Product Carbon Footprint Report by **carboncalcpcf.com**

mwhvwohyfy Carbon Footprint Summary

For 1.0 unit, assessed from Cradle-to-Grave in China (Production) and Europe (Use/EoL).

Total PCF: 15.74 kg CO_2e

Total Carbon Footprint

15.74 kg CO_2e

Carbon Intensity

14.31 kg CO_2e/kg

(Based on 1.1 kg product weight)

Top Material Hotspot

Aluminium Casing

4.0 kg CO_2e (62%)

Primary Emission Scope

Use Phase (Scope 3)

9.05 kg CO_2e (54%)

Lifecycle Stage Breakdown

Material Acquisition & Production	38.82% (6.45 kg CO_2e)
Manufacturing	5.60% (0.93 kg CO_2e)
Transportation & Distribution	1.10% (0.18 kg CO_2e)
Use Phase	54.48% (9.05 kg CO_2e)
End-of-Life (Net Credit)	-0.87 kg CO_2e

Material Carbon Impact

Aluminium Casing	62.02% (4.0 kg CO_2e)
Electronic Components	23.26% (1.5 kg CO_2e)
Recycled ABS Plastic	11.63% (0.75 kg CO_2e)
Packaging Cardboard	3.10% (0.2 kg CO_2e)

Emission Highlights

- The **Use Phase** is the dominant emission hotspot, contributing 54.48% (9.05 kg CO_2e) of the total positive footprint, primarily due to energy consumption over the product's 5-year lifespan.
- **Material Acquisition & Production** accounts for a significant 38.82% (6.45 kg CO_2e), with Aluminium Casing and Electronic Components being key material contributors.
- The product benefits from a **negative End-of-Life footprint** (-0.87 kg CO_2e) thanks to an 80% recyclability percentage and active take-back programs, offsetting some upstream emissions.

Recommendations for Reduction

Enhance Energy Efficiency:	Focus on designing mwhvwohyfy for lower energy consumption during its lifespan to reduce the largest emission hotspot.
Increase Renewable Sourcing:	Further boost the share of renewable electricity used in manufacturing operations in China beyond the current 70%.
Optimize Material Choices:	Investigate alternative materials with lower embodied carbon, focusing on high-impact components like Aluminium and Electronics.
Strengthen Circularity:	Continue and expand take-back and recycling programs, exploring design-for-disassembly to maximize material recovery and further improve EoL credits.