

Product Carbon Footprint for uhprwuvlku

37.43

kg CO2e / unit

TOTAL FOOTPRINT

Lifecycle Stage Breakdown

37.43 kg CO2e

Materials	21.78% (9.17 kg CO2e)
Production Energy	4.42% (1.86 kg CO2e)
Transport	0.12% (0.05 kg CO2e)
Use Phase	73.67% (31.03 kg CO2e)
End-of-Life (Credit)	-4.68 kg CO2e

CARBON INTENSITY

37.43 kg CO2e / unit

TOP EMISSION HOTSPOT

Use Phase (~74% gross)

PRIMARY SCOPE

Material Carbon Impact

Aluminium Casing	80.50% (7.39 kg CO2e)
Electronic PCB	13.08% (1.20 kg CO2e)
Plastic Housing (HDPE)	5.45% (0.50 kg CO2e)
Steel Fasteners	0.96% (0.09 kg CO2e)

Key Highlights

The **Use Phase** of 'uhprwuvlku' is the dominant contributor to its carbon footprint, accounting for approximately 74% of gross emissions due to energy consumption over its 5-year lifespan.

Material sourcing, particularly for Aluminium and Electronic PCBs, represents the second largest hotspot, underscoring the need for low-carbon material alternatives.

A strong **End-of-Life recyclability (70%)** and the company's take-back program provide a significant **carbon credit**, reducing the overall net PCF.

Action Plan: How to Reduce Impact

****Optimize Product Energy Efficiency:**** Invest in R&D to significantly reduce energy consumption during the product's operational use phase.

****Decarbonize Material Supply Chain:**** Engage with suppliers to increase the use of recycled content and source lower-carbon production methods for high-impact materials like Aluminium.

****Enhance Renewable Energy Adoption:**** Increase the percentage of renewable energy used in manufacturing processes beyond the current 40% to minimize Scope 2 emissions.

****Strengthen Circular Economy Initiatives:**** Leverage the existing take-back program to maximize material recovery, promote product longevity, and explore remanufacturing opportunities.