

Product Carbon Footprint

Product: tvsdmqhupd

 carboncalcpcf.com

Total
Footprint:

29.09 kg
CO2e

Total Product Footprint

29.09 kg CO₂e

Carbon Intensity (per kg product)

14.62 kg CO₂e/kg

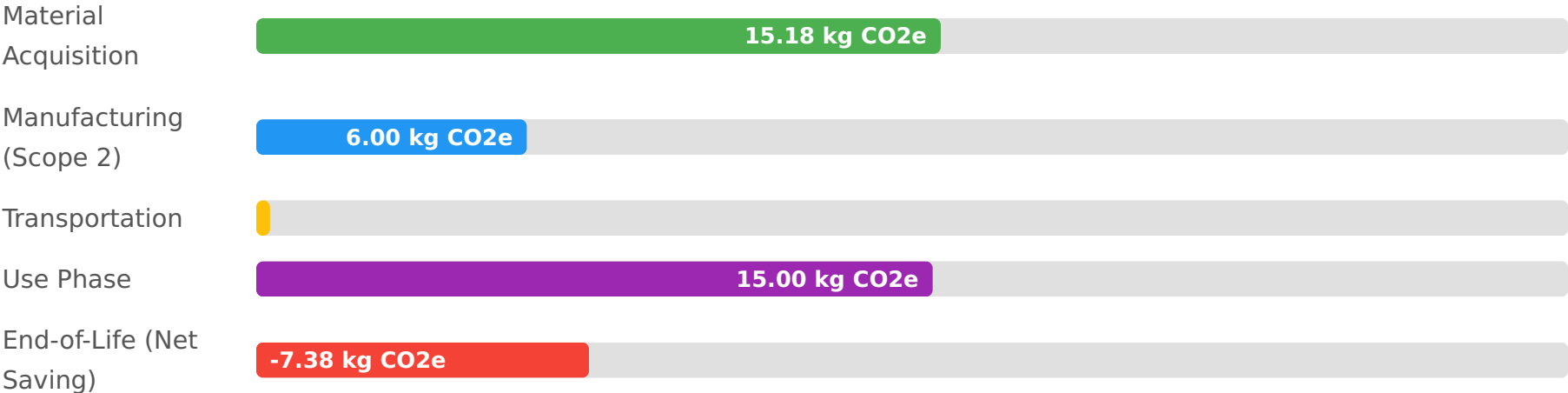
Top Material Hotspot

Aluminum Casing (6.00 kg CO₂e)

Primary Emission Scope

Scope 3 (79.4%)

Carbon Footprint by Lifecycle Stage



Top Material Carbon Hotspots



Key Insights & Hotspots

- **Material Acquisition** (15.18 kg CO₂e) and the **Use Phase** (15.00 kg CO₂e) are the most significant emission contributors to the overall footprint.
- **Scope 3 emissions** constitute 79.4% of the total footprint, highlighting the critical role of supply chain and downstream lifecycle impacts.
- An active **End-of-Life (EoL) program** provides substantial carbon savings (-7.38 kg CO₂e), significantly offsetting upstream emissions and showcasing circularity benefits.

Recommended Actions

- **Optimize Material Sourcing:** Investigate lower-carbon alternative materials or those with higher recycled content, particularly for aluminum and PCB components.
- **Enhance Product Energy Efficiency:** Implement design improvements to reduce energy consumption during the product's operational use phase by the end-user.
- **Boost Renewable Energy Adoption:** Increase the percentage of renewable energy sources utilized in manufacturing operations at the production facility in China.
- **Strengthen Circularity Initiatives:** Further develop and expand take-back programs and recycling infrastructure to maximize end-of-life benefits and material recovery.