

html

carboncalcpcf.com

Carbon Footprint Dashboard for "unghhygvwy"

Total Product Footprint:

11.95 kg CO₂e

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11.95 kg CO₂e

for 1.0 unit (factory_gate to EoL)

Carbon Intensity

18.38 kg CO₂e / kg

based on approx. 0.65 kg product mass

Top Material Hotspot

Circuit Board

1.50 kg CO₂e impact

Primary Emission Scope

Highlights & Key Findings

- The **Use Phase** is the most significant contributor to the total carbon footprint, accounting for approximately **75%** of emissions, driven by product energy consumption.
- **Material Acquisition** is the second largest hotspot (~21%), with the **Circuit Board** being the primary component impacting this stage due to its high embedded emissions.
- **Production emissions** are notably mitigated by **65% renewable energy usage** at the facility, demonstrating effective operational sustainability efforts.

Action Plan: How to Reduce Footprint

- ✓ **Prioritize Use Phase Optimization:** Invest in R&D for improved energy efficiency during the product's operational life (e.g., low-power components, software optimization).
- ✓ **Material Impact Reduction:** Explore lower-carbon alternative materials for components like the Plastic Casing and Circuit Board, or collaborate with suppliers for emission reductions.
- ✓ **Expand Renewable Energy:** Increase renewable energy adoption further in the production facility and influence similar practices across the upstream supply chain.
- ✓ **Enhance Circularity:** Leverage the "Product take-back scheme" to ensure higher actual recycling rates and explore opportunities for material reuse to boost circularity benefits.
- ✓ **Supplier Engagement:** Engage with material and logistics suppliers to collect more specific primary data, enhancing the accuracy and granularity of Scope 3 reporting.