



iPod touch (7th Generation) Environmental Report



Date introduced
May 28, 2019

Environmental Status Report

iPod touch is designed with the following features to reduce environmental impact:

- Arsenic-free display glass
- Mercury-free LED-backlit display
- Brominated flame retardant-free
- PVC-free
- Beryllium-free
- Recyclable aluminum enclosure

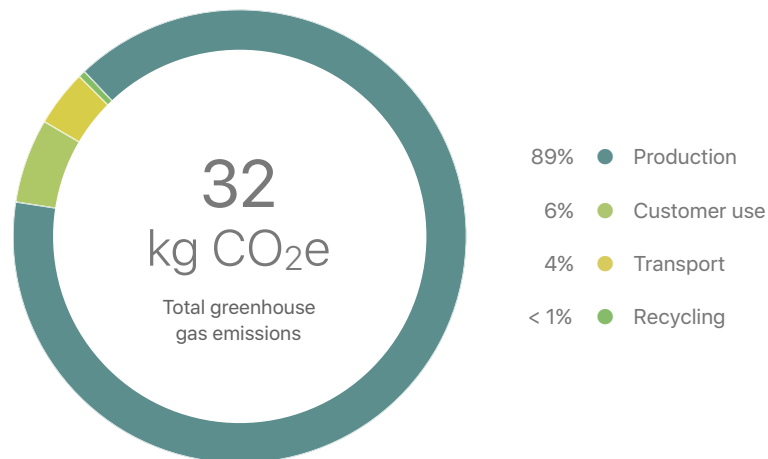
Apple and the Environment

Apple believes that improving the environmental performance of our business starts with our products. The careful environmental management of our products throughout their life cycles includes controlling the quantity and types of materials used in their manufacture, improving their energy efficiency, and designing them for better recyclability. The information below details the environmental performance of iPod touch as it relates to climate change, energy efficiency, material efficiency, and restricted substances.¹

Climate Change

Greenhouse gas emissions have an impact on the planet's balance of land, ocean, and air temperatures. Most of Apple's corporate greenhouse gas emissions come from the production, transport, use, and recycling of our products. Apple seeks to minimize greenhouse gas emissions by setting stringent design-related goals for material and energy efficiency. The chart below provides the estimated greenhouse gas emissions for iPod touch over its life cycle.²

Greenhouse Gas Emissions for iPod touch





Battery chemistry

iPod features a lithium-ion polymer battery chemistry that is free of lead, cadmium, and mercury.

Energy Efficiency

iPod touch uses power-efficient components and software that intelligently manage power consumption. The following table details the energy efficiency of the Apple USB Power Adapter.

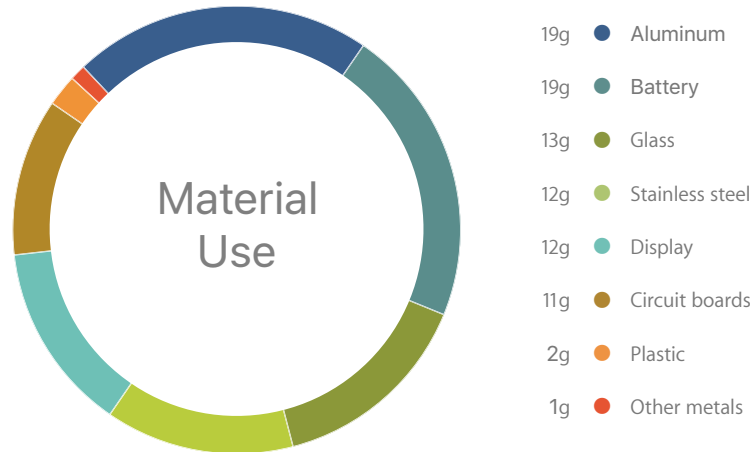
Energy Efficiency of the Apple USB Power Adapter

Mode	100V	115V	230V
Power adapter, no-load	0.014W	0.014W	0.012W
Power adapter efficiency	74.3%	74.3%	73.1%

Material Efficiency

Apple’s ultracompact product and packaging designs lead the industry in material efficiency. Reducing the material footprint of a product helps maximize shipping efficiency. It also helps reduce the energy consumed during production and material waste generated at the end of the product’s life. The iPod touch enclosure is made of aluminum and other materials highly desired by recyclers. The chart below details the materials used in this model.³

Material Use for iPod touch





The U.S. retail packaging for iPod touch consumes 32 percent less volume, and is 38 percent lighter than the first-generation iPod touch packaging.

