

html

Product Carbon Footprint Dashboard

Product: **nzxtmjfuzu** | Quantity: 1.0 unit | Production Country: China

Standard: GHG Protocol | System Boundary: Cradle-to-Grave (focus on factory_gate)

11.068 kgCO₂e

Total Carbon Footprint

TOTAL FOOTPRINT

11.068 kgCO₂e

CARBON INTENSITY

11.068 kgCO₂e/unit

TOP MATERIAL HOTSPOT

Aluminium Casing (1.600 kgCO₂e)

PRIMARY EMISSION SCOPE

Scope 3

Lifecycle Stage Breakdown

- **Material Acquisition** accounts for ~38.6% of the footprint, with Aluminium Casing, Circuit Board, and Lithium-ion Battery being primary contributors.
- **Production Energy** in China is a significant hotspot at ~39.1%, despite 50% renewable energy usage, due to reliance on the grid mix.
- The **Use Phase** contributes ~24.5% due to the product's 3-year lifespan and energy consumption, even with Europe's lower grid emission factor.

Recommendations for Reduction

- **Supplier Engagement:** Collaborate for primary emission data for high-impact materials (Aluminium, Circuit Boards, Batteries).
- **Renewable Energy Adoption:** Increase renewable energy penetration at manufacturing facilities in China through RECs or PPAs.
- **Energy Efficiency in Use:** Design products for lower energy consumption during the use phase and guide users on efficient operation.
- **Circular Economy Enhancement:** Explore increasing recyclability beyond 70% and strengthen material recovery strategies.