

# Carbon Footprint Dashboard for "tiyglrgooj" 12.50 kg CO<sub>2</sub>e

Product: tiyglrgooj | Standard: GHG Protocol | Boundary: factory\_gate

Total Product Footprint

Carbon Intensity

**12.50**

kg CO<sub>2</sub>e / unit

Top Material Hotspot

**Aluminum Casing**

3.5 kg CO<sub>2</sub>e

Primary Emission Scope

**Scope 3**

11.55 kg CO<sub>2</sub>e (~92.4%)

Production Country

**China**

Factory Gate

### Lifecycle Stage Breakdown

Raw Materials & Pre-processing	48.51% (6.50 kg CO2e)
Use Phase	33.58% (4.50 kg CO2e)
Upstream Transportation	8.96% (1.20 kg CO2e)
Manufacturing (Energy & Process)	7.09% (0.95 kg CO2e)
Downstream Transportation	1.87% (0.25 kg CO2e)
End-of-Life (Credit)	-0.90 kg CO2e

### Material Carbon Impact (Top Contributors)

Aluminum Casing	53.85% (3.5 kg CO2e)
Lithium-ion Battery Pack	23.08% (1.5 kg CO2e)
ABS Plastic Housing	12.92% (0.84 kg CO2e)
Printed Circuit Board (PCB)	9.23% (0.6 kg CO2e)

## Highlights & Key Insights

- ✓ Raw materials and the product's use phase are identified as the primary emission hotspots across the lifecycle.
- ✓ Scope 3 (value chain) emissions constitute approximately 92.4% of the total product carbon footprint, underscoring its critical role.
- ✓ The analysis incorporates detailed BOM, transport, energy, and End-of-Life data, ensuring high coverage for Scope 3 reporting.

## Recommendations for Impact Reduction

- Prioritize **Material Optimization** by exploring lower-carbon alternatives and increasing recycled content.
- Further enhance **Renewable Energy Adoption** in manufacturing and encourage suppliers to follow suit.
- Optimize **Logistics Efficiency** through smarter routes and lower-emission transport modes.
- Extend **Product Lifespan** via design for durability and repairability.
- Improve **Use Phase Efficiency** and educate users on sustainable product operation.
- Strengthen **Enhanced Circularity** initiatives with robust take-back and recycling programs.