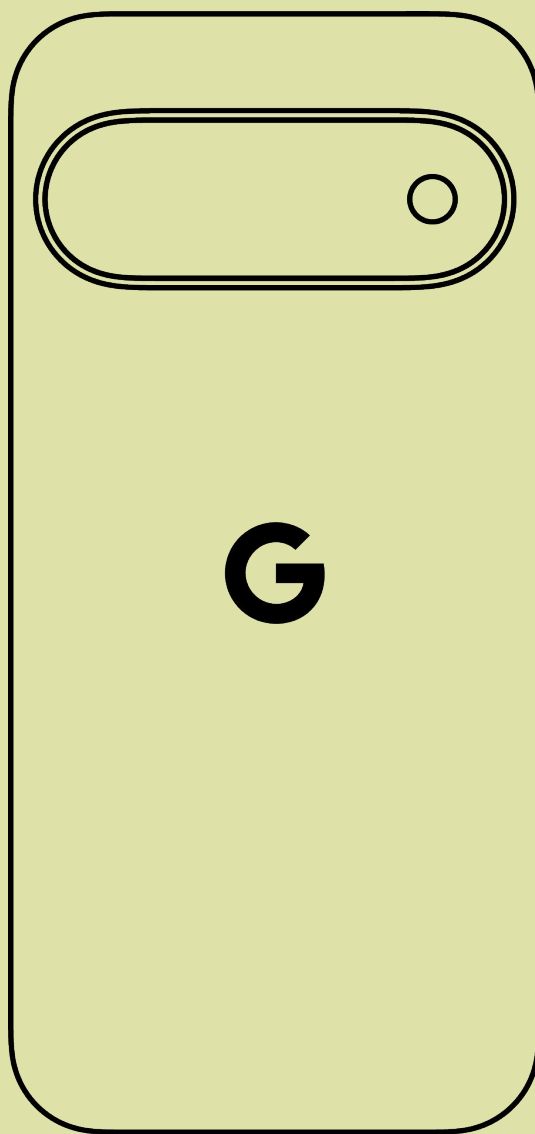


Pixel 11





INTRODUCTION

At Google, operating in an environmentally sustainable way has been a core value from the beginning.

Our Google [Environmental Report](#) provides a holistic view of our corporate sustainability strategy, ambitions and progress.

We're building consumer hardware products with people and the planet in mind. That's why we've developed energy-saving features, created longer-lasting devices, and promote the use of lower carbon and recycled materials.

There is always space to go further.
Progress is a journey, not a destination.

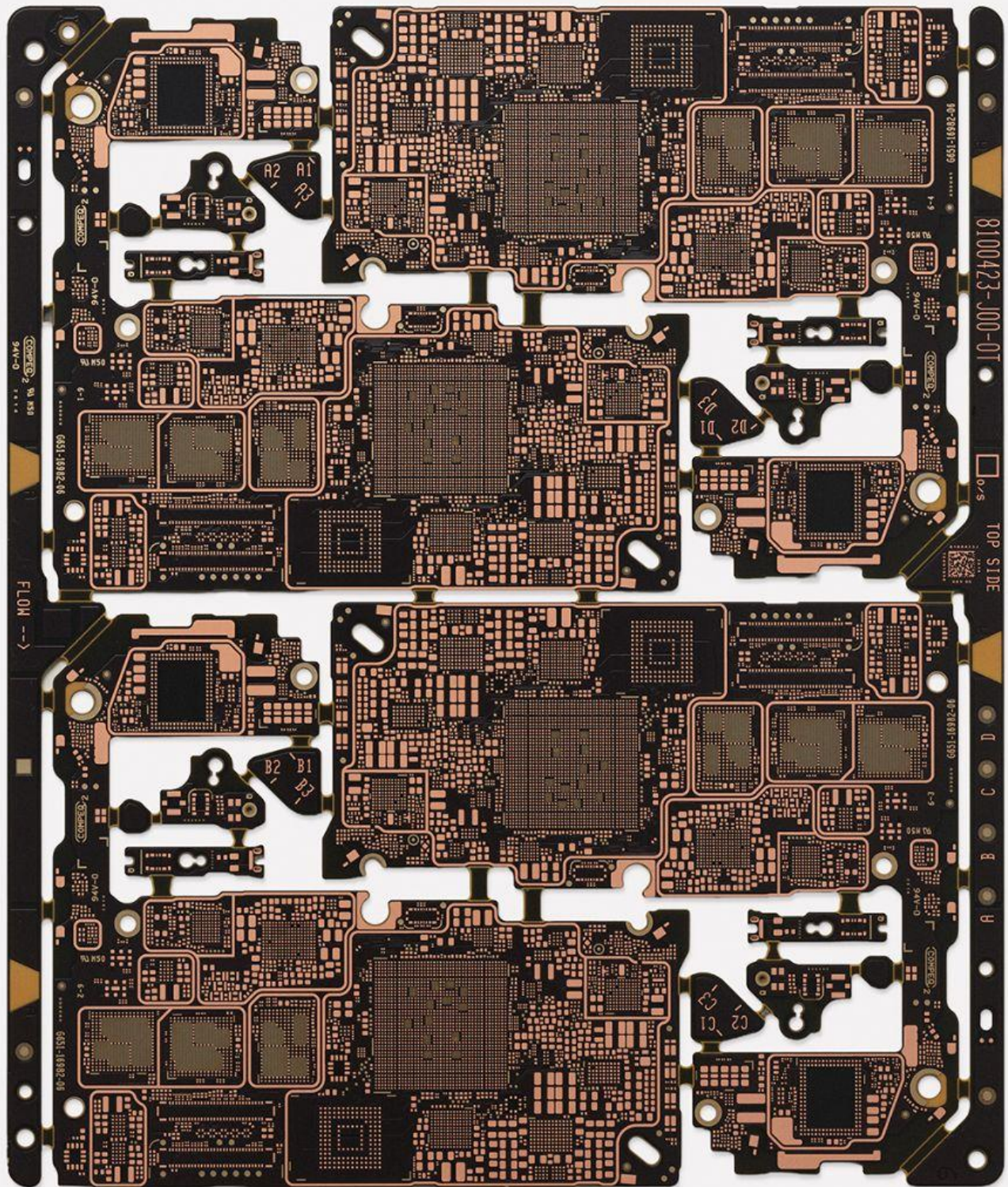
The following pages detail the environmental performance of the Pixel 11 including its full life cycle carbon footprint, from design and manufacturing through usage and end-of-life processing.



