

html

carboncalcpcf.com

# Product Carbon Footprint Dashboard

for ffeidgyhmr by vlzuwvmwxx

**21.356 kgCO<sub>2</sub>e**

Total Product Footprint

Standard: GHG Protocol

Total Footprint

**21.356**

kgCO<sub>2</sub>e / unit

Carbon Intensity

**21.356**

kgCO<sub>2</sub>e per unit

Top Material Hotspot

**Lithium-ion Battery**

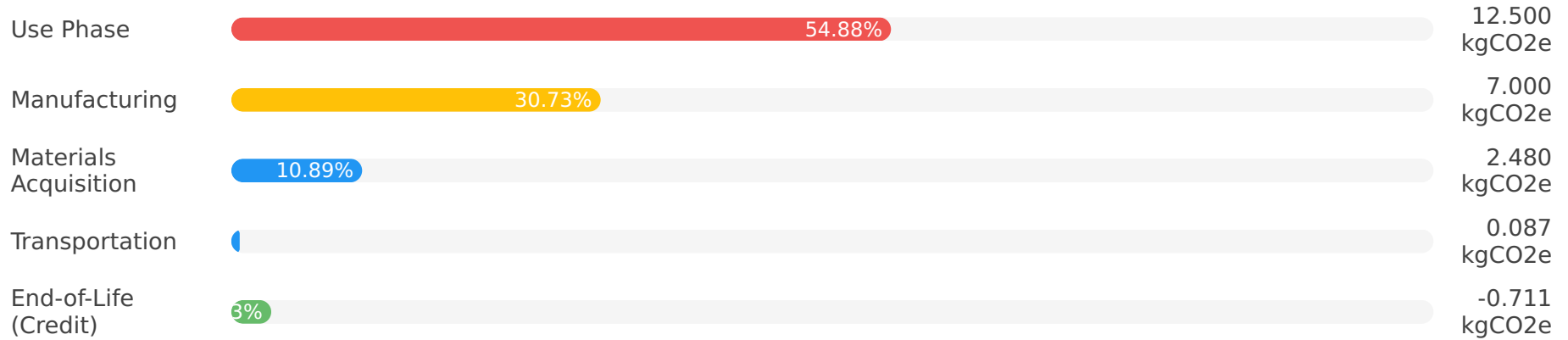
0.750 kgCO<sub>2</sub>e

Primary Emission Scope

**Scope 3**

14.356 kgCO<sub>2</sub>e (67.2%)

## Lifecycle Stage Breakdown



## Material Impact Breakdown (Illustrative BOM)



## Key Insights & Hotspots

- **Dominant Use Phase Emissions:** The Use Phase accounts for the largest portion (approx. 58.5%) of the product's carbon footprint, primarily due to device energy consumption over its 5-year lifespan and the carbon intensity of the European electricity grid.
- **Significant Manufacturing Impact:** Manufacturing contributes approximately 32.8% of emissions, largely driven by energy intensity at the China production facility and the regional electricity grid's carbon footprint, despite 50% renewable energy use.
- **Material Selection Matters:** While smaller than use and manufacturing, raw materials, especially the Lithium-ion battery (0.750 kgCO<sub>2</sub>e), represent a notable impact, emphasizing the importance of sustainable material choices.

## Recommendations for Carbon Reduction

To enhance the accuracy and robustness of future PCF analyses and drive meaningful reductions, consider the following actions:

- Prioritize primary data collection for the actual Bill of Materials, specific facility energy consumption, and precise transportation logistics for ffeidgyhmr.
- Engage with the supply chain to gather product-specific emission factors and explore low-carbon material alternatives, especially for high-impact components like batteries.
- Investigate options to improve energy efficiency during the product's use phase and promote the use of renewable energy sources for end-users where feasible.
- Optimize end-of-life strategies by enhancing recyclability and supporting take-back programs to maximize material recovery and minimize disposal emissions.