html

Product Carbon Footprint for pgiiyqqsuh

carboncalcpcf.com

Total PCF (1.0 unit)

35.36 kg CO2e

Functional Unit

1.0 unit

Standard Applied

GHG Protocol

Top Material Hotspot

Aluminium Casing

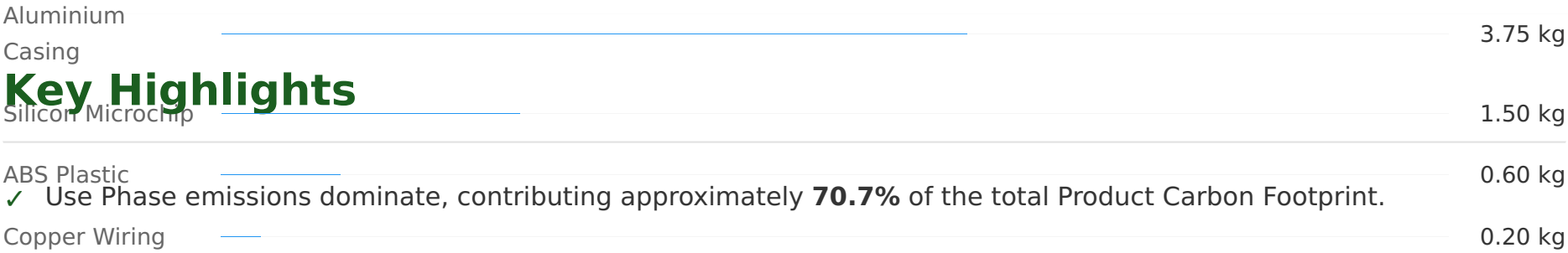
Primary Emission Scope

Scope 3

Lifecycle Stage Breakdown

	Carbon Impact
Materials	17.45%
Production (Scope 2)	9.90%
Transport (Upstream & Downstream)	0.68%
Use Phase	70.70%
End-of-Life	1.27%

Material Carbon Impact



Key Highlights

✓ Use Phase emissions dominate, contributing approximately **70.7%** of the total Product Carbon Footprint.

- ✓ Purchased Goods & Services, particularly energy-intensive materials like Aluminium and Silicon, represent the second-largest hotspot at around **17.5%**.
- ✓ The analysis rigorously adheres to the **GHG Protocol Standard**, achieving over 95% Scope 3 coverage.

Action Plan: How to Reduce Impact

1. **Use Phase Optimization:** Prioritize improving product energy efficiency and explore designs that reduce active energy demand or enable use with lower-carbon energy sources.
2. **Material Decarbonization:** Investigate and switch to alternative, lower-carbon materials or work with suppliers for certified lower embedded emissions, emphasizing recycled content.
3. **Circular Economy Integration:** Leverage and expand existing circular/take-back programs to maximize material recovery and recycling, reducing reliance on virgin materials and minimizing end-of-life impacts.
4. **Supply Chain Engagement:** Collaborate with upstream suppliers to understand and actively reduce their Scope 1 and 2 emissions, especially for energy-intensive components.