TABLE OF CONTENTS

Pixel 11 environmental report includes the following:

01. Introduction
02. Our approach
03. Pillars
 - a. Engineering our products to last
 - b. Designing intentionally with responsible materials
 - c. Advancing collective progress through sharing
04. Environmental reporting data
05. Endnotes



Recycled copper and gold shown on Pixel 11 series printed circuit board



Progress is
a journey,
not a
destination.



OUR APPROACH

Art and science.

Sustainable design is an iterative process guided by intention, craft, and consideration in every detail. To bring this to life across our Pixel, Google Home, and Fitbit portfolios, we focus on three key pillars to guide our steps forward.

PILLAR 01

Engineering
our products
to last

PILLAR 02

Designing
intentionally
with responsible
materials

PILLAR 03

Advancing
collective
progress through
sharing

PILLAR 01

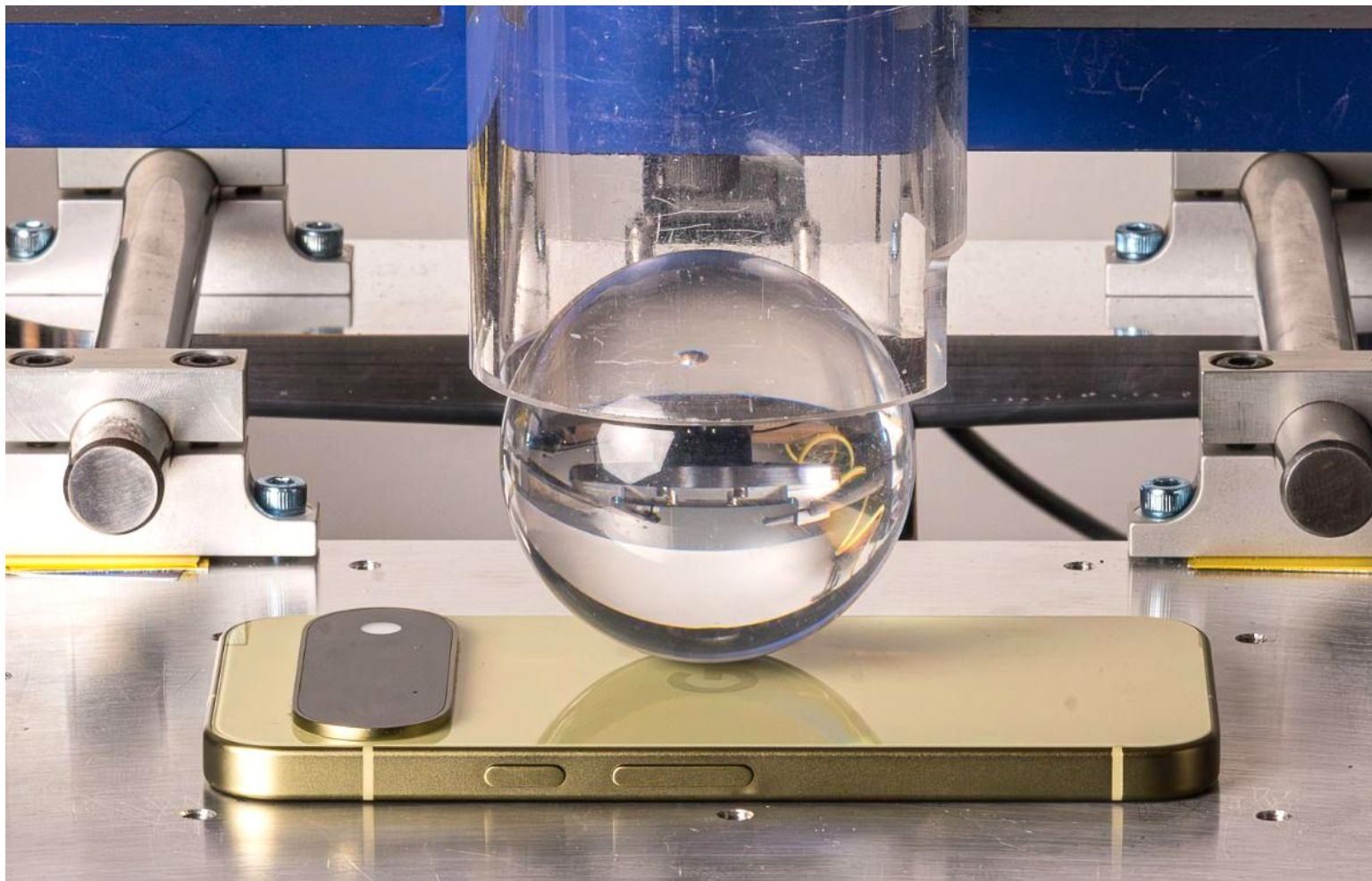
Engineering our products to last

Durable products last longer, reducing the need for replacement.

