

Product Carbon Footprint (PCF) Analysis

Product: fsofqkrwxm | Unit: 1.0 | Country: China | Standard: GHG Protocol

carboncalcpcf.com

Total PCF: 30.43 kg CO₂e
(for 1.0 unit)

Total Footprint

30.43 kg CO₂e

Carbon Intensity

30.43 kg CO₂e / unit

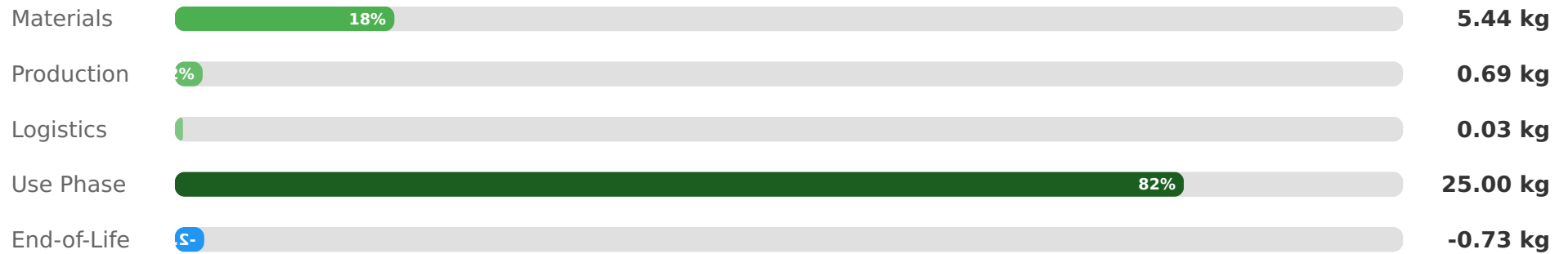
Top Material Hotspot

Aluminum Casing (3.5 kg CO₂e)

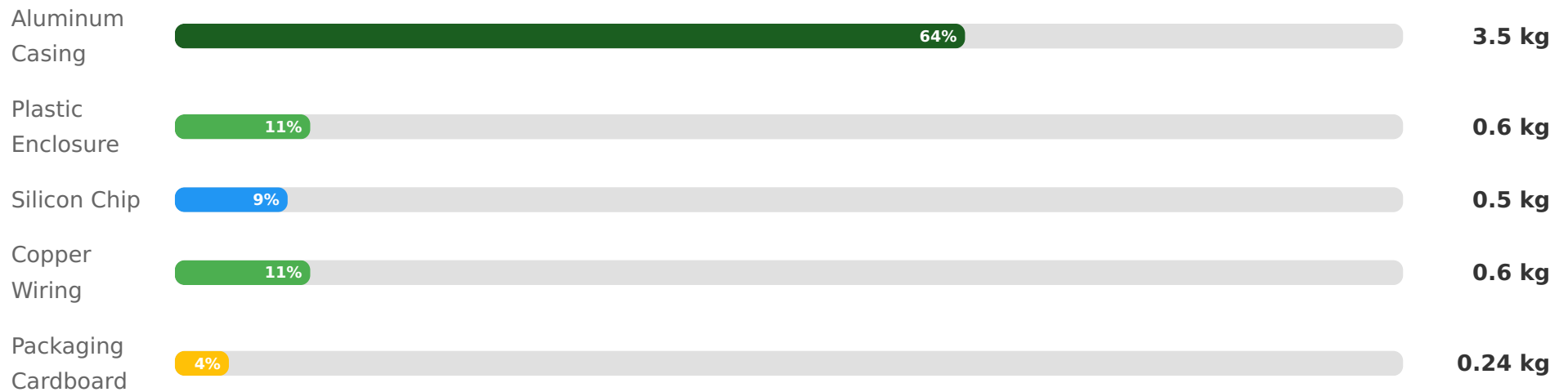
Primary Emission Scope

Scope 3 (Use Phase)

Lifecycle Stage Breakdown



Material Impact Breakdown



Key Insights

- **Use Phase Dominance:** The product's Use Phase accounts for approximately 82% of its total carbon footprint, highlighting energy consumption during operation as the largest impact area.
- **Significant Material Impact:** Material Acquisition represents around 18% of the upfront emissions, with Aluminum Casing being the primary material hotspot.
- **Mitigated Manufacturing Impact:** The production phase (Scope 2) benefits from 75% renewable energy usage, significantly reducing its carbon contribution.

Action Plan for Reduction

- **Optimize Use Phase Efficiency:** Prioritize design improvements for energy efficiency to drastically cut emissions during the product's operational lifespan.
- **Sustainable Material Sourcing:** Investigate and switch to materials with lower embedded carbon, increased recycled content, or certified sustainable origins.
- **Enhance Circularity Initiatives:** Further develop and promote take-back programs and increase product recyclability to maximize end-of-life benefits and minimize waste.