

Product Carbon Footprint Dashboard

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Product: ukwwnytldt

Reporting Standard: GHG Protocol

TOTAL PRODUCT PCF
23.78 kg CO₂e

Total Footprint

23.78 kg CO2e

Per 1.0 unit, Cradle-to-Grave

Primary Emission Scope

Scope 3

98.78% of total emissions

Top Material Hotspot

Aluminum Alloy

6.00 kg CO2e (25.2% of total)

Production Country

China

Final manufacturing location

Lifecycle Stage Breakdown

Use Phase	52.6% (12.50 kg CO2e)
Material Production	45.8% (10.89 kg CO2e)
Manufacturing Energy (Scope 1+2)	1.2% (0.29 kg CO2e)
Transportation & Distribution	0.35% (0.083 kg CO2e)
End-of-Life Treatment	0.06% (0.015 kg CO2e)

Top Material Carbon Impact

Aluminum Alloy Casing	6.00 kg CO2e
Lithium-ion Battery	2.40 kg CO2e
ABS Plastic Components	0.84 kg CO2e
Silicon Microchip	0.75 kg CO2e

Key Highlights

- The **Use Phase** is the largest contributor to the product's carbon footprint, accounting for 52.6% of total emissions.
- **Material Production**, particularly Aluminum Alloy Casing and Lithium-ion Battery, is the second major hotspot, making up 45.8% of emissions.
- **Scope 3 emissions dominate** the footprint, representing 98.78% of the total, underscoring the importance of value chain engagement.

Recommendations for Emission Reduction

- 1. Optimize Use Phase Energy Efficiency:** Redesign 'ukwwnytltdt' to significantly lower energy consumption during its lifespan through more efficient components, smart energy management, or extended product durability.
- 2. Sustainable Material Sourcing:** Explore alternative materials with lower inherent carbon footprints, increase recycled content, and collaborate with suppliers to reduce their upstream emissions.
- 3. Enhance Circularity:** Further develop and promote take-back programs to maximize recycling and reuse of components, aiming to exceed the current 70% recyclability by designing for disassembly and repairability.
- 4. Decarbonize Manufacturing Operations:** Increase renewable energy usage at production facilities beyond the current 50% to further reduce Scope 2 emissions.
- 5. Optimize Logistics:** Explore more efficient transport routes, consolidate shipments, and consider lower-emission transport modes where feasible.

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