The Pixel 11 is intentionally built to stay strong for years. It combines a refined look with a resilient frame and scratch-resistant glass, purposefully built to withstand everyday stumbles, scratches, and spills—backed by IP68 water and dust protection.¹ It also comes with Pixel Drops and 7 years of OS and security updates so you can enjoy your phone longer.²



IPX4 water
ingress test

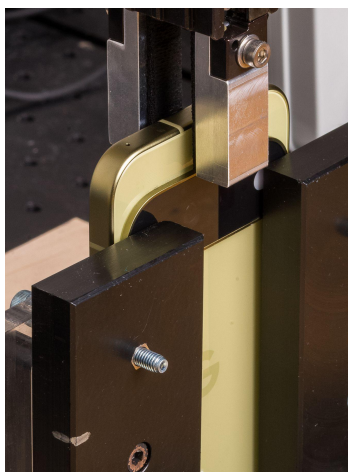


[01]

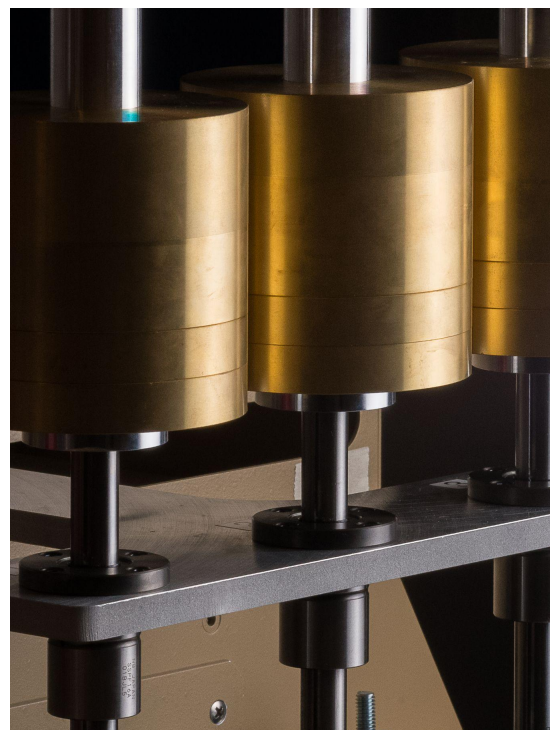
[01]
Automated ball drop test

[02]
Side impact drop test

[03]
Display glass edge
compression weights



[02]



[03]



Designed to be repaired and reloved

Across the Pixel ecosystem, we're designing with intention to improve the entire end-to-end repair experience. The Pixel 11 series is engineered for convenient, easy repairs from the inside out. By combining an intuitive internal design with access to genuine Google parts from our global network of certified experts, our goal is to make upkeep straightforward so your phone can serve you better, for longer.

Learn more at g.co/repair

PILLAR 02

Designing intentionally with responsible materials

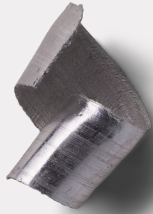
Through innovative design and a commitment to expanding our recycled materials portfolio, we are driving carbon reduction and minimizing waste across our operations.