Packaging

iPod touch packaging is extremely material efficient, allowing more units to be transported in a single shipping container. The following table details the materials used in iPod touch packaging.

Packaging Breakdown for iPod touch

Material	Retail box	Retail and shipping box
Paper (corrugate, paperboard, paperfoam)	13g	122g
Polycarbonate	69g	69g
Other plastics	3g	3g

Restricted Substances

Apple has long taken a leadership role in restricting harmful substances from our products and packaging. As part of this strategy, all Apple products comply with the strict European Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, also known as the RoHS Directive. Examples of materials restricted by RoHS include lead, mercury, cadmium, hexavalent chromium, and the brominated flame retardants (BFRs) PBB and PBDE. iPod touch goes even further than the RoHS Directive by incorporating the following more aggressive restrictions:

- Arsenic-free display glass
- Mercury-free LED-backlit display
- BFR-free
- PVC-free
- Beryllium-free



Recycling

When products are used longer, fewer resources are extracted from the earth. That’s why we launched Apple Trade In—it offers customers a seamless way to return their old devices to Apple. Customers can trade in eligible devices for an Apple Store Gift Card.⁴ If a device is not eligible for credit, we’ll recycle it for free. We also offer and participate in product take-back and recycling programs for 99 percent of the countries where we sell products—and we hold our recyclers to high standards. Our efforts to keep harmful substances out of our products also mean our materials are safer to recover and reuse. For more information on how to recycle your products at end of life, visit: <https://www.apple.com/shop/trade-in>.

Definitions

Greenhouse gas emissions: Estimated emissions are calculated in accordance with guidelines and requirements as specified by ISO 14040 and ISO 14044. Calculation includes emissions from the following life-cycle phases contributing to Global Warming Potential (GWP 100 years) in CO₂ equivalency factors (CO₂e):

- **Production:** Includes the extraction, production, and transportation of raw materials, as well as the manufacture, transport, and assembly of all parts and product packaging.
- **Transport:** Includes air and sea transportation of the finished product and its associated packaging from the manufacturing site to regional distribution hubs. Transport of products from distribution hubs to the end customer is modeled using average distances based on regional geography.
- **Customer use:** Apple conservatively assumes a three-year period for power use by first owners. Product use scenarios are based on historical customer use data for similar products, collected anonymously. Geographic differences in the power grid mix have been accounted for at a regional level.
- **Recycling:** Includes transportation from collection hubs to recycling centers and the energy used in mechanical separation and shredding of parts.

Energy efficiency terms: The energy efficiency values for the Apple USB Power Adapter are based on the following conditions:

- **Power adapter, no-load:** Condition in which the Apple USB Power Adapter is connected to AC power, but not connected to iPod touch.
- **Power adapter efficiency:** Average of the power adapter’s measured efficiency when tested at 100 percent, 75 percent, 50 percent, and 25 percent of the power adapter’s rated output current.

Restricted substances: Apple defines a material as BFR-free and PVC-free if it contains less than 900 parts per million (ppm) of bromine and of chlorine. Apple defines a material as beryllium-free if it contains less than 1000 parts per million (ppm) of beryllium.

1. Product evaluations based on U.S. configurations of iPod touch (7th generation) with 32GB capacity.
2. Greenhouse gas emissions based on evaluation of iPod touch (7th generation) with 32GB capacity.
3. Excludes Apple Lightning to USB Cable and Apple USB Power Adapter. Mass will vary by configuration.

Configuration	Greenhouse Gas Emissions
iPod touch 32GB	32 kg CO ₂ e
iPod touch 128GB	38 kg CO ₂ e
iPod touch 256GB	48 kg CO ₂ e

4. Trade-in values will vary based on the condition, year, and configuration of your trade-in device. You must be at least 18 years old to be eligible to trade in for credit or for an Apple Store Gift Card. Not all devices are eligible for credit. More details are available from Apple’s Mac trade-in partner and Apple’s iPhone, iPad, and Apple Watch trade-in partner for trade-in and recycling of eligible devices. Restrictions and limitations may apply. Payments are based on the received device matching the description you provided when your estimate was made. Apple reserves the right to refuse or limit the quantity of any device for any reason. In the Apple Store: Offer only available on presentation of a valid, government-issued photo ID (local law may require saving this information). Value of your current device may be applied toward purchase of a new Apple device. Offer may not be available in all stores. Some stores may have additional requirements.