

html

carboncalpcf.com

Product Carbon Footprint Dashboard

For: rhzxfynok (EcoGadget Pro)

Total PCF: **35.85 kg CO₂e** per unit

Total Footprint

35.85

kg CO2e / unit

Carbon Intensity

35.85

kg CO2e / unit

Top Lifecycle Hotspot

Use Phase

73.23% of total

Primary Emission Scope

Scope 3

Value Chain Emissions

Lifecycle Stage Breakdown

Use Phase	26.25 kg CO2e (73.23%)
Manufacturing Energy	5.40 kg CO2e (15.06%)
Materials Acquisition & Pre-processing	3.26 kg CO2e (9.10%)
Last-Mile Delivery	0.75 kg CO2e (2.09%)
End-of-Life Treatment	0.13 kg CO2e (0.36%)
Transport to Market	0.06 kg CO2e (0.17%)

Material Carbon Impact

Circuit Board	1.50 kg CO2e (46.01%)
Plastic Housing	1.10 kg CO2e (33.74%)
Lithium Battery	0.50 kg CO2e (15.34%)
Packaging Cardboard	0.16 kg CO2e (4.91%)

Highlights - Critical Impacts

- The Use Phase contributes a dominant 73.23% to the total PCF, primarily due to energy consumption during the product's lifespan.
- Manufacturing Energy is the second largest hotspot, accounting for 15.06% of emissions, despite 80% renewable energy use.
- Material acquisition and pre-processing, particularly for the Circuit Board and Plastic Housing, constitute 9.10% of the total footprint.

Action Plan - How to Reduce PCF

- Optimize Use Phase Efficiency: Redesign for lower energy consumption and educate users on efficient product use.
- Enhance Manufacturing Energy: Further increase renewable energy adoption at production facilities.
- Sustainable Material Sourcing: Investigate lower-carbon alternative materials and higher recycled content for components.
- Strengthen Circularity: Continue optimizing take-back programs and explore product refurbishment/reuse opportunities.