operates a mineral management process based on OECD due diligence guidelines for responsible minerals.  
<https://www.samsung.com/global/sustainability/people/supply-chain/#anchor4>
  
5. Product Environment Management Substances Operation Rules  
<https://www.samsung.com/global/sustainability/digital-library/policy-document/>
  
6. Details of the conversion of renewable energy  
Samsung Electronics joined RE100, a global initiative to reduce indirect carbon emissions from power usage (Scope 2), and is pursuing the conversion of used electricity to renewable energy by 2050.  
First, Samsung Electronics aims to achieve its renewable energy target at all overseas operations by 2027. In the case of the US, China, and Europe, which have already reached this target, we plan to expand direct power purchase agreements(PPAs) centering on the regions equipped with active renewable energy policies and systems.  
The DX division aims to achieve its renewable energy target by 2027, both at home and abroad.  
※ Samsung Electronics' Device eXperience(DX) division is in the business of producing and selling TVs, monitors, refrigerators, washing machines, air conditioners, smartphones, tablets, PCs, and wearable products, etc.  
<https://www.samsung.com/global/sustainability/planet/climate-action/#anchor2>



## Endnotes

13. The effectiveness of the Less Microfiber™ Cycle of WF25CB8895\*\* was confirmed through a test by OceanWise a non-profit organization.
  - Test Conditions : Comparison of fine plastic reduction courses and standard courses, 40°C, 2kg cloth of Polyester hoodies
14. Providing drawings for upcycle packaging production props  
<https://www.samsung-upcyclepackaging.com>

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### Recycling

Samsung established waste collection systems in each region as we work tirelessly to enhance the collection and recycling of waste products. We also offer product take-back and recycling services for Samsung products in countries with local take-back legislation. We are always looking to expand to additional locations.

<https://www.samsung.com/global/sustainability/digital-library/policy-document/>

### Environmental Strategy

Samsung Electronics 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 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.

### 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/>



## Carbon Footprint Label

### Samsung Electronics

has measured the product carbon footprint of their

### Laundry Machine (WF25CB8895\*\*)

Carbon Trust Assurance has certified that this project has met all the requirements for using the Carbon Trust Carbon Footprint Label.



The above is the generic version of the Carbon Trust Label which you are licensed to use, you may agree bespoke text with the Carbon Trust if you wish to use alternate text.

A full description of the scope of certification and a detailed list of certified Carbon Footprint results can be found in the associated Certification Letter CERT-13596

Awarded: 13 December 2023

Valid Until: 12 December 2025

for and on behalf of Carbon Trust Assurance Ltd,

A handwritten signature in black ink, appearing to read "M Hockaday".

Martin Hockaday,  
Head of Assurance

This certificate is for presentation purposes only. Please do not copy or circulate this certificate without the Certification Letter and associated Annexes where full details on the scope of the certification are documented. This certificate remains the property of Carbon Trust Assurance Limited and is bound by the conditions of the contract. Information and Contact: Carbon Trust Assurance Limited is registered in England and Wales under Company number 06547658 with its Registered Office Level 5, Arbor, 255 Blackfriars Road, London SE1 9AX, UK. Telephone: +44 (0) 20 7 170 7000. Carbon Trust Assurance Limited is a fully owned subsidiary of the Carbon Trust.