

carboncalcpcf.com

Product Carbon Footprint (PCF) Dashboard

Product: pjtuvyzdup | **Company:** xlfttqluvl

Total PCF: 37.0 kg CO₂e

37.0

Total Footprint (kg CO₂e)

37.0

Carbon Intensity (kg CO₂e/unit)

Aluminum Casing

Top Material Hotspot

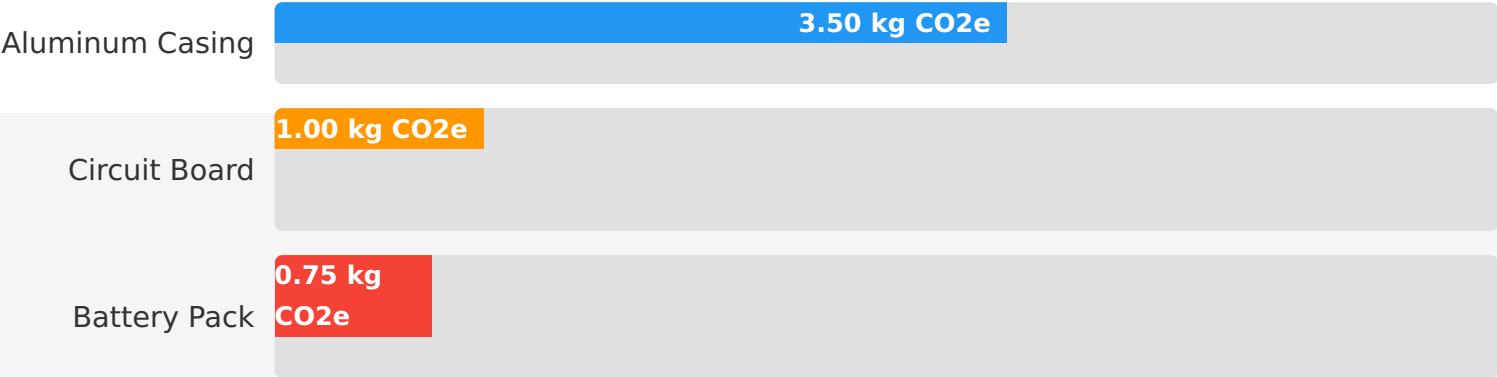
Scope 3 (Use Phase)

Primary Emission Scope

Lifecycle Stage Breakdown

- Use Phase: 81.13% (30.00 kg CO2e)
- Materials Acquisition & Pre-processing: 15.82% (5.85 kg CO2e)
- Production Energy: 2.03% (0.75 kg CO2e)
- Primary Transport: 0.62% (0.23 kg CO2e)
- End-of-Life: 0.36% (0.13 kg CO2e)
- Last-Mile Delivery: 0.04% (0.01 kg CO2e)

Material Carbon Impact



Key Insights & Hotspots

Use Phase Dominance: The product's energy consumption during its 5-year lifespan accounts for ~81% of the total carbon footprint.

Material Impact: Raw materials, particularly aluminum, contribute ~16% to the upstream footprint, indicating areas for sustainable sourcing.

Production Energy: Despite 75% renewable energy use, the remaining non-renewable electricity is a notable contributor (approx. 2%).

Recommendations for Carbon Reduction

1. **Enhance Product Energy Efficiency:** Prioritize design improvements to drastically reduce energy consumption during the use phase.
2. **Sustainable Material Sourcing:** Explore lower-carbon materials, increase recycled content, and partner with decarbonized suppliers.
3. **Renewable Energy Expansion:** Aim for 100% renewable energy for manufacturing operations to eliminate Scope 2 emissions.
4. **Optimize Logistics:** Evaluate transportation routes, modes, and last-mile delivery for efficiency gains.
5. **Strengthen Circularity:** Develop and promote circular economy initiatives for effective take-back and recycling.
6. **Granular Data Collection:** Gather more detailed primary data from suppliers and regional energy grids for improved accuracy in future analyses.