html

carboncalcpcf.com

Product Carbon Footprint Dashboard

Product: fzyihdxlxh | Company: oeghpxditp | Consultant: rwhhjrosml

17.79 kg CO2e per unit

Total Footprint

17.79 kg CO2e

Overall impact per functional unit

Carbon Intensity

17.79 kg CO2e/unit

Footprint per 1.0 unit of fzyihdxlxh

Top Material Hotspot

Aluminum Frame

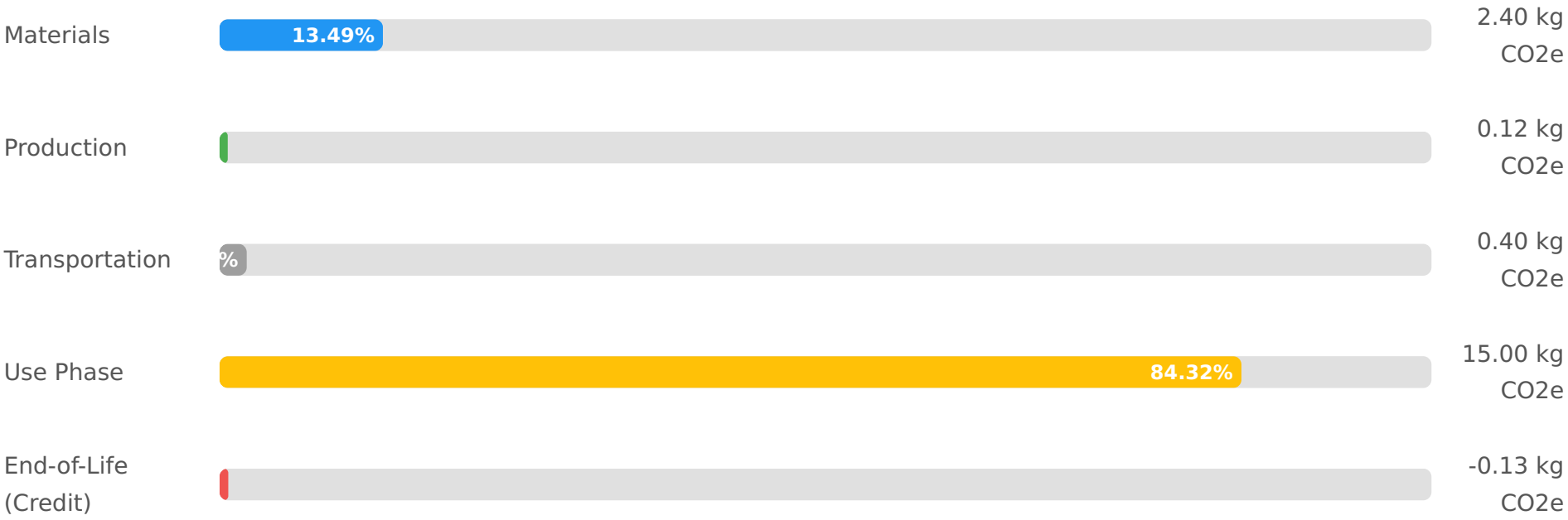
1.20 kg CO2e within materials

Primary Emission Scope

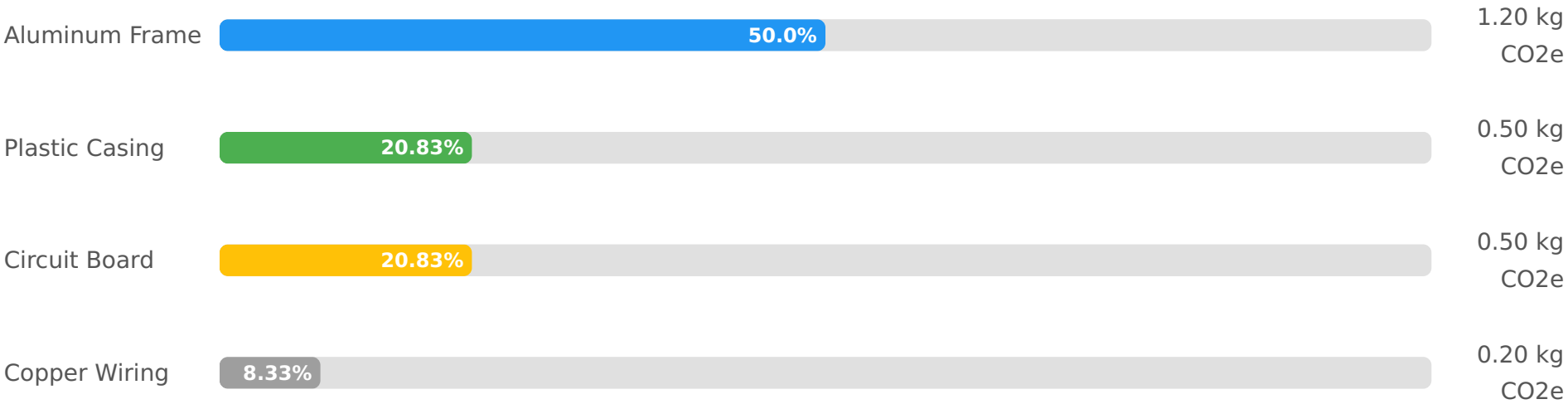
Scope 3 (Use Phase)

Dominant lifecycle stage

Lifecycle Stage Breakdown



Material Carbon Impact (Illustrative)



*Percentages are relative to total illustrative material emissions (2.40 kg CO2e).

Key Insights & Hotspots

Use Phase Dominance: The product's energy consumption during its lifespan accounts for 84.32% of the total carbon footprint, making it the most significant hotspot.

Material Impact: Raw material acquisition, particularly for the Aluminum Frame, contributes significantly, highlighting the need for sustainable sourcing.

Circular Economy Opportunity: With an illustrative 60% recyclability and existing take-back programs, there's a strong foundation for enhancing material recovery and avoided emissions.

Recommended Action Plan

- **Optimize Use Phase:** Redesign for enhanced energy efficiency and lower power modes, and provide user guidance for sustainable operation to significantly reduce lifetime emissions.
- **Material Decarbonization:** Prioritize investigation into lower-carbon alternatives for the plastic casing and aluminum frame. Engage suppliers to verify and improve their embedded emissions.
- **Enhance Circularity:** Strengthen existing circular/take-back programs and explore design-for-disassembly strategies to maximize recyclability and material recovery.
- **Supply Chain Engagement:** Collaborate with key suppliers to foster operational efficiencies and increase renewable energy adoption across the value chain.
- **Detailed Data Collection:** Implement systems for more granular primary data collection on energy consumption and specific transportation modes to refine future PCF calculations.