

html

Carbon Footprint Dashboard

carboncalcpcf.com

Product: **zjozuilwlz**

Company: **yqkgzrxhiq**

33.24

kgCO2e / unit
Total Product Carbon Footprint

Total Footprint

33.24

kgCO₂e / unit
Cradle-to-Gate (plus downstream)

Carbon Intensity

16.62

kgCO₂e / kg
Based on 2.0 kg product weight

Top Material Hotspot

5.00

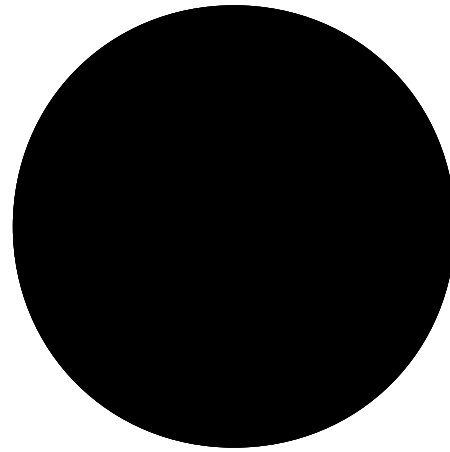
kgCO₂e (Aluminum)
From Bill of Materials

Primary Emission Scope

Scope 3

29.06 kgCO₂e
Value Chain Emissions

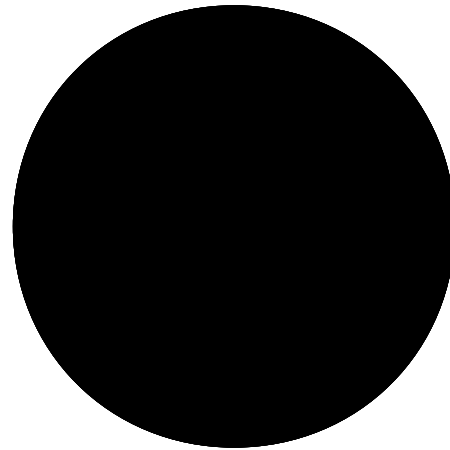
Lifecycle Stage Breakdown



■ Use Phase (63.4%) ■ Materials (23.7%) ■ Production (10.6%) ■ Logistics (2.3%)

Note: End-of-Life phase resulted in a net carbon reduction of -6.20 kgCO₂e/unit due to recycling initiatives.

Material Carbon Impact



■ Aluminum Casing (53.5%) ■ ABS Plastic (30.0%) ■ Circuit Board (10.7%) ■ Packaging (4.8%) ■ Steel Screws (1.1%)

Key Carbon Hotspots

- **Use Phase Dominance:** The product's energy consumption over its 5-year lifespan accounts for the largest share (25.00 kgCO₂e/unit) of the total footprint.
- **Material Footprint:** Embodied emissions from raw materials, particularly aluminum (5.00 kgCO₂e/unit), are significant contributors to the upstream impact.
- **Production Energy:** Despite 50% renewable energy use, purchased electricity for manufacturing in China still contributes 4.18 kgCO₂e/unit, highlighting grid intensity.

Recommended Actions

- ✓ **Enhance Use Phase Efficiency:** Prioritize R&D for reducing product energy consumption and extending lifespan.
- ✓ **Optimize Material Selection:** Increase the use of recycled content (e.g., aluminum, plastics) and sustainably sourced materials.
- ✓ **Boost Renewable Energy:** Aim for 100% renewable electricity at production facilities through direct investment or procurement.
- ✓ **Strengthen Circularity:** Expand take-back and repair programs to maximize material recovery and reduce landfill reliance.