

carboncalcpcf.com

Product Carbon Footprint Dashboard

Total PCF for "eqrdsghguq"

26.95 kg CO2e

26.95

Lifecycle Stage Breakdown Key Emission Highlights

- Use Phase Dominance:** The product's use phase (76.4%) contributes approximately 78% (21.00 kg CO2e) of the total carbon footprint, highlighting it as the primary hotspot.
- Material Impact:** Materials Acquisition & Processing for approximately 16% (4.40 kg CO2e) of the total PCF, with the Aluminum Casing being the largest contributor within this stage.
- Manufacturing Efficiency:** Manufacturing operations contribute around 8% (2.04 kg CO2e) of the footprint, indicating opportunities for further renewable energy integration and process optimization.

Recommendations for Emission Reduction

1. **Optimize Use Phase:** Focus on designing for extreme energy efficiency during operation and exploring integration with renewable energy sources for end-users.
2. **Sustainable Material Sourcing:** Investigate alternative, lower embodied carbon materials, and increase recycled content in high-impact components like Aluminum and Plastic.
3. **Enhance Manufacturing Efficiency:** Accelerate the transition to 100% renewable energy for production and continue improving energy intensity at the facility.
4. **Strengthen Circularity:** Leverage existing take-back programs and explore design for disassembly and modularity to boost recycling and repair.
5. **Supply Chain Engagement:** Collaborate with suppliers to reduce the embodied carbon of purchased goods and services, focusing on high-impact components.