Product Carbon Footprint Dashboard

Product: utnzrxowuu

35.458 kg CO2e

carboncalcpcf.com

Key Metrics

TOTAL PCF

35.458

kg CO2e per unit

PRIMARY EMISSION SCOPE

Scope 3

Value Chain

TOP HOTSPOT (MATERIALS)

Aluminum Casing

3.75 kg CO2e

RENEWABLE ENERGY USE

75%

in Production

RECYCLABILITY

80%

at End-of-Life

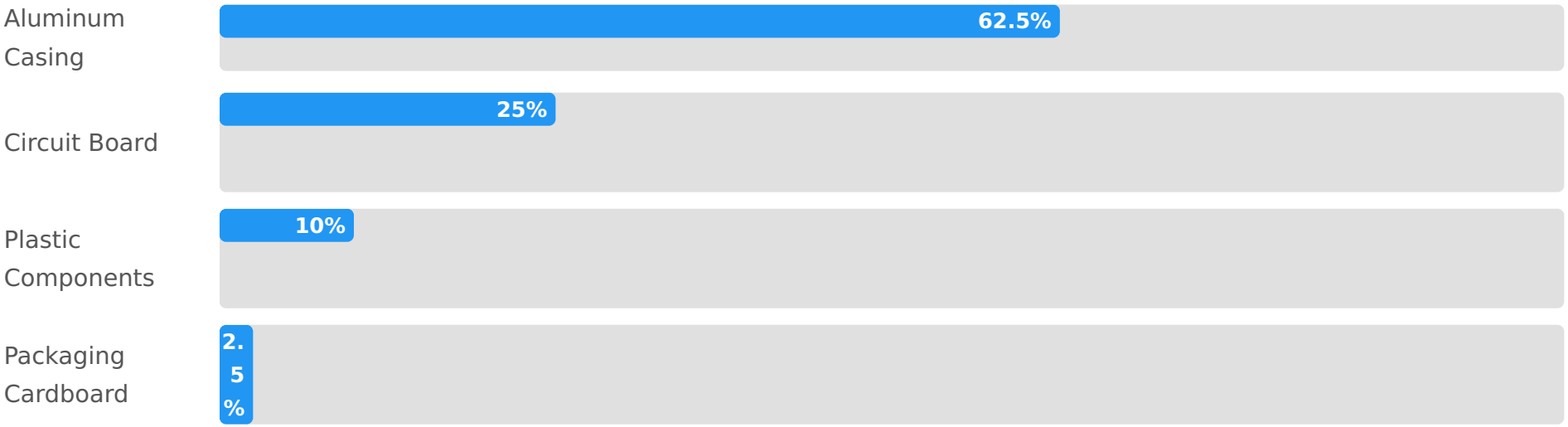
Emissions Breakdown

Lifecycle Stage Contributions (Positive Emissions)

Material Acquisition	6.000 kg CO2e (14.9%)
Manufacturing (Energy)	0.124 kg CO2e (0.3%)
Transportation	0.125 kg CO2e (0.3%)
Use Phase	33.987 kg CO2e (84.5%)
End-of-Life (Credit)	-4.778 kg CO2e

Credit

Material Carbon Impact Breakdown



Highlights & Emissions Hotspots

- The **Use Phase** is the most significant contributor to the product's carbon footprint, accounting for approximately 84.5% of positive emissions.
- **Material Acquisition**, particularly from Aluminum Casing and Circuit Board, is the second largest positive hotspot.
- The **End-of-Life** stage generates a substantial carbon credit (-4.778 kg CO2e) due to a high 80% recyclability rate and a comprehensive take-back program.

Recommendations for Reduction

- **Enhance Use Phase Efficiency:** Focus on reducing the product's daily energy consumption (llnqvnsohk) and extending its lifespan (hjkohfqndz) through durable design.
- **Optimize Material Sourcing:** Investigate lower-carbon alternatives for high-impact materials like Aluminum Casing and Circuit Boards, or increase recycled content.
- **Strengthen Circularity:** Continue and expand the comprehensive take-back program to maximize recycling and material recovery, further increasing EoL credits.