

PCF Report for jvkwsjqlwo

carboncalcpcf.com

Total Product Carbon Footprint

19.74
kgCO₂e

Total Footprint

19.74 kgCO₂e/unit

Carbon Intensity

19.74 kgCO₂e/unit

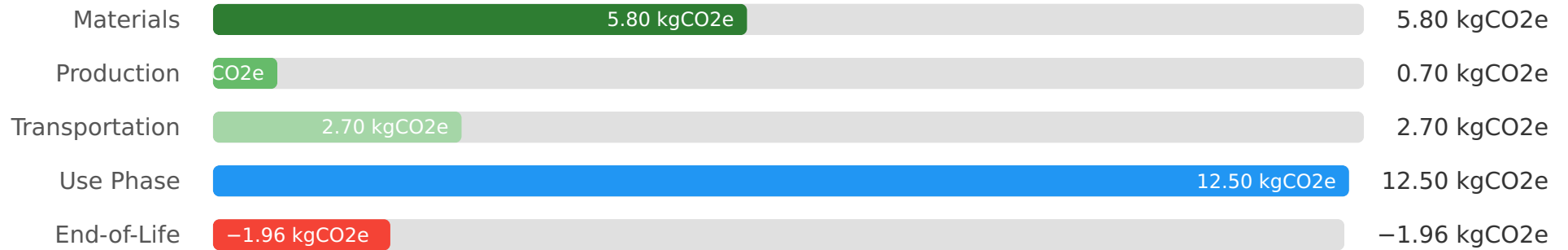
Top Material Hotspot

Aluminum Casing (3.5 kgCO₂e)

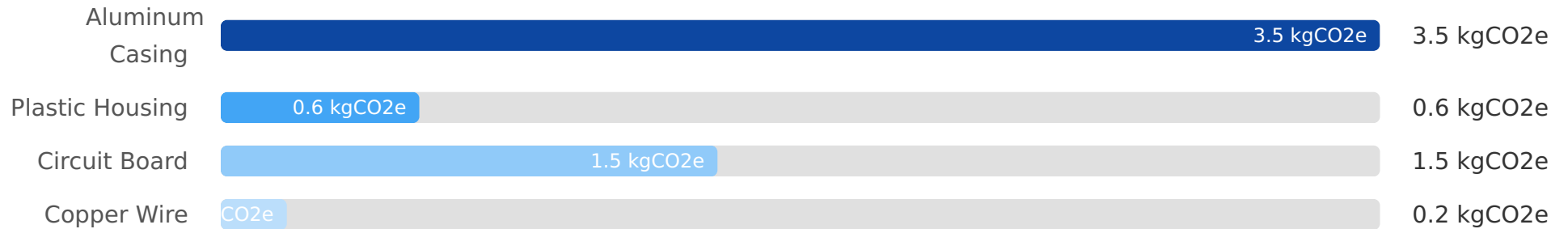
Primary Emission Scope

Scope 3 (19.04 kgCO₂e)

Lifecycle Stage Breakdown



Material Composition vs Carbon Impact



Key Emission Hotspots

- The **Use Phase** is the dominant contributor, accounting for 63.3% (12.5 kgCO₂e) of the total PCF, primarily due to the product's energy consumption over its lifespan.
- **Materials Acquisition & Pre-processing** represents the second largest impact at 29.4% (5.8 kgCO₂e), with the Aluminum Casing identified as the primary hotspot within materials.
- **Transportation** contributes 13.7% (2.70 kgCO₂e), with last-mile delivery emerging as a significant factor in the overall logistics footprint.

Recommended Action Plan

1. **Optimize Use Phase Energy:** Focus on reducing the product's energy consumption during its operational life through more efficient components and smart power management.
2. **Sustainable Material Sourcing:** Explore lower-carbon alternatives or materials with higher recycled content, especially for high-impact components like the aluminum casing.
3. **Streamline Logistics:** Investigate more efficient or lower-emission transportation modes for both upstream and downstream, with a focus on optimizing last-mile delivery.
4. **Enhance Circularity:** Expand and promote take-back and recycling programs to maximize end-of-life benefits and further reduce net emissions.