html

carboncalcpcf.com

# Product Carbon Footprint Dashboard

Total PCF for "xnmrktefjo"

## 33.111 kgCO2e/unit

Functional Unit

**1.0**

unit of xnmrktefjo

Production Country

**China**

Region of Origin

Primary Emission Scope

**Scope 3**

Value Chain (30.786 kgCO2e)

Standard Applied

**GHG Protocol**

2026 LSR & 95% Scope 3

## Lifecycle Stage Breakdown

| | |
|---|---|
| Use Phase | **75.32% (25.000 kgCO2e)** |
| Upstream Materials | **17.40% (5.775 kgCO2e)** |
| Production (Scope 1 & 2) | **7.02% (2.325 kgCO2e)** |
| Downstream Logistics | **0.26% (0.088 kgCO2e)** |
| End-of-Life | **Net Credit (-0.077 kgCO2e)** |

## Material Carbon Impact (of 5.775 kgCO2e)

| | |
|---|---|
| Aluminium Alloy Casing | **45.46% (2.625 kgCO2e)** |
| Circuit Board (PCB) | **25.97% (1.500 kgCO2e)** |
| Lithium-ion Battery Pack | **20.78% (1.200 kgCO2e)** |
| Recycled ABS Plastic Housing | **7.27% (0.420 kgCO2e)** |
| Packaging (Recycled Cardboard) | **0.52% (0.030 kgCO2e)** |

## Key Emission Hotspots

- **Use Phase (Approx. 75.5%):** The product's energy consumption during its lifespan is the largest contributor to its carbon footprint.
- **Upstream Materials (Approx. 17.4%):** Production of raw materials, especially Aluminium Alloy Casing and Lithium-ion Battery Pack, significantly impacts the upstream footprint.
- **Manufacturing (Scope 2, Approx. 6.9%):** Purchased electricity for manufacturing, despite renewable energy use, remains a notable emission source.

## Recommendations for Reduction

- **Prioritize Use Phase Efficiency:** Focus on product design for reduced energy consumption and promote energy-saving modes.
- **Optimize Material Selection & Sourcing:** Investigate lower embodied carbon alternatives and source from sustainable suppliers.
- **Increase Renewable Energy Adoption:** Further increase renewable energy usage at manufacturing facilities (e.g., on-site generation, certified RECs).
- **Enhance Circularity:** Leverage existing recyclability, explore design-for-disassembly, and improve take-back programs to extend product lifespan and material recovery.