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Product Carbon Footprint for "rqmusrwrlw"

Total PCF: 24.52 kgCO2e

per unit

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Total Footprint

24.52 kgCO2e

(Net emissions per 1.0 unit)

Carbon Intensity

24.52 kgCO2e/unit

(Functional Unit: 1.0 unit)

Top Material Hotspot

Aluminum Alloy Casing

(3.90 kgCO2e for 0.50 kg)

Primary Emission Scope

Scope 3

(Value Chain Emissions)

Key Highlights

Product Use Phase is the dominant emission hotspot, contributing 17.50 kgCO2e (approx. 71% of total PCF).

Raw Material Acquisition & Processing represents a significant upstream impact of 9.40 kgCO2e, with Aluminum Alloy Casing being a top material hotspot.

The high recyclability percentage (80%) and robust take-back programs lead to a substantial avoided emissions credit of -3.06 kgCO2e at End-of-Life, demonstrating strong circularity.

Recommendations for Emission Reduction

Optimize Use Phase Efficiency: Focus on reducing energy consumption during product use through more efficient components or smart energy management features.

Sustainable Material Sourcing: Investigate lower carbon alternatives for high-impact materials like aluminum and battery components, and increase recycled content beyond 80%.

Enhance Circularity: Strengthen take-back and recycling programs, and explore opportunities for refurbishment or remanufacturing to further boost material recovery rates.