The Pixel 11 is made with at least 33% recycled materials by product weight, including recycled aluminum, cobalt, copper, glass, gold, plastics, tin, tungsten, and for the first time, recycled lithium in the battery cell³ and 100% recycled rare earth elements in all magnets.⁴

The product packaging is 100% plastic-free.⁵



Recycled Lithium



Recycled Aluminum



Recycled Cobalt



Recycled Copper



Recycled Glass



Recycled Gold



Recycled Plastic



Recycled Rare Earth Elements



Recycled Tin



Recycled Tungsten



Recycled Newsprint
[Packaging]



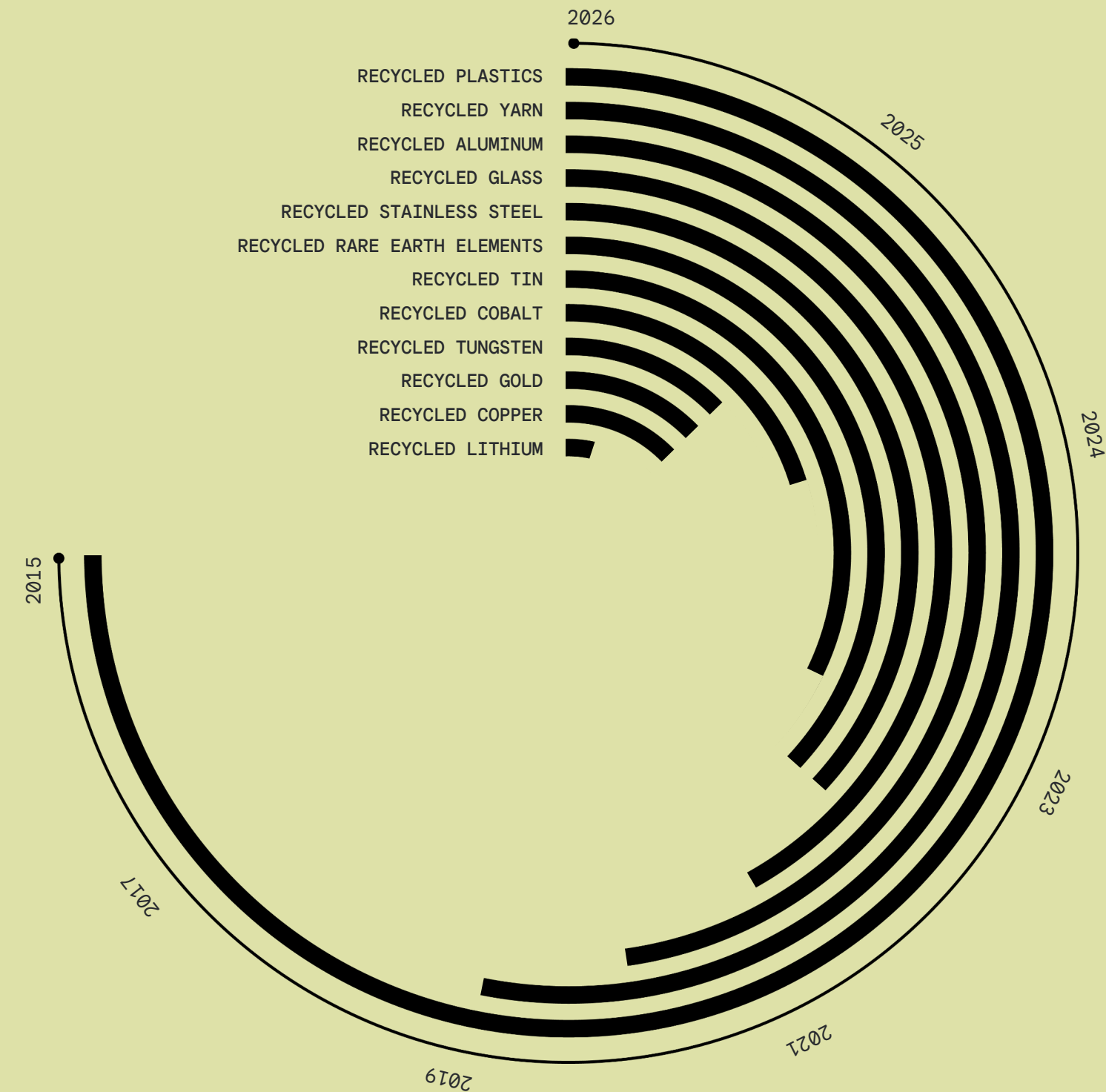
Bamboo
[Packaging]

