CARBONCALCPCF.COM

Product Carbon Footprint Dashboard

Detailed analysis for **vpdgszstyp (Product A)**

Total PCF: 81.54 kg CO2e

Key Metrics Overview

Total Footprint

81.54

kg CO2e / unit

Carbon Intensity

81.54

kg CO2e / unit

Top Material Hotspot

Aluminium

5.00 kg CO2e

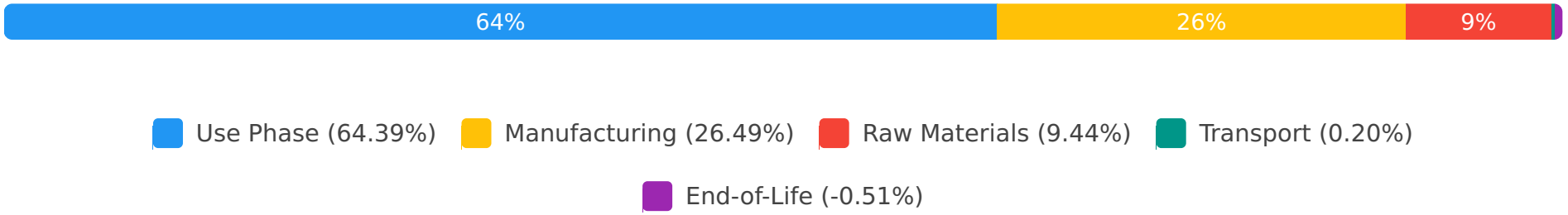
Primary Emission Scope

Scope 3

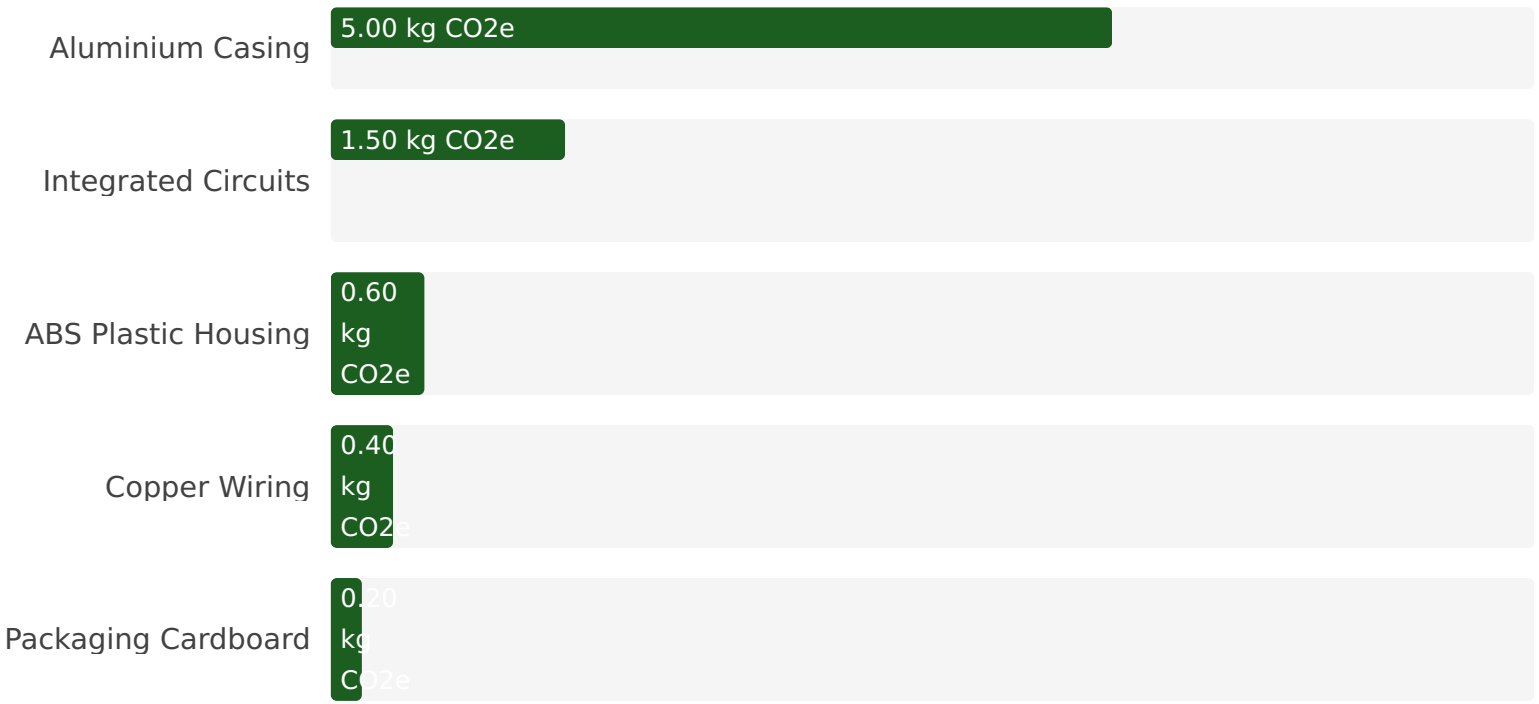
59.94 kg CO2e

Emissions Breakdown

Lifecycle Stage Contribution



Material Carbon Impact



Strategic Insights & Recommendations

Key Insights

- The **Use Phase** is the most significant contributor to the PCF (64.39%), primarily due to electricity consumption over the product's 7-year lifespan.

- **Manufacturing Energy** is the second largest hotspot (26.49%), highlighting the impact of grid electricity despite 70% renewable energy usage.
- **Raw Materials** account for 9.44% of emissions, with Aluminium Casing being the single largest material contributor.

Recommendations for Reduction

- **Optimize Use Phase Efficiency:** Focus on reducing product energy consumption during operation or explore options for renewable energy offsets for end-users.
- **Decarbonize Manufacturing:** Increase the share of renewable energy at the production facility beyond 70% to significantly cut Scope 2 emissions.
- **Source Sustainable Materials:** Investigate lower-carbon alternatives for high-impact materials like Aluminium, and improve material efficiency in the Bill of Materials.
- **Enhance Circularity:** Leverage the existing take-back scheme to maximize material recovery and explore design for disassembly and repair to extend product lifespan.
