Product Carbon Footprint: fmzryqnyqs

Report by carboncalcpcf.com | kdwuvznnnv

314.35 kg CO_2e

for 1.0 unit (Cradle-to-Grave)

Total Carbon Footprint

314.35 kg CO_2e

Carbon Intensity

1.96 kg CO_2e/kg product

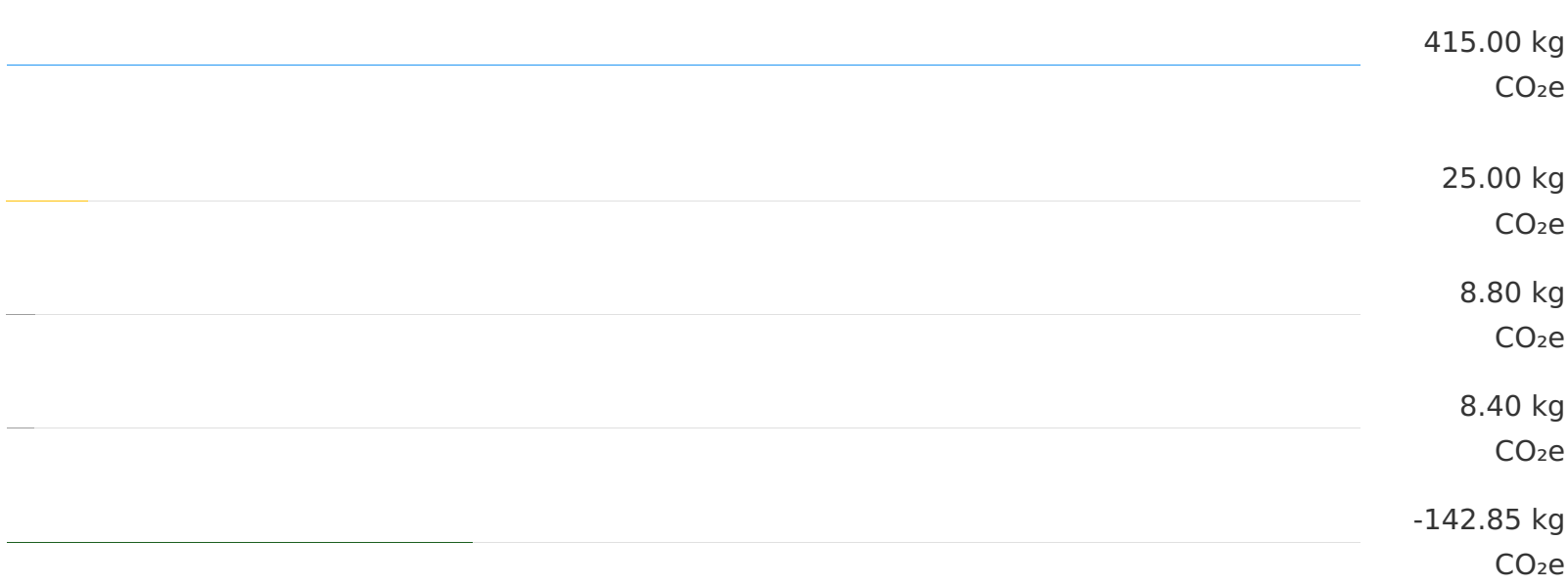
Top Material Hotspot

Steel (200 kg CO_2e)

Primary Emission Scope

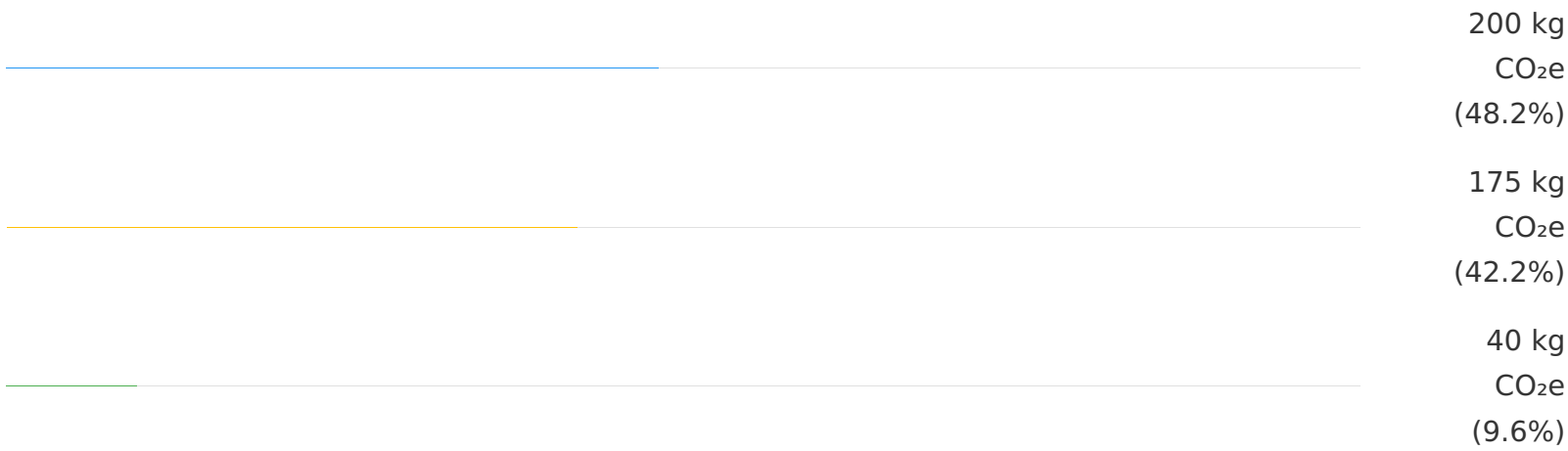
Scope 3 (305.95 kg CO_2e)

Emissions by Lifecycle Stage



Materials Acquisition & Processing	415.00 kg CO_2e
Product Use	25.00 kg CO_2e
Transportation (Upstream)	8.80 kg CO_2e
Manufacturing (Energy)	8.40 kg CO_2e
End-of-Life (Net Credit)	-142.85 kg CO_2e

Material Carbon Impact Breakdown



Steel	200 kg CO_2e (48.2%)
Plastic	175 kg CO_2e (42.2%)
Copper	40 kg CO_2e (9.6%)

Recommended Action Plan for Reduction

- **Material Impact Reduction:** Prioritize exploring alternative materials with lower embodied carbon, increasing recycled content, and optimizing material usage through design.
- **Use Phase Efficiency:** Investigate opportunities to significantly reduce energy consumption during the product's 5-year lifespan through design for energy efficiency.
- **Circular Economy Enhancement:** Continuously strengthen take-back programs and explore innovative recycling/reuse pathways to maximize End-of-Life credits.
- **Supplier Engagement:** Collaborate with key material and logistics suppliers to gather primary, supplier-specific emission data for more accurate Scope 3 reporting and targeted decarbonization.