# Product Carbon Footprint Dashboard

**Product:** gtntrkkwxe

**Company:** wkihzmjxdr

**Standard:** GHG Protocol | **Consultant:** ikwjzgmkrx

## 45.41 kg CO2e

Total Product Footprint

### Total Footprint

## 45.41 kg CO2e

Per 1 unit of gtntrkkwxe

### Carbon Intensity

## 45.41 kg CO2e/unit

Relative to functional unit

### Top Material Hotspot

## Steel Frame

5.5 kg CO2e from material acquisition

### Primary Emission Scope

## Scope 3

~69.89% of total footprint (31.74 kg CO2e)

# Emission Breakdown

## Lifecycle Stage Carbon Impact

| | |
|---|---|
| Materials (Scope 3) | 16.12 kg CO2e (32.05%) |
| Use Phase (Scope 3) | 17.85 kg CO2e (35.49%) |
| Manufacturing (Scope 2) | 13.67 kg CO2e (27.18%) |
| Transportation (Scope 3) | 2.66 kg CO2e (5.29%) |
| End-of-Life (Net Credit) | -4.89 kg CO2e |

## Material Carbon Hotspots

| | |
|---|---|
| Steel Frame | 5.5 kg CO2e (34.12%) |
| Lithium-ion Battery | 5.4 kg CO2e (33.50%) |
| ABS Plastic Casing | 3.72 kg CO2e (23.08%) |
| Circuit Board | 1.5 kg CO2e (9.30%) |

## Key Insights & Highlights

- Materials (32.05%) and Use Phase (35.49%) are the dominant emission hotspots, accounting for over 67% of gross emissions.
- Manufacturing energy emissions are significant but notably mitigated by 60% renewable energy usage at the Chinese facility.
- A robust End-of-Life strategy with 80% recyclability and a take-back scheme results in a substantial net carbon credit of -4.89 kg CO2e.

## Recommendations for Reduction

- **Material Optimization:** Target lower-carbon alternatives for batteries, circuit boards, and steel.
- **Use Phase Decarbonization:** Redesign for lower energy consumption and promote renewable energy use by end-users.
- **Manufacturing Energy Transition:** Further increase renewable energy adoption at the production facility beyond 60%.
- **Logistics Efficiency:** Optimize routes, shift to lower-emission transport modes, and improve load factors.
- **Circular Economy Expansion:** Enhance take-back programs and increase recycled content in new products.