

carboncalcpcf.com

Product Carbon Footprint Dashboard

Product: **ziliyozokh** Total PCF: **21.56 kg CO2e**

Total Footprint

21.56 kg CO2e

Carbon Intensity

21.56 kg CO2e / unit

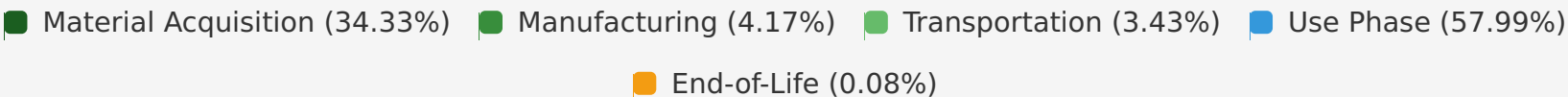
Top Material Hotspot

Aluminum Casing (3.5 kg CO2e)

Primary Emission Scope

Scope 3 (95.93%)

Lifecycle Stage Breakdown



Top Material Impacts

Aluminum Casing	3.5 kg CO2e
Circuit Board (PCB)	1.5 kg CO2e
Lithium-ion Battery	1.5 kg CO2e
Plastic Housing (ABS)	0.6 kg CO2e
Copper Wire	0.2 kg CO2e
Packaging (Cardboard)	0.1 kg CO2e

Key Insights & Hotspots

- Use Phase Dominance:** Accounts for 57.99% of the total PCF, driven by the product's estimated energy consumption over its 5-year lifespan.
- Material Impact:** Material Acquisition & Production contribute 34.33%, with Aluminum Casing being the largest single material contributor (3.5 kg CO2e).
- Scope 3 Importance:** The vast majority (95.93%) of emissions fall under Scope 3, highlighting the critical role of the entire value chain in the product's footprint.

How to Reduce ziliyozokh's Carbon Footprint

- **Enhance Energy Efficiency:** Redesign the product to significantly reduce energy consumption during its 5-year use phase.
- **Source Sustainable Materials:** Prioritize lower-carbon alternatives or recycled content for high-impact materials like aluminum.
- **Improve Circularity:** Implement and promote robust take-back and recycling programs to minimize end-of-life emissions.
- **Optimize Logistics:** Investigate greener transportation options and more efficient routing for both raw material inbound and product outbound journeys.
- **Extend Product Lifespan:** Focus on product durability and repairability to reduce the frequency of replacement and associated emissions.