carboncalcpcf.com

Product Carbon Footprint for lomprltkwl

Total Footprint: **16.88 kg CO2e / unit**

Generated on: May 28, 2026 | Standard: GHG Protocol | System Boundary: Cradle-to-Grave

Key Metrics

Total Footprint

16.88 kg CO2e

Carbon Intensity

16.88 kg CO2e / unit

Top Material Hotspot

Electronic PCB Assembly

2.00 kg CO2e (55.6% of material emissions)

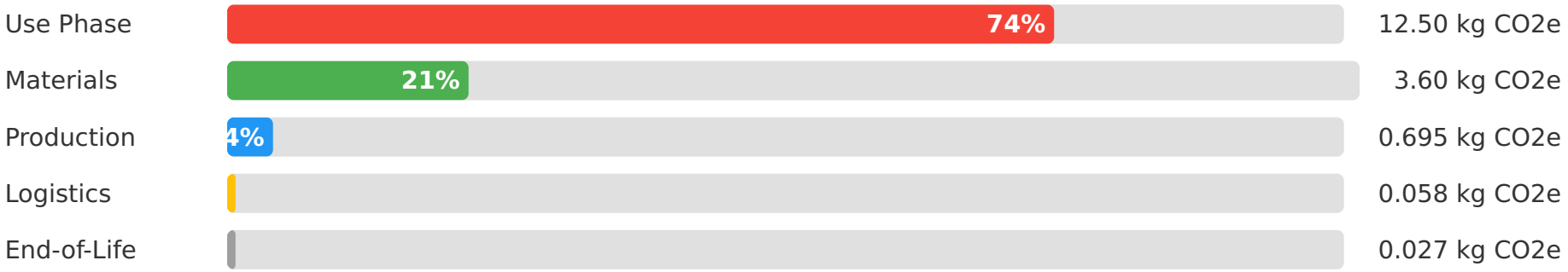
Primary Emission Scope

Scope 3: Use Phase

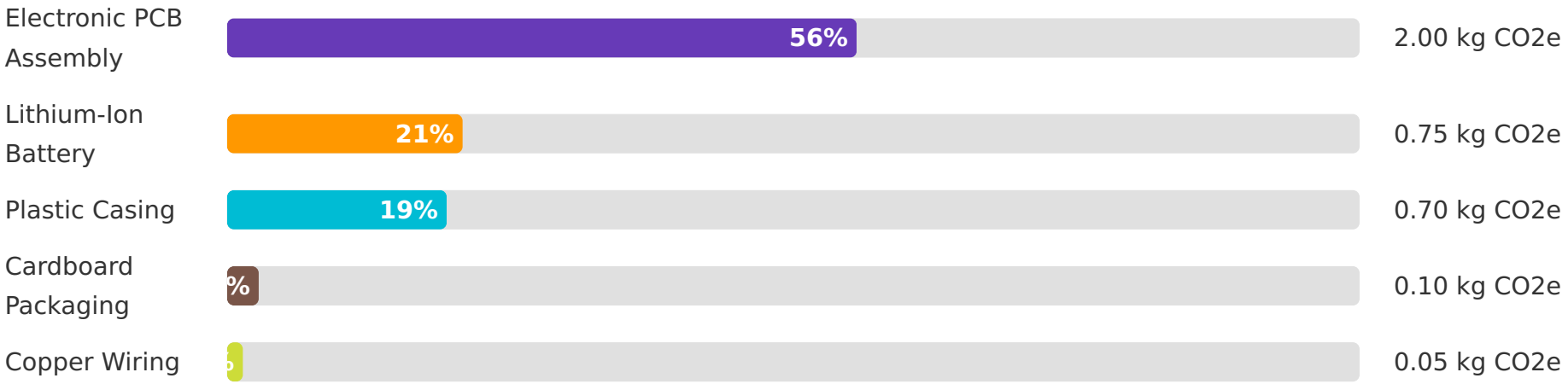
12.50 kg CO2e (74.05% of total)

Carbon Emission Breakdown

Lifecycle Stage Breakdown



Material Carbon Impact



Highlights: Key Emission Hotspots

The **Use Phase** of 'lomprltkwl' is the dominant emission hotspot, accounting for approximately 74% of the total product carbon footprint. This is primarily due to energy consumption over its 5-year lifespan.

Material Acquisition, specifically the production of the Electronic PCB Assembly and the Lithium-Ion Battery, represents the second largest impact, contributing about 21% of total emissions.

Despite 75% renewable energy procurement, the remaining **electricity for manufacturing** in China is still a notable contributor to the footprint, falling under Scope 2 emissions.

Recommendations for Emission Reduction

Enhance Use Phase Efficiency: Invest in R&D to significantly reduce the energy consumption of 'lomprltkwl' during its operational life through more efficient components and smart power management.

Sustainable Material Sourcing: Collaborate with suppliers to integrate lower-carbon alternatives for key components like the Electronic PCB Assembly and Lithium-Ion Battery, exploring recycled or bio-based materials.

Increase Renewable Energy Procurement: Further increase the share of renewable energy in manufacturing operations in China and encourage supply chain partners to do the same to reduce Scope 2 emissions.

Strengthen Circular Economy Initiatives: Continue expanding product take-back programs and promote high-quality recycling to maximize material recovery and minimize end-of-life impacts.