

Product Carbon Footprint Dashboard

Product: syxnrsutqk | **Quantity:** 1.0 unit | **Standard:** GHG Protocol

Company: edgxsrdzi | **Production Country:** China

Total Footprint

35.25 kgCO₂e

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35.25 kgCO₂e

per unit of syxnrsutqk

Carbon Intensity

35.25 kgCO₂e

per unit produced

Top Material Hotspot

Aluminum Casing

3.75 kgCO₂e (48.8% of material impact)

Primary Emission Scope

Scope 3

34.58 kgCO₂e (98.1% of total)

Lifecycle Stage Breakdown

Contribution to total carbon footprint

Use Phase	26.25 kgCO2e (74.48%)
Materials Acquisition & Processing	7.69 kgCO2e (21.81%)
Production Energy (Scope 2)	0.67 kgCO2e (1.90%)
Upstream Transportation	0.40 kgCO2e (1.13%)
End-of-Life Treatment	0.19 kgCO2e (0.54%)
Downstream Transportation	0.05 kgCO2e (0.14%)

Material Carbon Impact

Contribution of materials to upstream emissions

Aluminum Casing	3.75 kgCO2e (48.76%)
Lithium Battery	1.50 kgCO2e (19.51%)
Plastic Enclosure	0.90 kgCO2e (11.70%)
Circuit Board	0.80 kgCO2e (10.40%)
Electronic Components (Misc)	0.50 kgCO2e (6.50%)
Packaging Cardboard	0.24 kgCO2e (3.12%)

Key Insights

- The **Use Phase** accounts for the vast majority (**74.5%**) of the total carbon footprint, driven by the product's 7-year lifespan and 15 kWh/year energy consumption.
- **Materials Acquisition & Processing** is the second largest hotspot at **21.8%**, with Aluminum Casing and Lithium Battery being significant contributors.
- Despite 60% renewable energy use in production, increasing this further could mitigate the **1.9% Production Energy (Scope 2)** emissions, offering direct control for edgxszrdzi.

Action Plan: How to Reduce Carbon Footprint

- **Optimize Use Phase:** Prioritize R&D for enhanced energy efficiency of syxnrsutqk during its operational lifespan and promote energy-saving user behaviors.
- **Material Decarbonization:** Explore and integrate lower-embodied-carbon alternatives for key components like the aluminum casing and lithium battery.
- **Increase Renewable Energy Sourcing:** Expand the current 60% renewable energy share at production facilities to further reduce Scope 2 emissions.
- **Enhance Circularity:** Fully leverage the "Comprehensive product buy-back and refurbishment program" to extend product lifecycles and increase material recirculation, targeting higher than 85% recyclability.
- **Logistics Optimization:** Implement strategies to optimize transport routes, consolidate shipments, and shift to lower-emission freight modes where feasible.