

html

carboncalcpcf.com

Product Carbon Footprint Dashboard

Product: sstdzxxmix by utxzmtfwos

Total PCF: 38.72 kg CO₂e

System Boundary: factory_gate (modified cradle-to-grave) | Standard: GHG Protocol

Total Carbon Footprint

38.72 kg CO₂e

Carbon Intensity

38.72 kg CO₂e/unit

Top Material Hotspot

Aluminum Enclosure

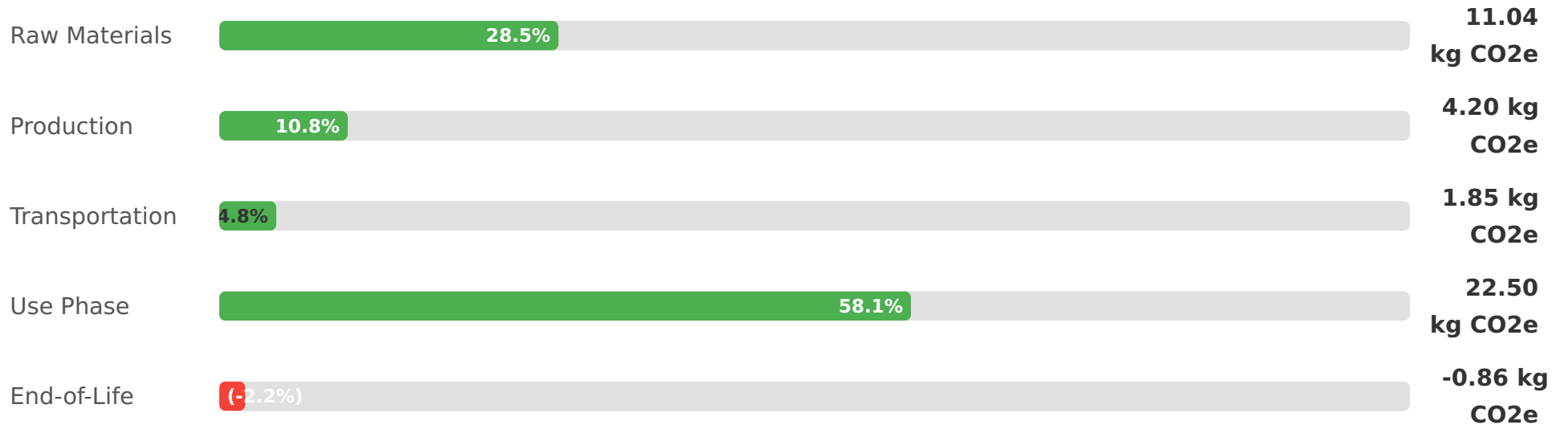
(6.38 kg CO₂e)

Primary Emission Scope

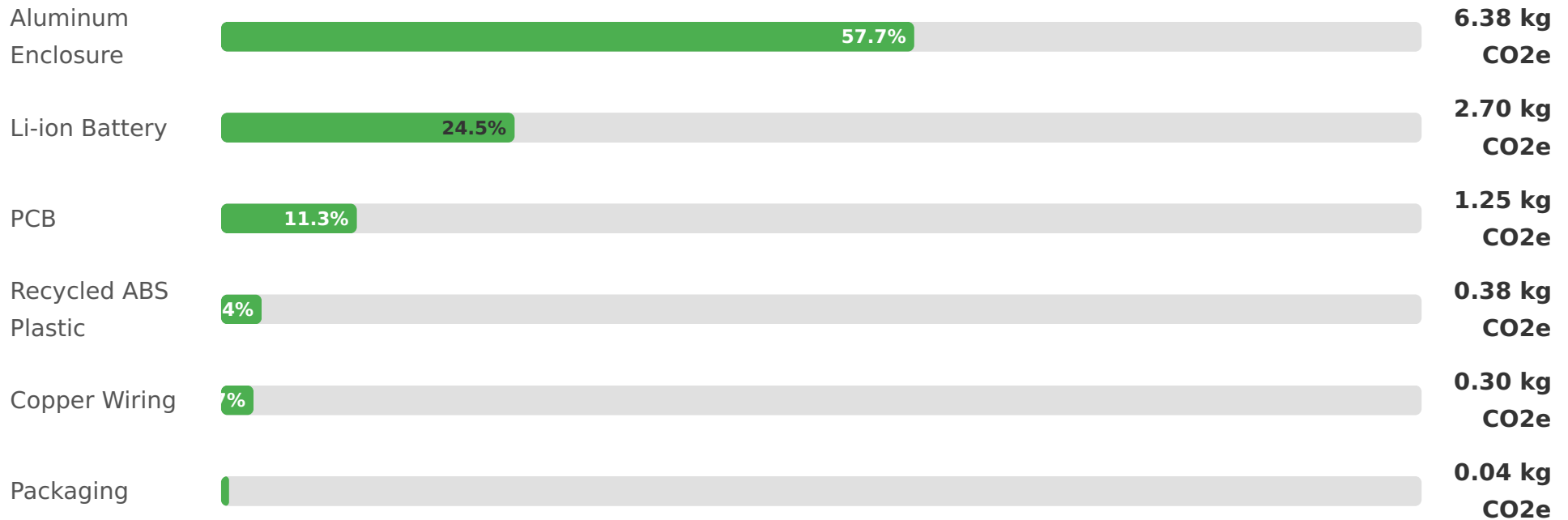
Scope 3 (Use Phase)

(58.1% of total)

Lifecycle Stage Breakdown



Top Material Carbon Impact (from 11.04 kgCO₂e total)



Highlights: Key Emission Hotspots

- **Use Phase Dominance:** The product's operational use phase is the most significant contributor, accounting for 58.1% of its total carbon footprint.
- **Material Impact:** Raw material acquisition, particularly for the aluminum enclosure and lithium-ion battery, contributes substantially at 28.5%.
- **Circular Economy Benefit:** A high recyclability rate (75%) results in a net carbon credit during the End-of-Life stage, positively reducing the overall footprint.

Action Plan: Recommendations for Reduction

- **Enhance Energy Efficiency:** Prioritize R&D to significantly reduce energy consumption during the product's use phase.
- **Boost Material Circularity:** Increase recycled content and strengthen take-back programs for high-impact components.
- **Increase Renewable Energy Use:** Further increase renewable energy sourcing at the China manufacturing facility beyond 60%.
- **Engage Supply Chain:** Collaborate closely with suppliers to identify and reduce emissions associated with raw material production.