

Product Carbon Footprint: ewkyijzgvs

37.97 kg CO2e

Total Footprint per Unit

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37.97 kg CO2e

per 1.0 unit of ewkyijzgvs

Carbon Intensity

37.97 kg CO2e/unit

Based on 1.0 unit quantity

Top Material Hotspot

Aluminum Casing

3.75 kg CO2e (58% of material impact)

Primary Emission Scope

Scope 3

33.55 kg CO2e (88% of total)

Lifecycle Stage Breakdown

Transport (Upstream & Downstream)	15.21 kg CO2e (36.56%)
Use Phase	15.00 kg CO2e (36.06%)
Materials (Purchased Goods)	6.43 kg CO2e (15.44%)
Production Energy (Scope 2)	4.43 kg CO2e (10.64%)
End-of-Life (Gross Impact)	0.54 kg CO2e (1.30%)
End-of-Life (Net Credit from Recycling)	-3.09 kg CO2e
Net Credit	

Material Carbon Impact

Aluminum Casing (0.5 kg)	3.75 kg CO2e (58.37%)
Circuit Board (0.1 unit)	2.00 kg CO2e (31.13%)
Plastic Enclosure (0.2 kg)	0.60 kg CO2e (9.34%)
Packaging Cardboard (0.05 kg)	0.08 kg CO2e (1.17%)

Key Highlights

- Downstream Transportation, especially last-mile delivery, is a significant hotspot, accounting for 15.14 kg CO₂e due to assumed high per-kilometer emissions for small vans.
- The Use Phase of the product contributes 15.00 kg CO₂e, indicating that product energy efficiency and user energy source are critical factors.
- End-of-Life treatment results in a net credit of 3.09 kg CO₂e, thanks to effective recycling and take-back programs, demonstrating positive circular economy impact.

Recommendations for Reduction

- 1 Optimize Downstream Logistics:** Explore more efficient last-mile delivery options, utilize electric vehicles, or collaborate on consolidated shipments to reduce transport emissions.
- 2 Enhance Product Energy Efficiency:** Redesign ewkyijzgvs for lower energy consumption during its use phase, or encourage users to utilize renewable energy sources.
- 3 Sustainable Sourcing:** Prioritize suppliers with lower embedded carbon in their materials, or increase the use of recycled content where feasible.
- 4 Increase Renewable Energy Procurement:** Further increase the percentage of renewable energy used in the production facility to reduce Scope 2 emissions.
- 5 Gather Primary Data:** Systematically collect primary data from suppliers (e.g., exact transport distances and modes, supplier-specific material emission factors) to improve PCF accuracy.