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Product Carbon Footprint Dashboard for hzyhgzpzfo

20.861 kg CO2e per unit

Total Footprint

Overall carbon emissions per functional unit.

20.861 kg CO2e

Carbon Intensity

Emissions relative to product mass.

18.14 kg CO2e / kg product

Top Material Hotspot

Material with the highest carbon contribution.

Aluminium Casing (5.0 kg CO2e)

Primary Lifecycle Hotspot

Stage contributing most to emissions.

Use Phase (59.9%)

EoL Carbon Benefit

Avoided emissions from circularity.

-1.495 kg CO2e Offset

Production Country

Location where the product is manufactured.

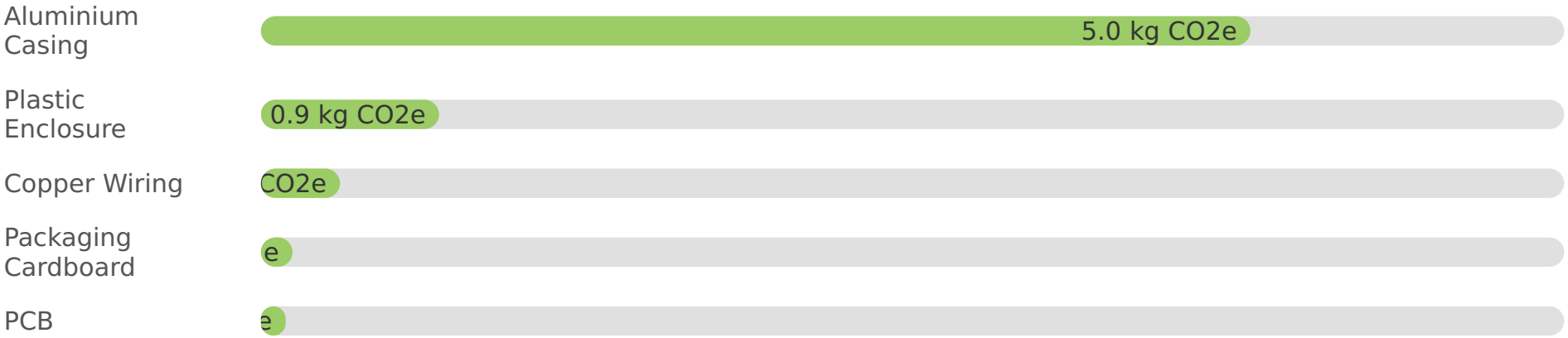
China

Lifecycle Stage Breakdown (Gross Contr ns)

- Materials (Scope 3, Cat 1): 29.45% (6.585 kg CO2e)
- Production (Scope 2): 14.09% (3.150 kg CO2e)
- Logistics (Scope 3, Cat 4 & 9): 0.54% (0.121 kg CO2e)
- Use Phase (Scope 3, Cat 11): 55.91% (12.500 kg CO2e)

Note: Percentages exclude the End-of-Life benefit for a clear breakdown of positive contributions. End-of-Life provides a net reduction of -1.495 kg CO2e.

Material Carbon Impact



Total Material Carbon Impact: 6.585 kg CO2e

Key Insights & Highlights

Use Phase Dominance: The product's energy consumption during its 5-year lifespan accounts for the largest share (~60%) of the total carbon footprint, making it the primary hotspot.

Material Impact: Raw materials, especially the Aluminium Casing, contribute significantly (~31%) to upstream emissions, highlighting opportunities for sustainable material sourcing.

Circular Economy Success: A high recyclability rate (80%) and company-led take-back programs result in a notable net carbon benefit at End-of-Life, reducing the overall footprint.

Action Plan: How to Reduce Carbon Footprint

Enhance Use Phase Efficiency: Prioritize design improvements for hzyhgzpzfo to minimize energy consumption during its operational lifespan.

Sustainable Sourcing: Collaborate with suppliers to procure lower-carbon materials and increase recycled content, especially for high-impact components like aluminium.

Boost Renewable Energy: Increase the share of renewable energy at the manufacturing facility in China, aiming for 100% renewable energy procurement.

Optimize Logistics: Explore more efficient transportation modes, consolidate shipments, and optimize routes for both upstream and downstream distribution.

Expand Circularity: Continue to strengthen and potentially expand take-back programs and explore innovative materials for enhanced recyclability and component reuse.