

Carbon Footprint Dashboard

Product: **mettnknygl** by pmkyldykh

carboncalcpcf.com

Total Product Carbon Footprint

86.85 kg CO2e

Functional Unit

1.0 Unit

Carbon Intensity

68.93 kg CO2e/kg

Primary Emission Hotspot

Use Phase

Key Emission Scope

Scope 3 (98.27%)

Lifecycle Stage Breakdown

Use Phase	75.00 kg CO2e (86.36%)
Materials	11.26 kg CO2e (12.96%)
Production Energy (Scope 2)	1.50 kg CO2e (1.73%)
Logistics (Inbound/Outbound)	0.48 kg CO2e (0.55%)
Last-Mile Delivery	0.50 kg CO2e (0.58%)
End-of-Life (Net Credit)	-1.89 kg CO2e (-2.18%)

Material Carbon Impact

Lithium-Ion Battery	5.00 kg CO2e
Aluminum Casing	3.75 kg CO2e
Circuit Board (PCBA)	1.50 kg CO2e
Plastic Housing (ABS)	0.75 kg CO2e
Copper Wire	0.15 kg CO2e

Key Highlights & Hotspots

- The **Use Phase** dominates the product's footprint, contributing **86%** of total emissions (75.00 kg CO2e). This highlights the critical impact of user energy consumption.
- **Material Acquisition** is the second largest contributor (13%), with Lithium-Ion Batteries and Aluminum Casing being significant hotspots.
- A robust **98.27% coverage for Scope 3** emissions ensures a comprehensive value chain assessment, adhering to 2026 GHG Protocol requirements.

Recommendations for Reduction

- **Enhance Energy Efficiency:** Prioritize design improvements to drastically reduce the product's energy draw during its 5-year operational lifespan.
- **Optimize Materials:** Focus on lower-impact alternatives, increased recycled content, and lighter designs, especially for battery and aluminum components.
- **Strengthen Circularity:** Expand take-back and recycling initiatives (like 'rdjyitinxm') to maximize material recovery and explore product-as-a-service models.
- **Engage Supply Chain:** Collaborate with upstream suppliers to identify and mitigate emissions in the production of high-impact components.