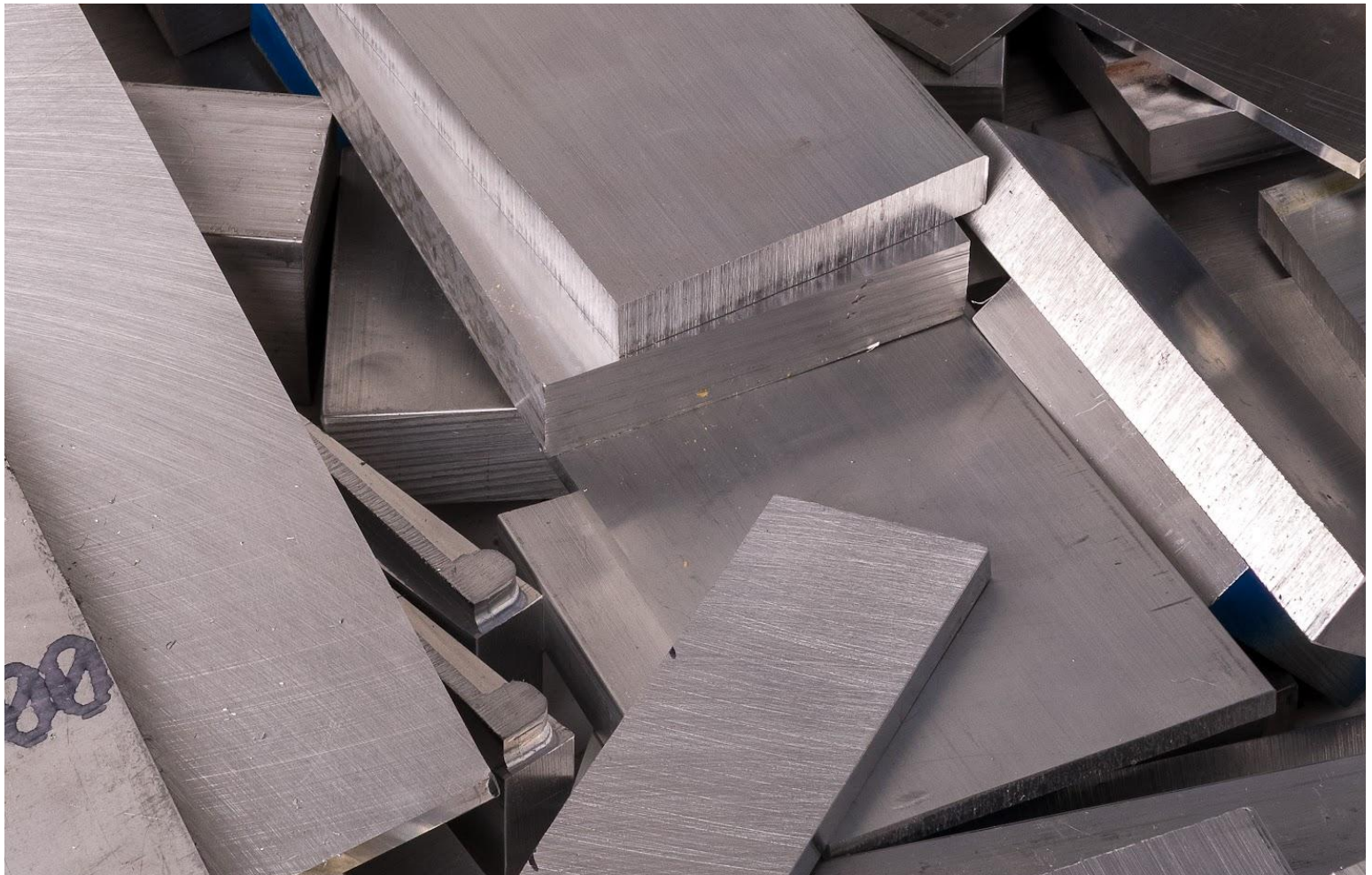


Molded Fiber
[Packaging]

Evolving + Expanding

Since 2015, we have been striving to expand our portfolio of recycled ingredients. While exact percentages and applications vary across products, our goal is to maximize recycled content everywhere possible.





Carbon conscious design

The Pixel 11 features a 100% recycled aluminum frame.⁶

100% recycled aluminum was first used in the enclosure of Pixel 5 to reduce its carbon footprint. Since then, we have expanded the use of recycled aluminum across the portfolio, including 100% recycled aluminum in the enclosures of all Pixel phones since Pixel 6, and Pixel watches since Pixel Watch 2.⁷

Transitioning our supply chain to clean electricity is one of our most critical decarbonization levers. Through the Google Clean Energy Addendum, we ask our highest-impact hardware suppliers to commit to a 100% clean electricity match by the end of 2029 for the electricity they use to manufacture Google products.⁸ For emissions in our supply chain where we lack visibility to trace to a specific supplier or where there's no supplier to engage, we're pioneering a direct procurement approach using high quality energy certificates.

Please visit our [Environmental Report](#) to learn more.

Advancing collective progress through sharing

Collaboration is key to advancing sustainability. With the publication of our new **Recycled Materials Guide** in 2026, we continue to share our engineering and supply chain insights to help fuel industry-wide change. Learn more:

