

html

carboncalcpcf.com

Product Carbon Footprint Dashboard for "ofduukduwi"

27.78

kg CO₂e / unit

Total Product Footprint

27.78 kg CO₂e

Carbon Intensity

27.78 kg CO₂e / unit

Top Material Hotspot

Aluminum Casing

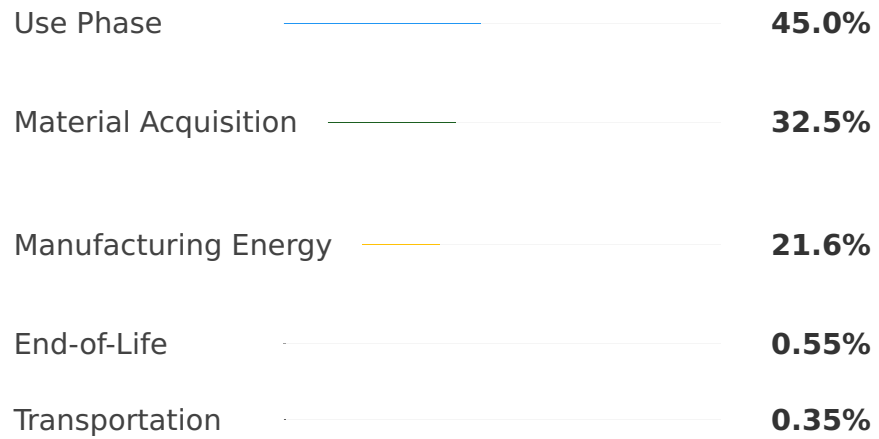
(2.95 kg CO₂e)

Primary Emission Scope

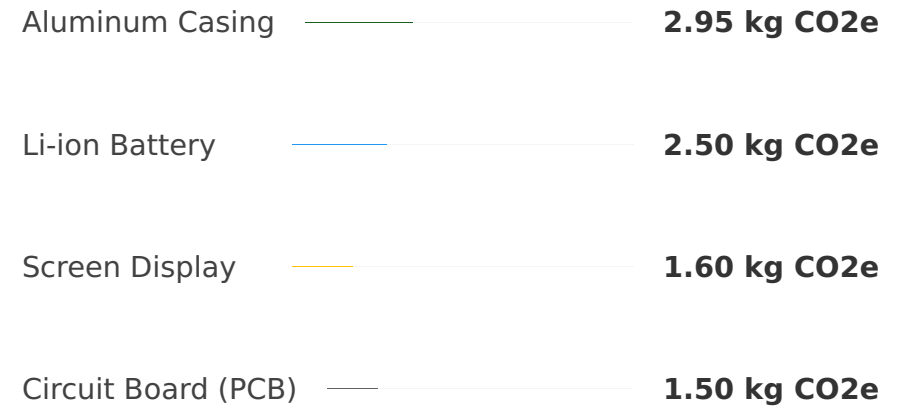
Scope 3

(78.4% of total)

Lifecycle Stage Breakdown



Top Material Carbon Impact



Key Emission Hotspots

- **Use Phase** accounts for the largest portion (45.0% of total PCF), primarily driven by the product's energy consumption over its lifespan and the assumed average European electricity grid mix.
- **Material Acquisition** is a significant contributor (32.5% of total PCF), especially for energy-intensive electronic components (PCB, Battery, Screen Display) and aluminum casing production.
- **Manufacturing Energy** (21.6% of total PCF) remains a notable hotspot in China, despite 50% renewable energy usage, due to the carbon intensity of the remaining grid electricity mix.

Recommendations for Reduction

- 1. Use Phase Optimization:** Develop more energy-efficient product designs and educate consumers on sustainable energy sourcing for product use.
- 2. Sustainable Material Sourcing:** Prioritize suppliers with lower-carbon manufacturing processes and higher recycled content for aluminum, electronic components, and batteries.
- 3. Renewable Energy Procurement:** Increase the percentage of renewable energy used in the manufacturing facility beyond the current 50% to further reduce Scope 2 emissions.
- 4. Circular Economy Initiatives:** Strengthen and expand take-back and recycling programs to maximize material recovery and reduce end-of-life emissions.
- 5. Data Granularity:** For future analyses, gather primary, product-specific data for all Bill of Materials (BOM) items and precise transportation logs to further reduce uncertainty.