carboncalcpcf.com

Product Carbon Footprint for geeydmiidk

Total PCF: **48.23 kg CO2e** / 1.0 unit

48.23 kg CO2e

Net Total Footprint

For 1.0 unit of geeydmiidk

Use Phase

Primary Emission Hotspot

71.9% of total emissions.

Scope 3

Primary GHG Scope

Dominates with 89.8% (excluding EoL benefits).

Aluminium Casing

Top Material Impact

7.50 kg CO2e from raw materials.

Lifecycle Stage Breakdown

Use Phase	35.00 kg CO2e (72.6%)
Upstream Materials	14.36 kg CO2e (29.8%)
Manufacturing Energy (Scope 2)	4.20 kg CO2e (8.7%)
Logistics (Upstream & Downstream)	0.315 kg CO2e (0.7%)
End-of-Life (Net Benefit)	-5.65 kg CO2e (-11.7%)

Calculated percentages relative to the absolute sum of positive emissions for visualization, with EoL shown as a net benefit.

Material Carbon Impact

Aluminium Casing	7.50 kg CO2e
Circuit Board Assembly	2.50 kg CO2e
ABS Plastic Shell	2.40 kg CO2e
Copper Wire	1.60 kg CO2e
Packaging (Cardboard)	0.36 kg CO2e

Impact of individual materials, normalized against the highest contributor (Aluminium Casing) for visual comparison.

Key Highlights

Use Phase Dominance: The product's energy consumption during its 5-year lifespan is the largest driver of emissions, accounting for 71.9% of the total PCF.

Material Hotspot: Upstream material production, particularly the Aluminium Casing, is the second most significant contributor at 29.5%, highlighting sourcing and design impacts.

Circular Economy Benefits: Strong recycling benefits from End-of-Life treatment result in a net negative contribution of -11.6% to the overall PCF, underscoring the success of circular initiatives.

Action Plan: How to Reduce Emissions

Enhance Use Phase Efficiency: Focus on product redesign for lower energy consumption during active use and explore energy-saving modes or longer product lifespans.

Sustainable Material Sourcing: Prioritize suppliers of lower-carbon aluminium and other high-impact materials, or investigate alternative, less carbon-intensive materials.

Increase Renewable Energy: Further increase the share of renewable energy at manufacturing facilities beyond the current 60% to reduce Scope 2 emissions.

Optimize Logistics: Investigate more efficient and lower-carbon transport modes for both inbound and outbound logistics, particularly for long-distance routes.

Strengthen Circular Programs: Continue to expand and promote take-back, refurbishment, and advanced recycling programs to maximize material recovery and extend product life.

Recommendations derived from the detailed carbon footprint analysis.