html

carboncalcpcf.com

Product Carbon Footprint Dashboard

Product: mjjrqupdlk

27.89 kgCO2e

per 1.0 unit (Cradle-to-Grave)

Total Footprint

27.89 kgCO2e

per functional unit

Carbon Intensity

27.89 kgCO2e/unit

for product mjjrqupdlk

Top Material Hotspot

Aluminum Frame

1.40 kgCO2e (61.7% of material impact)

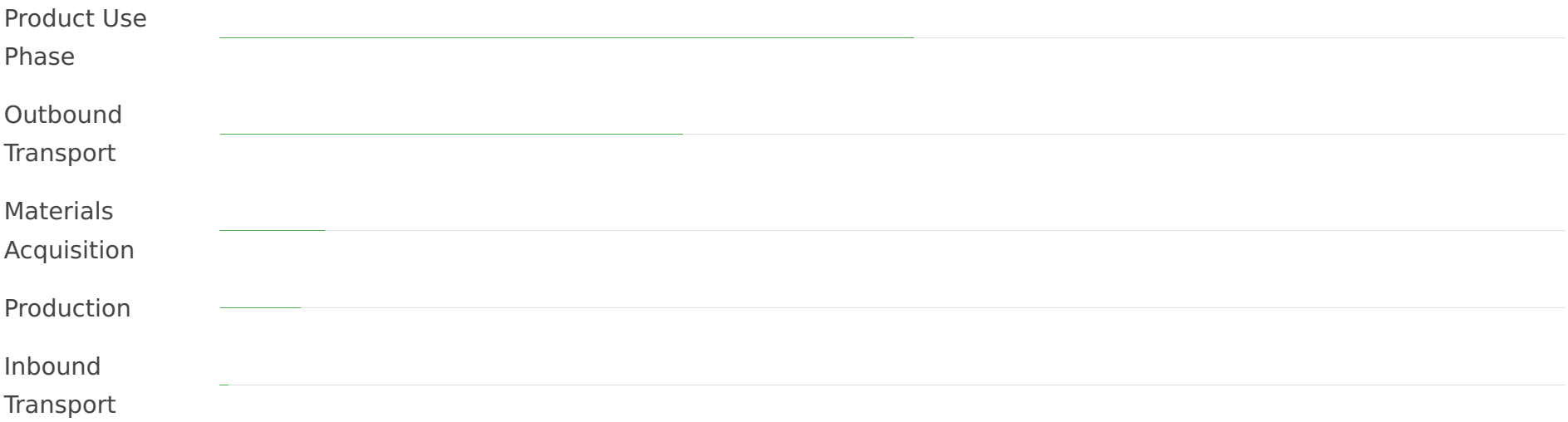
Primary Emission Scope

Scope 3

26.15 kgCO2e (93.8% of total)

Emission Breakdown by Lifecycle Stage

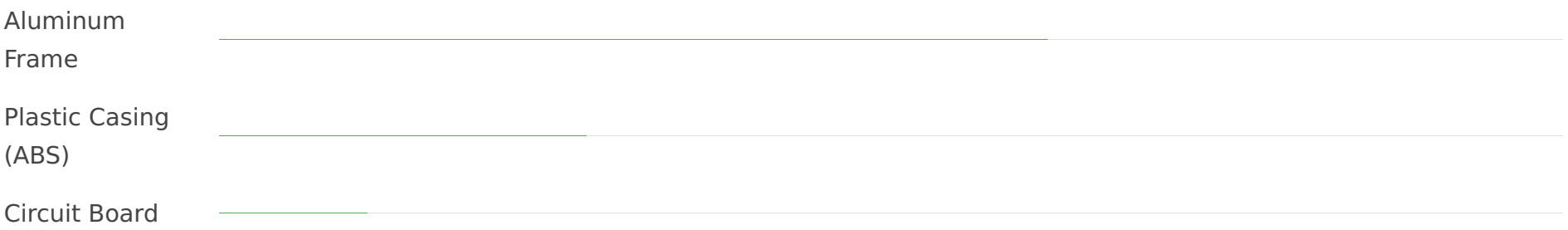
Positive Contributions (Total: 29.078 kgCO2e)



Note: The End-of-Life phase resulted in a net carbon saving of **-1.188 kgCO2e** due to recycling credits.

Material Composition vs. Carbon Impact

Impact by Material (Total: 2.27 kgCO2e)



Key Highlights

- The **Product Use Phase** is the largest contributor to the overall carbon footprint, accounting for 15.0 kgCO2e (53.78% of total net footprint). This highlights the significance of energy consumption during the product's lifespan.
- **Outbound Transportation**, primarily last-mile delivery, is a substantial hotspot at 10.0 kgCO2e (35.85% of total net footprint). Efficient logistics and delivery methods are crucial for reduction.
- Among materials, the **Aluminum Frame** has the highest carbon impact, contributing 1.40 kgCO2e (61.7% of total material emissions), making it a key focus for sustainable sourcing.

Action Plan for Emission Reduction

1. **Optimize Use Phase Energy:** Implement energy-efficient design, software optimization, and promote responsible user behavior. Explore renewable energy options for product operation.
2. **Streamline Logistics:** Optimize outbound delivery routes, consolidate shipments, and explore lower-emission transport modes like electric vehicles or rail for last-mile delivery.
3. **Enhance Material Circularity:** Increase recyclability beyond 80% and strengthen take-back schemes for actual material recovery. Prioritize the use of higher recycled content in raw materials.
4. **Supply Chain Engagement:** Collaborate with suppliers to reduce the carbon intensity of high-impact raw materials, especially aluminum. Encourage renewable energy adoption in their production processes.