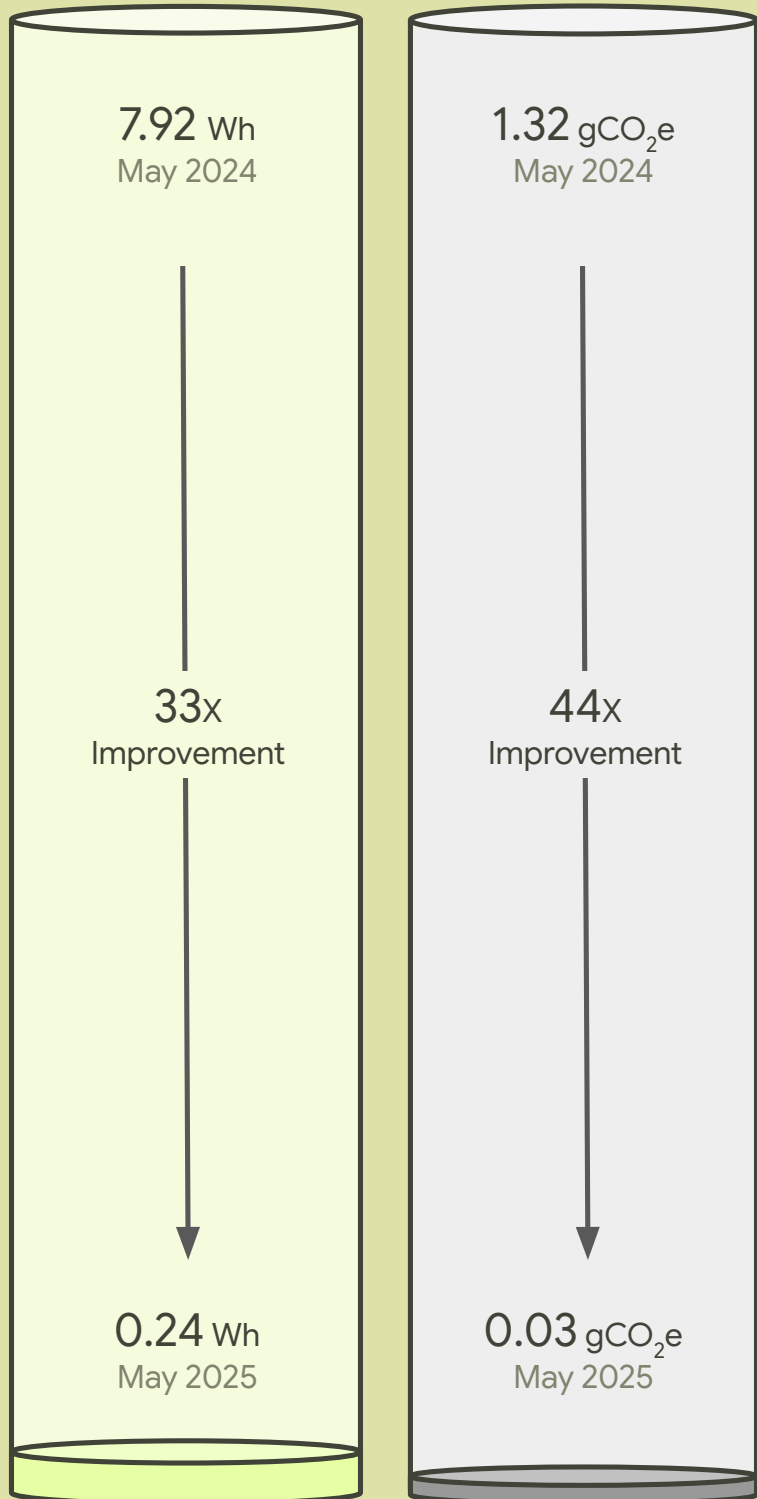
[Recycled Materials Guide](#)

[Consumer Hardware Carbon Reduction Guide](#)

[Plastic-Free Packaging Design Guide](#)



Our devices are a gateway to Google's AI products.



Google data centers—which power all of our products including Search, YouTube, Google Cloud, Gemini, and more—are some of the most efficient in the industry. In August 2025, we published a technical paper detailing our comprehensive methodology for measuring the energy, emissions, and water impact of Gemini prompts.

Over a 12-month period, the energy and total carbon footprint of the median Gemini Apps text prompt dropped by factors of 33 and 44, respectively, all while delivering higher-quality responses.⁹

To learn more about our approach to sustainability, visit sustainability.google

We estimated the median Gemini Apps text prompt uses 0.24 watt-hours (Wh) of energy, emits 0.03 grams of carbon dioxide equivalent (gCO₂e), and consumes 0.26 milliliters (or about five drops) of water¹⁰ — figures that are substantially lower than many public estimates.

Pixel 11

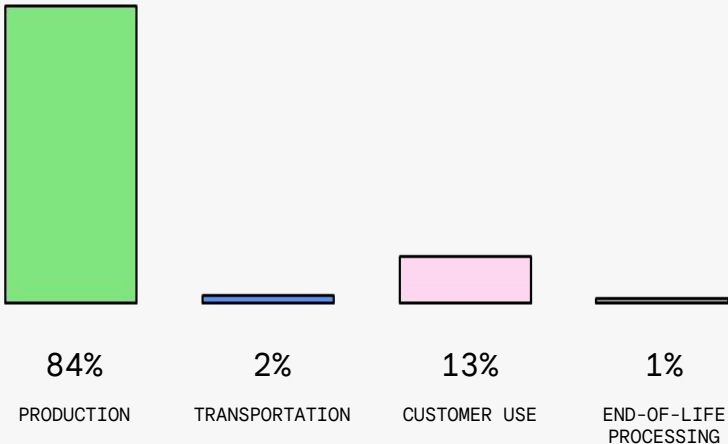
Product Environmental Report

GREENHOUSE GAS (GHG) EMISSIONS

The production, transportation, use, and end-of-life processing of electronic products generate GHG emissions that contribute to rising global temperatures. Google conducted a life cycle assessment on this product to identify materials and processes that contribute to GHG emissions, with the goal of minimizing these emissions. See our [Consumer Hardware Carbon Reduction Guide](#) to learn more.

