

html

carboncalcpcf.com

Product Carbon Footprint Dashboard

for xikfwljjt

11.77 kgCO₂e

Total Product Carbon Footprint

Total Footprint

11.77

kgCO₂e/unit

Carbon Intensity

17.57

kgCO₂e/kg product

Top Material Hotspot

Upstream Materials

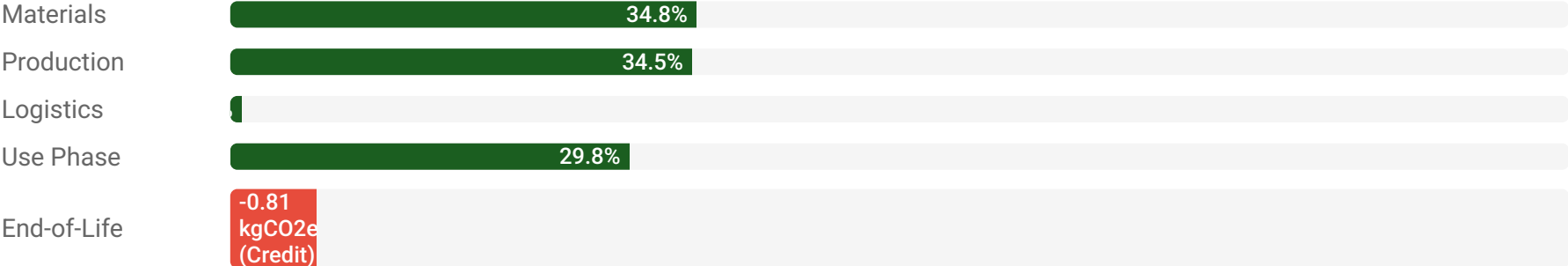
(4.38 kgCO₂e)



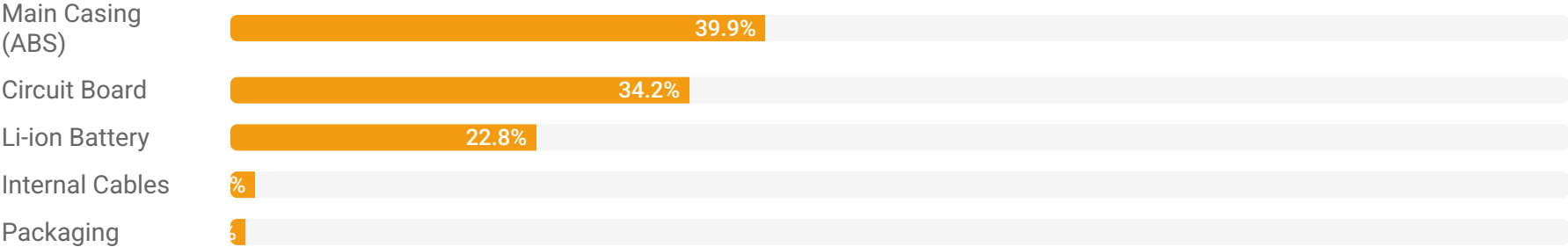
Primary Emission Scope

Scope 3
(Value Chain)

Lifecycle Stage Breakdown



Material Carbon Impact



Highlights & Key Insights

- ✘ Manufacturing (Scope 2) and Upstream Materials (Scope 3) are the largest emission contributors, each accounting for over 34% of positive emissions.
- ✘ The product's use phase contributes significantly, representing nearly 30% of positive emissions over its 3-year lifespan.
- ✘ High recyclability and a take-back program result in a notable net credit (-0.81 kgCO₂e) at the End-of-Life stage, reducing the overall footprint.
- ✘ The stated intercontinental transport distance (1,500 km) is anomalously short, likely underestimating actual logistics emissions.

Recommendations for Reduction

- ✘ **Material Optimization:** Explore alternative, lower-carbon materials for high-impact components like circuit boards and batteries.
- ✘ **Renewable Energy Sourcing:** Increase renewable energy usage in the China production facility beyond the current 30% to significantly reduce Scope 2 emissions.
- ✘ **Energy Efficiency in Use:** Implement design changes to reduce the product's energy consumption during its 3-year use phase.
- ✘ **Logistics Optimization:** Re-evaluate transport routes and modes for a more realistic intercontinental journey, prioritizing lower-emission options like sea freight.