

carboncalpcf.com

# Product Carbon Footprint (PCF) Dashboard

**Product:** gdsodmsw | **Total PCF:** 17.96 kg CO<sub>2</sub>e/unit

Report by hxtrsvkoqz (Consultant: sznsvtgkf) | Standard: GHG Protocol | Production Country: China

## 17.96 kg CO<sub>2</sub>e

Total Product Footprint

## Scope 3

Primary Emission Scope

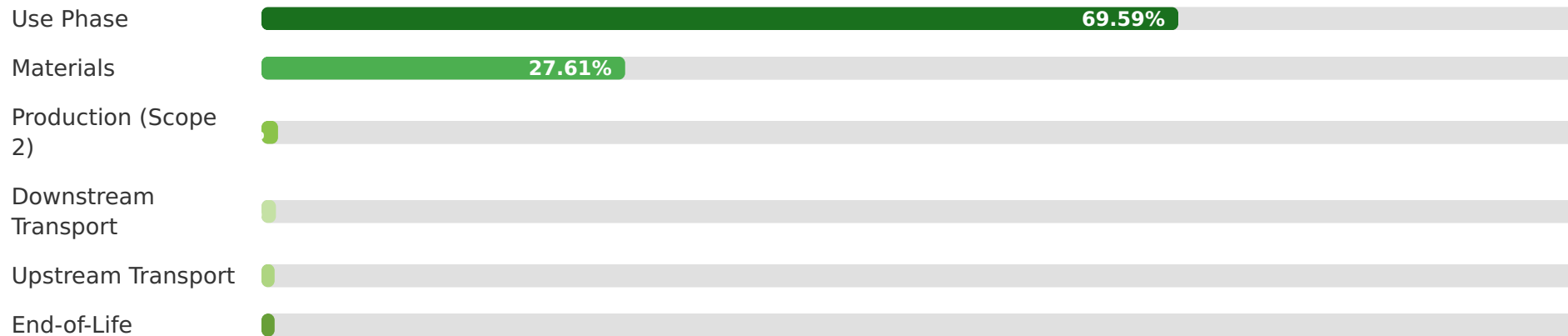
## Use Phase

Largest Hotspot Area

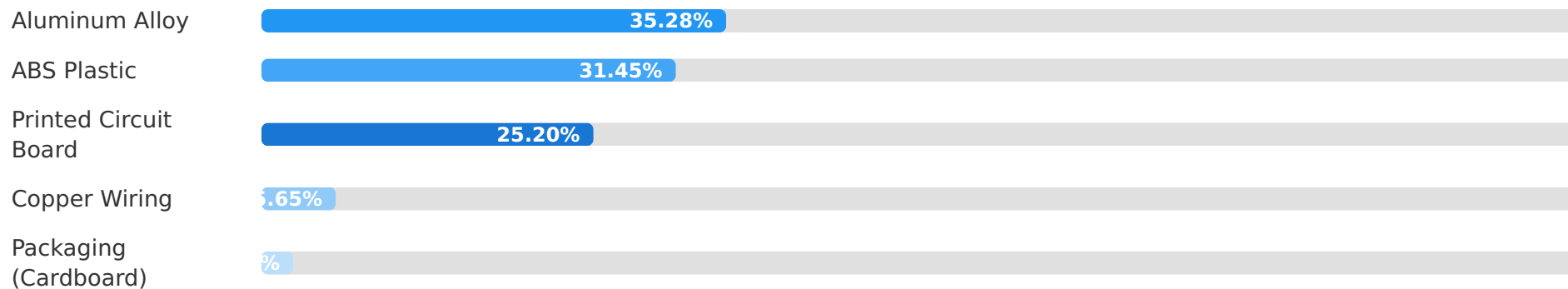
## 75% [cite: fjfnoiqwnt]

Renewable Energy in Production

### Lifecycle Stage Breakdown (Total PCF)



### Material Carbon Impact (Illustrative)



Based on a total material carbon of 4.96 kg CO2e/unit.

### Key Emission Hotspots

- **Use Phase Dominance:** The product's operational energy consumption over its 5-year lifespan accounts for ~70% of the total PCF [cite: 1, lexopzsj].
- **Material Impact:** Raw material acquisition and pre-processing contribute ~28% to the footprint, driven by high-impact materials like plastics and electronics.
- **Production Efficiency:** While 75% renewable energy is used in manufacturing, the remaining non-renewable portion still contributes to Scope 2 emissions [cite: 1, fjfnoiqwnt].

## Decarbonization Action Plan

- **Optimize Use Phase Energy:** Prioritize design for even lower energy consumption, explore smart modes, and promote consumer renewable energy use.
- **Enhance Material Circularity:** Increase recycled content in high-impact components and engage suppliers to reduce upstream emissions. Leverage take-back programs for high-value components [cite: lseopsvnhd].
- **Expand Green Manufacturing:** Further increase renewable energy adoption at production facilities in China, potentially through off-site renewable energy procurement.
- **Strengthen Supply Chain Engagement:** Work collaboratively with European-focused suppliers to identify and mitigate transport and production emissions further upstream.
- **Improve End-of-Life Systems:** Maximize material recovery beyond the current 60% recyclability through design for disassembly and expanded take-back initiatives [cite: joerzmzdph, lseopsvnhd].