ESTIMATED GHG
EMISSIONS FOR PIXEL 11
ASSUMING THREE YEARS
OF USE:¹¹

79 kgCO₂e



ENERGY EFFICIENCY

Pixel 11 incorporates power-management software to maximize battery-charging efficiency and extend battery life during use.

ENERGY EFFICIENCY OF PIXEL 11

	115 V, 60 Hz	230 V, 50 Hz
Standby (battery maintenance mode) power ¹²	0.20 W	0.19 W
Annual energy use estimate ¹³	7 kWh	7 kWh
Annual cost of energy estimate	US\$1.32 ¹⁴	€2.03 ¹⁵

Pixel 11

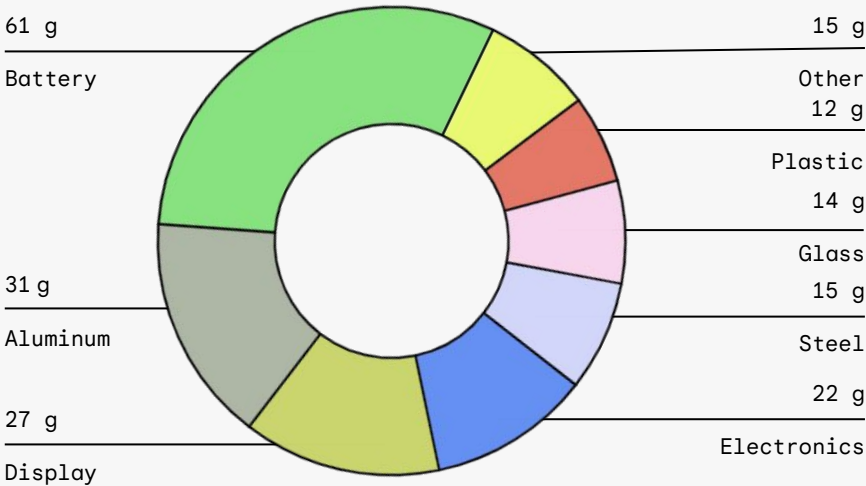
Product Environmental Report

MATERIAL USE

The Pixel 11 is designed to eliminate unnecessary bulk. By optimizing its dimensions and weight, we maximize material efficiency, lower manufacturing and shipping energy, and reduce packaging waste without compromising capability.

MATERIALS USED IN PIXEL 11

TOTAL MATERIALS:¹⁶
197 g



RECYCLED MATERIALS

- ↻ The aluminum in the housing is 100% recycled content.⁶
- ↻ The battery cell is made with 100% recycled cobalt and 100% recycled lithium.¹⁷
- ↻ The main logic board is made with 100% recycled copper and gold.¹⁸
- ↻ Made with 100% recycled rare earth elements in all magnets.⁴
- ↻ Of 12 plastic components in Pixel 11, 8 are made with recycled content that are at least 30% recycled plastic.¹⁹

Pixel 11
Product Environmental Report

RECYCLED MATERIALS
(Cont'd)

- ♻️ 100% recycled tin in the solder of multiple printed circuit boards, including the main logic board.²⁰
- ♻️ The haptic engine is made with 100% recycled tungsten and 100% recycled copper wire.²¹

BATTERY

- ✅ Lithium-ion polymer

RESTRICTED SUBSTANCES

Historically, many electronic devices contained materials such as lead, mercury, cadmium, and brominated flame retardants that pose environmental and health risks. We designed Pixel 11 to meet global regulations that restrict harmful substances, including the following:

- ✅ European RoHS Directive restrictions on lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB), polybrominated diphenyl ethers (PBDE), and four different phthalates (DEHP, BBP, DBP, DIBP)
- ✅ European Battery Regulation restrictions on lead, mercury, and cadmium in batteries
- ✅ European Packaging Directive restrictions on lead, mercury, cadmium, and hexavalent chromium in packaging

Pixel 11

Product Environmental Report

VOLUNTARY SUBSTANCE
RESTRICTION

Pixel 11 also meets the following voluntary substance restrictions:²²

- ✔ PVC-free²²
- ✔ Brominated Flame Retardant (BFR)-free²²

PACKAGING

Pixel 11 comes in consciously designed packaging. Our light and compact packaging is made with recycled and responsibly sourced fibers and continues to be 100% plastic-free, improving recyclability.⁵ To learn more about our plastic-free packaging, please see our [Plastic-Free Packaging Design Guide](#).

RESPONSIBLE SOURCING

Google is committed to fostering a sustainable and responsible supply chain through treating workers with respect and dignity, promoting healthy and safe working conditions, and conducting environmentally responsible and ethical operations.

