carboncalcpcf.com

Product Carbon Footprint for nzlwdijwfs

Company: lpvvvxkzny | Consultant: proddrwxwk

Overview

66.46 kg CO2e

Total Product Footprint

63.29 kg CO2e/kg

Carbon Intensity (per kg)

Use Phase

Primary Hotspot

GHG Protocol

Accounting Standard

Emission Breakdown

Lifecycle Stage Breakdown

Use Phase	58.00 kg CO2e (83.81%)
Materials (Purchased Goods)	9.125 kg CO2e (13.18%)
Production (Scope 2)	1.45 kg CO2e (2.09%)
Logistics (Transport)	0.63 kg CO2e (0.91%)
End-of-Life (Net Credit)	-2.74 kg CO2e

Material Carbon Impact

Aluminum	6.25 kg CO2e (68.5%)
Circuit Board	1.00 kg CO2e (10.9%)
ABS Plastic	0.90 kg CO2e (9.8%)
Copper Wire	0.80 kg CO2e (8.8%)
Packaging Cardboard	0.075 kg CO2e (0.8%)

Key Insights

- The **Use Phase** (Category 11) is the predominant carbon hotspot, contributing approximately 87% of the total cradle-to-grave PCF. This is driven by the product's 5-year operational energy consumption.
- **Purchased Goods and Services** (Category 1 - Materials), particularly Aluminum and Circuit Board components, represent the second-largest emissions source (around 13.7% of total PCF).
- The Product Carbon Footprint analysis strictly adheres to the **GHG Protocol Product Standard** and incorporates the 2026 Land Sector and Removals (LSR) Standard update.

Recommendations for Emissions Reduction

- ✓ **Optimize Use Phase:** Invest in R&D to significantly improve the energy efficiency of nzlwdijwfs during its operational life, exploring low-power modes and smart energy management.
- ✓ **Material Decarbonization:** Engage with suppliers to source lower-carbon materials for Aluminum and Circuit Board components, and increase recycled content where feasible.
- ✓ **Renewable Energy Expansion:** Increase the percentage of renewable energy used in the manufacturing facility beyond the current 75% to further reduce Scope 2 emissions.
- ✓ **Enhance Circularity:** Leverage existing component reuse and plastic take-back schemes by promoting these programs to customers and exploring expansion opportunities.
- ✓ **Supply Chain Engagement:** Work with logistics providers to explore more fuel-efficient transport modes or routes for both upstream and downstream activities.