

html

carboncalcpcf.com - Product Carbon Footprint

pzqijugrrn Dashboard

Report for pfmwgjlupе by mlezdgflhw - May 22, 2026

34.29 kg CO₂e

34.29

TOTAL PCF (KG CO2E)

34.29

CARBON INTENSITY (KG CO2E/UNIT)

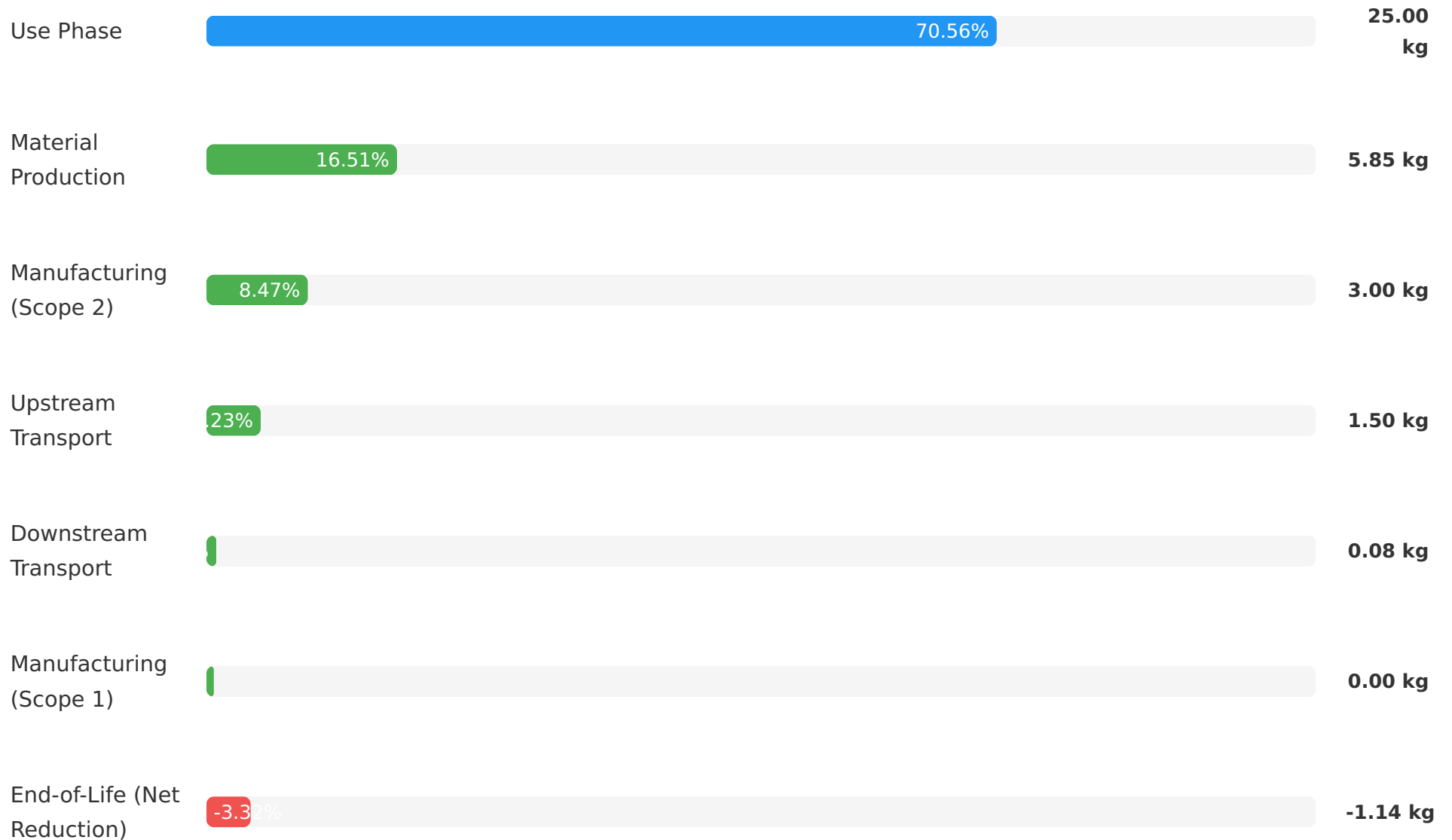
Use Phase

PRIMARY HOTSPOT

Scope 3

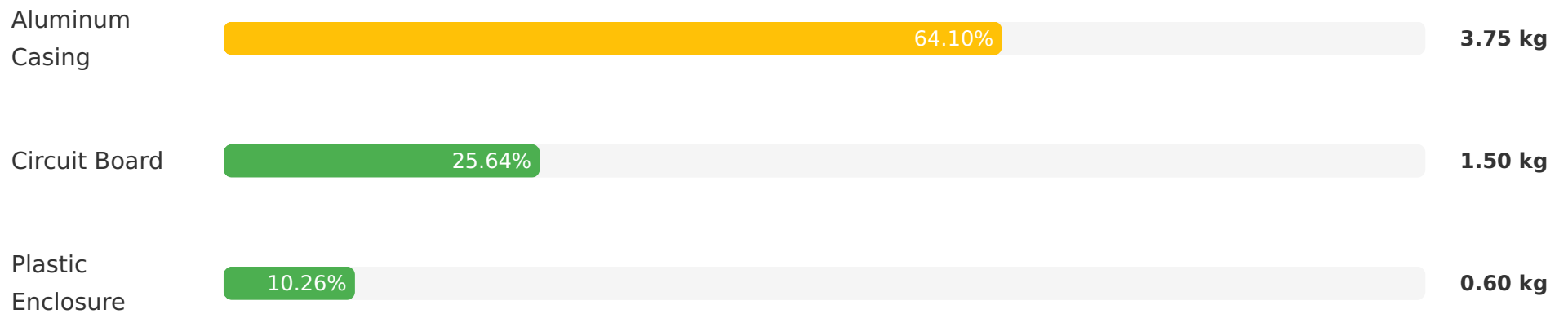
DOMINANT SCOPE

Lifecycle Stage Breakdown



Note: Percentages for lifecycle breakdown are based on the sum of positive emissions (35.43 kg CO2e) for visual clarity, with End-of-Life shown as a net reduction.

Material Carbon Impact



Based on a total material production emission of 5.85 kg CO2e.

Key Highlights & Hotspots

The product's **Use Phase accounts for the largest share of emissions (25.0 kg CO2e)**, constituting over 70% of the total PCF. This is primarily due to energy consumption over its 5-year lifespan.

Material Production is the second-largest hotspot (5.85 kg CO2e), with the Aluminum Casing being the most impactful material, contributing 3.75 kg CO2e within this category.

Despite 50% renewable energy usage, **Manufacturing Electricity (Scope 2) still contributes 3.0 kg CO2e**, highlighting the impact of the remaining grid electricity mix.

Recommendations for Carbon Reduction

Energy Efficiency in Use Phase: Focus on reducing the product's energy consumption during its operational life, as this is the primary driver of its carbon footprint.

Material Optimization: Explore lower-carbon alternative materials or increase the recycled content for high-impact components like aluminum and plastics.

Renewable Energy Expansion: Further expand the percentage of renewable energy used in manufacturing operations to significantly cut down Scope 2 emissions.

Logistics Optimization: Review and optimize transport routes and modes for both raw materials and finished goods to minimize fuel consumption and associated emissions.

Circular Economy Enhancement: Strengthen existing take-back and recycling programs to maximize material recovery and further minimize end-of-life impacts.