Learn more about our expectations for supply chain partners in the [Google Supplier Code of Conduct](#), our [2025 Supplier Responsibility Report](#), and our [Conflict Minerals Policy](#).

PRODUCT CERTIFICATIONS

- ✔ UL ECOLOGO® Silver^{23,24}



Pixel 11

Product Environmental Report

ENDNOTES

1. Designed to comply with dust and water protection rating IP68 under IEC standard 60529 when each device leaves the factory but the device is not water or dust proof. The accessories are not water or dust resistant. Water resistance and dust resistance are not permanent conditions and will diminish or be lost over time due to normal wear and tear, device repair, disassembly or damage. Phone is not drop/tumble proof and dropping your device may result in loss of water/dust resistance. Damage from drops, tumbles, and other external forces are not covered under warranty. Liquid damage voids the warranty. See g.co/pixel/water for details.
2. Pixel updates for 7 years from when the device first became available on the Google Store in the US. See g.co/pixel/updates for details.
3. Recycled lithium is at least 2% of the battery cell weight.
4. Recycled rare earth elements are at least 22% of the magnet weight for each item.
5. Based on retail packaging (excluding adhesive materials and required plastic stickers) as shipped by Google. To meet the request of some retail partners, stickers and/or security tags are applied to some packaging variations and may contain plastic.
6. Recycled aluminum is at least 11% of product based on weight.
7. Recycled aluminum in the enclosures is at least 3% of Pixel Watch, 9% of applicable Pixel Phones. Recycled aluminum was not used in the enclosure of Pixel 5a.
8. The Google Clean Energy Addendum applies to the electricity consumed by suppliers in the manufacturing of Google technical infrastructure and consumer hardware products.
9. A point-in-time analysis quantified the energy consumed per median Gemini App text-generation prompt, comparing data from May 2024 to data from May 2025. Energy per median prompt is subject to change as new models are added, AI model architecture evolves, and AI chatbot user behavior develops. These estimates have not been independently verified.
10. A point-in-time analysis quantified the energy consumed per median Gemini App text-generation prompt, considering data from May 2025. Emissions per prompt was estimated based on energy per prompt, and applying Google's 2024 average fleetwide grid carbon intensity. Water consumption per prompt was estimated based on energy per prompt, and applying Google's 2024 average fleetwide water usage effectiveness. These findings do not represent the specific environmental impact for all Gemini App text-generation prompts nor are they indicative of future performance. For more details, refer to "[Measuring the Environmental Impact of Delivering AI at Google Scale](#)," Google, August 2025.
11. GHG emissions estimates are calculated in accordance with ISO 14040 and ISO 14044 requirements and guidelines for conducting life cycle assessments, and include the production, transportation, use, and end of life processing of the product, accessories, and packaging. GHG emissions estimates are for the 256 GB memory configuration.

Pixel 11

Product Environmental Report

ENDNOTES (Cont'd)

12. Power measured with phone connected to cellular and WiFi networks in standby mode with fully charged battery and attached to the power adapter using the in-box USB-C cable. Tested in accordance with the [U.S. DOE Uniform Test Method for Measuring the Energy Consumption of Battery Chargers](#). Energy consumption patterns may vary when adaptive charging is enabled.
13. Based on average charging of previous generation devices. Actual energy consumption will vary by user.
14. The average residential cost of energy for U.S. households is \$0.19 per kWh in April 2026 (source: [U.S. Energy Information Agency](#)).
15. The average household cost of energy for consumers in the EU-27 was €0.29 per kWh in the second half of 2025 (source: [Eurostat Statistics Explained](#)).
16. Product material masses are for the Pixel 11 only, excluding packaging and accessories. For the U.S. configuration, an additional 29 g of electronic accessories are included in-box.
17. Recycled cobalt and lithium are at least 27% of the battery cell weight.
18. The recycled copper is at least 58% of the main logic board weight. The gold plating of the main logic board is made with 100% recycled gold.
19. This recycled plastic accounts for at least 1% of the product based on product weight. This does not include plastics in printed circuit boards, labels, cables, connectors, electronic components and modules, optical components, electrostatic discharge (ESD) components, electromagnetic interference (EMI) components, films, coatings and adhesives.
20. Solder paste is made with multiple materials and contains at least 85% tin.
21. Recycled tungsten is at least 55% of the haptics engine weight. Recycled copper is at least 3% of the haptics engine weight.
22. Google continues to restrict arsenic content in glass, mercury in displays, and heavy metals (lead, cadmium, and mercury) in batteries as listed in [Google's Restricted Substances Specification](#).
23. ECOLOGO® Certified products are certified to ECOLOGO® standards for reduced environmental impact. For more information, visit [ul.com/el](#). ECOLOGO-registered in the US only.
24. Pixel 11 is designed with approximately 39% recycled content across its plastic parts. This does not include plastics in printed circuit boards, labels, cables, connectors, electronic components and modules, optical components, electrostatic discharge (ESD) components, electromagnetic interference (EMI) components, films, coatings and adhesives.