html

carboncalcpcf.com

Product Carbon Footprint: esorivuogq

Quantity:	Boundary:	Country:	Standard:
1.0 unit	factory_gate	China (Prod.)	GHG Protocol

19.91 kg CO2e **Total Product Footprint**

Total Footprint

19.91

kg CO2e / unit

Carbon Intensity

19.91

kg CO2e / unit

Top Material Hotspot

Aluminum Casing

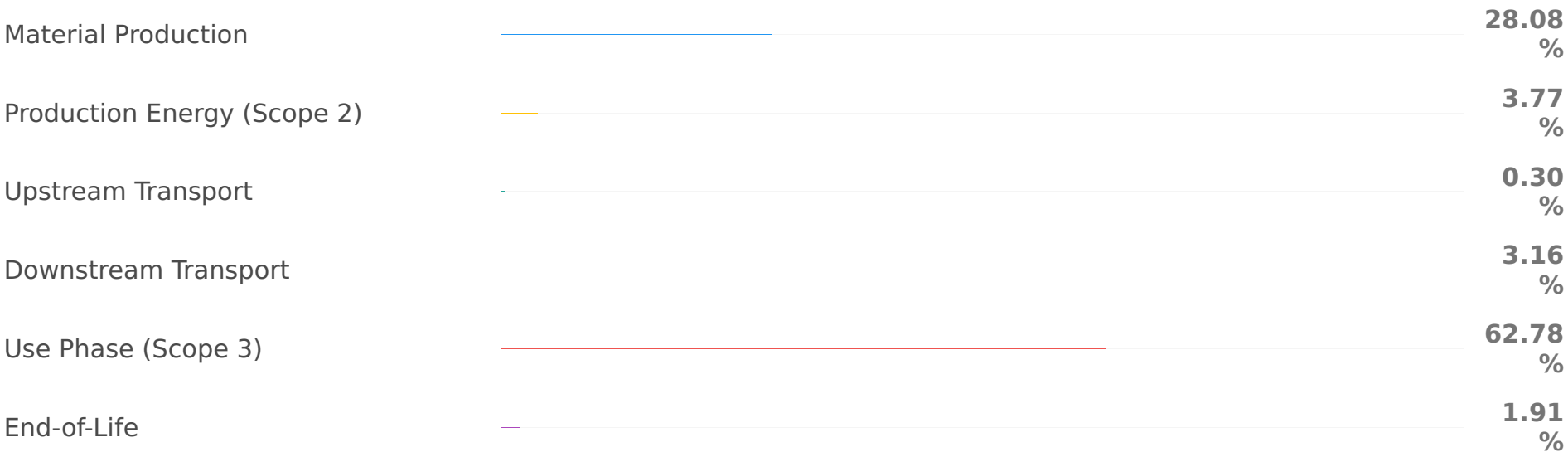
(2.00 kgCO2e)

Primary Emission Scope

Scope 3

(Use Phase)

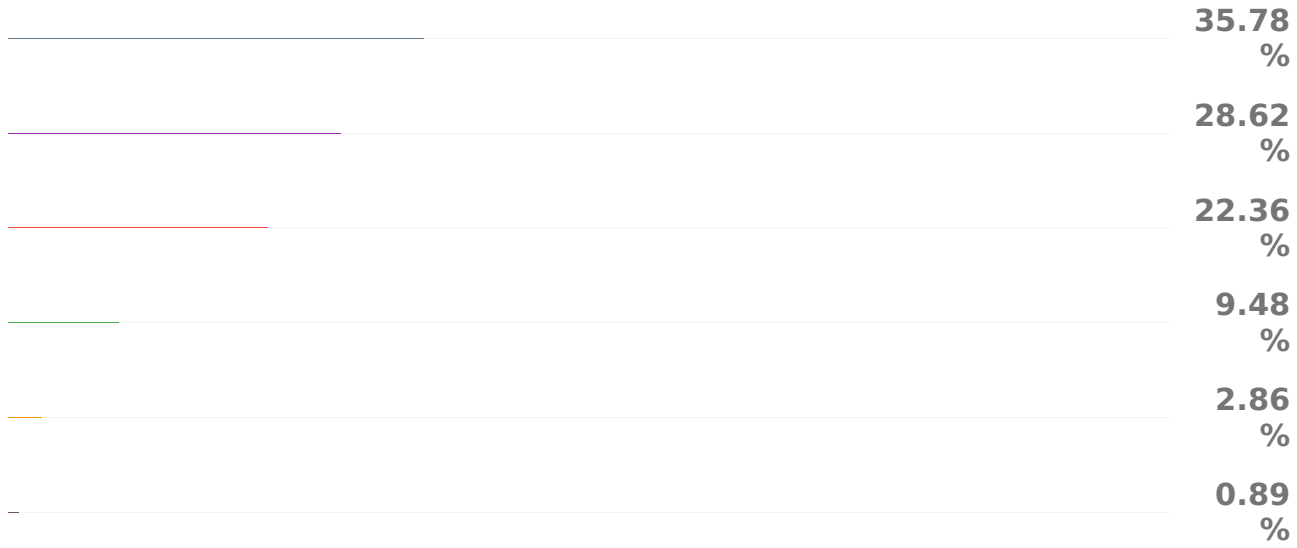
Lifecycle Stage Breakdown



Highlights & Hotspots

- **Use Phase Dominance:** The product's energy consumption during its 5-year lifespan accounts for 62.8% of the total PCF.
- **Material Impacts:** Raw material acquisition and processing, especially for the Circuit Board and Lithium-ion Battery, contribute significantly (28.1%).
- **Production Energy:** Despite 75% renewable energy use, the remaining grid electricity for manufacturing in China is a notable contributor (3.8%).

Material Carbon Impact Breakdown



How to Reduce Your Footprint

- **Enhance Use Phase Efficiency:** Focus on designing more energy-efficient products and exploring opportunities for renewable energy use during the product's lifespan.
- **Optimize Material Sourcing:** Investigate lower-carbon materials, increase recycled content, or find alternative suppliers with better emission profiles for high-impact components like electronics and batteries.
- **Improve Production Efficiency:** Continue increasing renewable energy penetration in manufacturing operations in China and explore process optimizations to reduce overall energy intensity.
- **Strengthen Circularity:** Leverage existing circular/take-back programs to maximize actual recycling rates and potentially incorporate material-specific recycling credits in future PCF updates.