

Product Carbon Footprint Dashboard

Product: **EcoGadget 3000** (jxzkhtqtps)

Standard: GHG Protocol, System Boundary: Cradle-to-Grave

57.12 kgCO₂e

Total Footprint

57.12 kgCO₂e

Carbon Intensity

57.12 kgCO₂e/unit

Top Material Hotspot

Aluminum Frame (12.0 kgCO₂e)

Primary Emission Scope

Scope 3 (~99.9% of total)

Lifecycle Stage Breakdown

Materials Acquisiti	47.68%
Transport & Dist.	28.16%
Use Phase	24.51%
Manufacturing	0.52%
End-of-Life	0.07%

Material Carbon Impact Breakdown

Aluminum Frame	44.05%
Lithium-ion Batter	27.53%
PCB	20.19%
Plastic Housing	8.22%

Highlights & Carbon Hotspots

- ✓ Materials Acquisition & Pre-processing is the largest hotspot, contributing **47.7%** of the total PCF.
- ✓ **Last-mile delivery** is a significant single contributor within transport (15.0 kgCO₂e).
- ✓ The Use Phase contributes **24.5%**, a notable impact over the product's 7-year lifespan.

Recommendations for Reduction

- **Material Optimization:** Explore lower-carbon materials for the aluminum frame and battery, or source from verified low-carbon suppliers.
- **Supply Chain Logistics:** Optimize transport routes and modes, especially for last-mile delivery. Consider electric vehicles or shipment consolidation.
- **Use Phase Efficiency:** Further enhance product energy efficiency and educate users on sustainable energy sourcing.
- **Circular Economy Initiatives:** Expand and promote the active Product Take-back Program to maximize recycling, refurbishment, and reuse.