

Product Carbon Footprint Dashboard **33.110 kg CO₂e**

Product: **hzmowtdef**

Standard: GHG Protocol | Production Country: China

Total PCF

Total Footprint

33.11 kg CO₂e

Per functional unit (1.0 unit)

Carbon Intensity

33.11 kg CO₂e/unit

Aligned with system boundary

Top Material Hotspot

Aluminium Casing

2.125 kg CO₂e (43.18% of material impact)

Primary Emission Scope

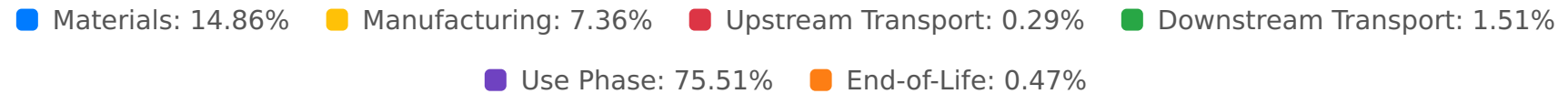
Scope 3 (Use Phase)

Accounts for 75.51% of total PCF

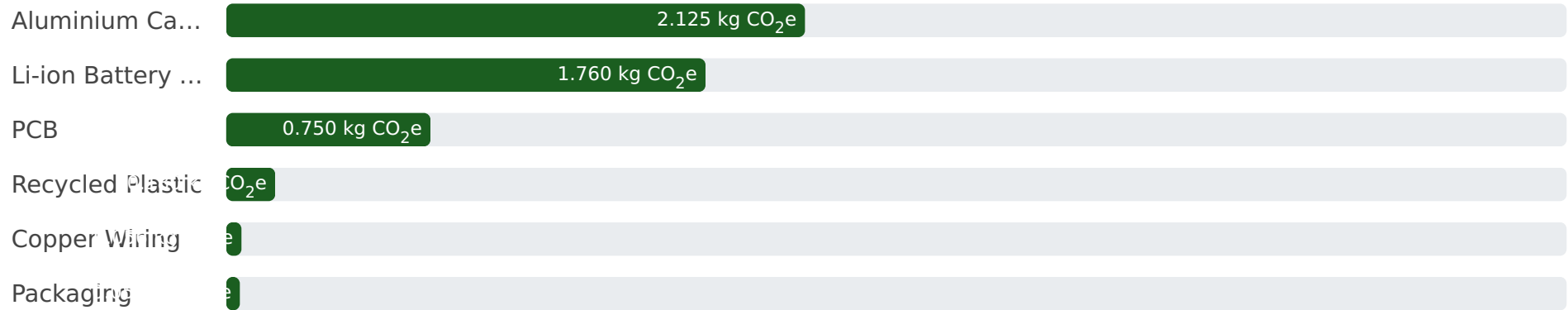
Lifecycle Stage Breakdown

75.51%

Use Phase



Top Material Carbon Impact



Total Material Carbon: 4.921 kg CO₂e

Key Highlights & Insights

- ● **Use Phase Dominance:** The product's operational life accounts for 75.51% of its total carbon footprint, highlighting energy efficiency during use as the primary area for reduction.
- ● **Material Impact Significance:** Materials acquisition and pre-processing are the second largest contributor (14.86%), with Aluminium Casing and Lithium-ion Battery Pack being major hotspots.
- ● **Mitigated Manufacturing Emissions:** High renewable energy usage (75%) at the manufacturing site already significantly reduces the production-related emissions (7.36%).

Recommendations for Carbon Reduction

- ● **Optimize Use Phase:** Invest in R&D for enhanced energy efficiency during operation and explore smart features to reduce standby power.
- ● **Material Innovation:** Prioritize recycled content and sustainable sourcing for high-impact components, and engage with suppliers on low-carbon production methods.
- ● **Enhance Circularity:** Strengthen existing take-back programs to maximize collection and ensure high-quality recycling, aiming for circular material loops.