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Product Carbon Footprint for Ipjkerggwv

Total Estimated PCF: 19.560 kg CO₂e / unit

Total Footprint

19.560 kg CO₂e

Carbon Intensity

19.560 kg CO₂e/unit

Top Material Hotspot

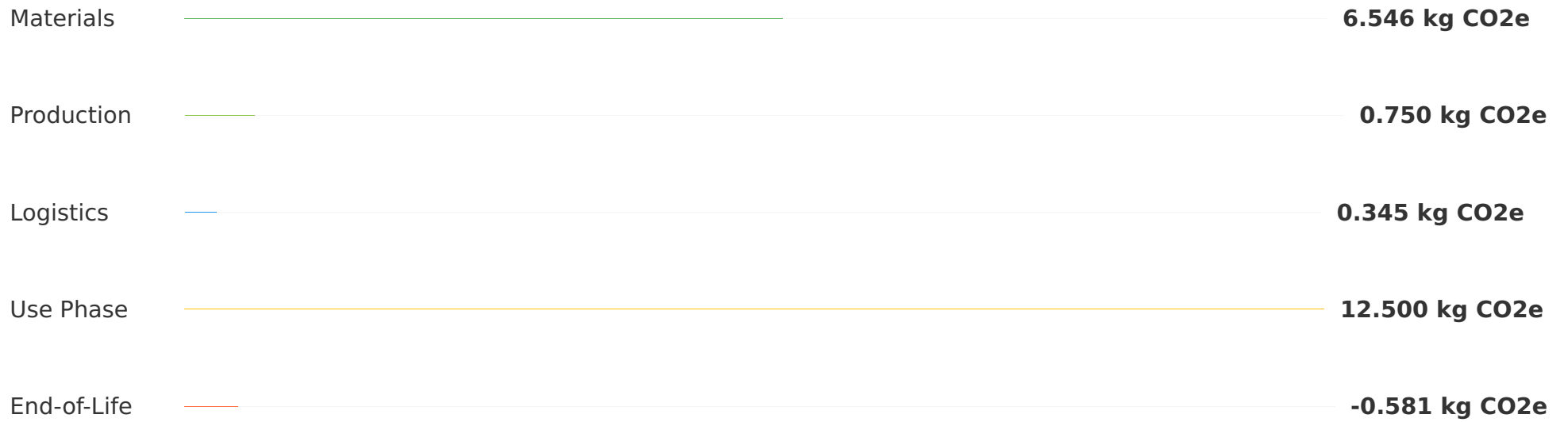
Aluminum Casing

(4.000 kg CO₂e)

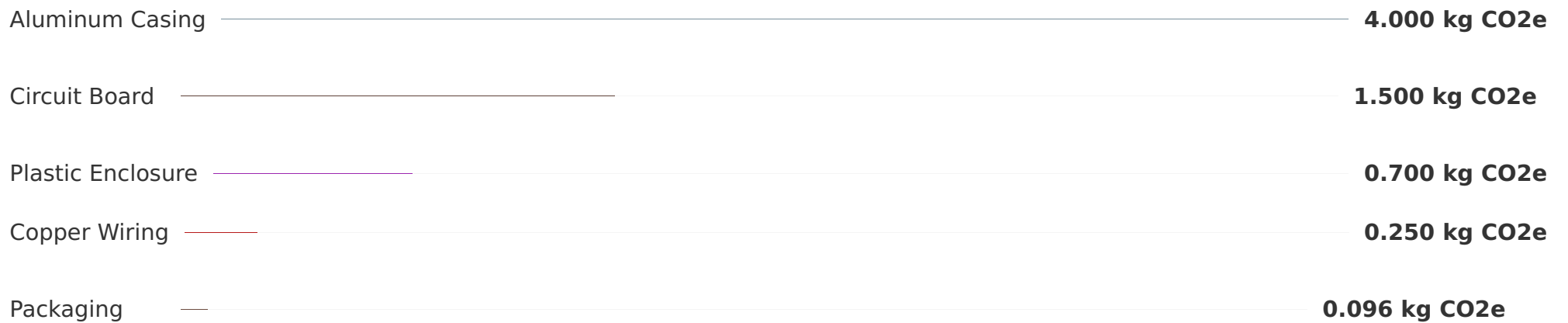
Primary Emission Scope

Scope 3

Lifecycle Stage Breakdown



Material Impact Breakdown



Key Insights & Hotspots

- **Use Phase Dominance:** The product's operational use accounts for the largest share of emissions, contributing 12.500 kg CO₂e due to its energy consumption over its 5-year lifespan.
- **Material Impact:** Raw materials, notably the Aluminum Casing (4.000 kg CO₂e), are significant upstream hotspots, totaling 6.546 kg CO₂e.
- **Reduced Production Emissions:** A high renewable energy usage of 75% at the manufacturing facility in China significantly mitigates the carbon impact from the production phase (0.750 kg CO₂e).

Action Plan for Impact Reduction

- **Enhance Energy Efficiency in Use:** Focus R&D on minimizing the product's 10.0 kWh/year energy consumption during its use phase to drastically cut its largest footprint contributor.
- **Sustainable Material Sourcing:** Engage actively with suppliers to source lower-carbon aluminum and explore alternative materials, aiming for higher recycled content beyond 80%.
- **Optimize Logistics & Circularity:** Further refine global transportation routes for efficiency and fully leverage the existing comprehensive take-back program to maximize recycling and explore reuse opportunities.
- **Strengthen Supplier Engagement:** Systematically collect primary Scope 1 & 2 emissions data from key suppliers to enhance the accuracy and granularity of Scope 3 reporting.