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Product Carbon Footprint Dashboard

Product: seosekifdg

Total PCF: 31.66 kg CO₂e

carboncalcpf.com

Key Performance Indicators

TOTAL FOOTPRINT

31.66 kg CO₂e

CARBON INTENSITY

31.66 kg CO₂e/unit

TOP MATERIAL HOTSPOT

**Aluminium Casing
(1.56 kg CO₂e)**

PRIMARY EMISSION SCOPE

Scope 3 - Use Phase

Lifecycle Stage Breakdown

Materials (S3, Cat 1)	13.41% (4.25 kg CO2e)
Production (S1 & S2)	5.53% (1.75 kg CO2e)
Logistics (S3, Cat 4 & 9)	0.12% (0.04 kg CO2e)
Use Phase (S3, Cat 11)	80.55% (25.50 kg CO2e)
End-of-Life (S3, Cat 12)	0.39% (0.12 kg CO2e)

Material Carbon Impact Breakdown

Aluminium Casing	36.72% (1.56 kg CO2e)
Printed Circuit Board (PCB)	28.25% (1.20 kg CO2e)
Lithium-ion Battery	21.19% (0.90 kg CO2e)
Recycled Plastic Shell	11.77% (0.50 kg CO2e)
Packaging (Cardboard)	2.07% (0.09 kg CO2e)

Highlights: Emission Hotspots

- **Use Phase (80.55%):** The product's energy consumption over its 5-year lifespan is the largest contributor to its carbon footprint, emphasizing the need for energy-efficient design and user behavior.
- **Purchased Goods & Services (13.41%):** Raw materials significantly impact the PCF, particularly Aluminium Casing, PCB, and Lithium-ion Battery, highlighting material selection and supplier sustainability importance.
- **Manufacturing Energy (5.53%):** Despite 75% renewable energy use, the remaining grid-sourced electricity in China contributes notably to emissions, suggesting further renewable energy integration.

Recommendations: How to Reduce PCF

- **Optimize Use Phase:** Invest in R&D for more energy-efficient product design and educate consumers on sustainable use practices to minimize long-term energy consumption.
- **Enhance Sustainable Sourcing:** Prioritize lower-carbon materials and engage with suppliers for primary emission data. Explore materials with higher recycled content and sustainable production methods.
- **Expand Renewable Energy:** Increase the percentage of renewable energy usage at the China manufacturing facility beyond the current 75% to further reduce Scope 2 emissions.
- **Improve Circular Economy:** Enhance existing take-back programs and innovative end-of-life solutions to maximize recyclability and material recovery, potentially generating carbon credits.
- **Improve Data Quality:** Implement robust systems for collecting primary activity data across the entire value chain to meet enhanced Scope 3 data transparency requirements for 2026 and beyond.