Nest Wifi Pro
Product environmental report

Model G6ZUC
Introduced October 2022
Environmental sustainability at Google

At Google, operating in an environmentally sustainable way has been a core value from the beginning. As our business has evolved to include the manufacturing of electronic products, we’ve continually expanded our efforts to improve each product’s environmental performance and minimize Google’s impact on the world around us.

This report details the environmental performance of the Nest Wifi Pro over its full life cycle, from design and manufacturing through usage and recycling.

Product highlights

The Nest Wifi Pro is designed with the following key features to help reduce its environmental impact:

- PVC-free¹
- Brominated Flame Retardant (BFR)-free¹
- Made with over 60% recycled materials based on product weight
- 96% plastic-free packaging²
- Power Adapter with Level VI efficiency rating³
Greenhouse Gas (GHG) emissions

The production, transportation, use, and recycling of electronic products generate GHG emissions that can 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.

Estimated GHG emissions for Nest Wifi Pro assuming four years of use: 130 kg CO₂e

<table>
<thead>
<tr>
<th>Stage</th>
<th>Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>12%</td>
</tr>
<tr>
<td>Transportation</td>
<td>1%</td>
</tr>
<tr>
<td>Customer Use</td>
<td>86%</td>
</tr>
<tr>
<td>Recycling</td>
<td>1%</td>
</tr>
</tbody>
</table>

Energy efficiency

The Nest Wifi Pro uses an energy efficient DOE Level VI power adapter.³

<table>
<thead>
<tr>
<th>Mode</th>
<th>Power Adapter Efficiency</th>
<th>115 V, 60 Hz</th>
<th>230 V, 50 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power adapter average efficiency</td>
<td>89.1%</td>
<td>88.5%</td>
<td></td>
</tr>
<tr>
<td>Active mode</td>
<td>8.88 W</td>
<td>9.26 W</td>
<td></td>
</tr>
<tr>
<td>Idle mode</td>
<td>6.01 W</td>
<td>6.21 W</td>
<td></td>
</tr>
<tr>
<td>Annual energy use estimate</td>
<td>54 kWh</td>
<td>56 kWh</td>
<td></td>
</tr>
<tr>
<td>Annual cost of energy estimate</td>
<td>US$8.61</td>
<td>€14.14</td>
<td></td>
</tr>
</tbody>
</table>
Material use

Nest Wifi Pro is designed to be light and compact. Minimizing the size and weight of the Nest Wifi Pro allows materials to be used more efficiently, thereby reducing the energy consumed during production and shipping as well as minimizing the amount of packaging.

Materials used in Nest Wifi Pro

Total materials: 595 g

- Aluminum: 314 g
- Steel: 192 g
- Plastic: 179 g
- Electronics: 41 g
- Other: 22 g

Recycled materials

Nest Wifi Pro is made with over 60% recycled materials based on product weight.

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 Nest Wifi Pro 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 Packaging Directive restrictions on lead, mercury, cadmium, and hexavalent chromium in packaging
Voluntary substance restrictions

Nest Wifi Pro also meets the following voluntary substance restrictions:

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

Packaging

Packaging for the Nest Wifi Pro uses 96% plastic-free materials. The greyboard used in the box base and lid is made with 100% recycled content. We have designed the Nest Wifi Pro packaging to minimize its weight and volume, which helps conserve natural resources and allows more devices to be transported in a single shipping container.

Ethical sourcing

Google and its subsidiaries are committed to ensuring that working conditions in our operations and in our supply chains are safe, that all workers are treated with respect and dignity, and that business operations are environmentally responsible and ethically conducted. Learn more about our expectations for manufacturing partners in the Google Supplier Code of Conduct, our 2022 Responsible Supply Chain Report, and our Conflict Minerals Policy.

Learn more

For more information about our environmental sustainability initiatives—including case studies, white papers, and blogs—please see our Sustainability website and our 2022 Environmental Report.

Learn how to recycle your used device in the Google Store Help section of our website.
Endnotes


2. Based on U.S. retail packaging weight with adhesive materials excluded.

3. Level VI is the highest available efficiency rating for power adapters as defined in the International Efficiency Marking Protocol for External Power Supplies Version 3.0.

4. 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 recycling of the product, in-box accessories, and packaging.

5. Average efficiency of power adapter when input and output power is measured at 25%, 50%, 75%, and 100% of rated output current and averaged and tested at the highest rated output voltage of 10 V. Tested in accordance with the U.S. Department of Energy Uniform Test Method for Measuring the Energy Consumption of External Power Supplies.

6. Estimated energy use based on 5 devices continuously and simultaneously connected, with 175 GB data transferred weekly.

7. The average residential cost of energy for U.S. households is $0.16 per kWh (source: U.S. Energy Information Agency Aug 2022 report).

8. The average household cost of energy for consumers in the EU-27 was €0.25 per kWh in the first half of 2022 (source: Eurostat Statistics Explained).

9. Product material masses are for the Nest Wifi Pro only, excluding packaging and accessories. For the U.S. configuration, an additional 147 g of electronic accessories can be included in-box.

10. 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.