

carboncalcpcf.com

Product Carbon Footprint Dashboard

iwgmexherl

Total PCF: **14.27 kg CO2e**

Total Footprint

14.27 kg CO2e

Per 1.0 unit (factory_gate)

Carbon Intensity

14.27 kg CO2e/unit

Standard: GHG Protocol

Top Hotspot

Use Phase

87.57% of total emissions

Key Insights & Hotspots

- The **Use Phase** dominates the carbon footprint, accounting for an overwhelming 87.57% of total emissions. This highlights product energy consumption during operation as the critical area for intervention.
- **Manufacturing emissions** are significantly reduced due to a high (75%) reliance on renewable energy sources at the production facility in China.
- The **End-of-Life** stage shows a net avoided emission (-0.77%) credit, primarily driven by the product's 80% recyclability and an active take-back program, demonstrating effective circular economy initiatives.

Recommendations for Reduction

- **Enhancing Use Phase Efficiency:** Prioritize R&D for significantly reduced energy consumption during the product's operational life, and empower consumers with information on energy-efficient usage patterns.
- **Sustainable Material Innovation:** Continuously explore and integrate alternative materials with lower inherent carbon footprints, including increasing recycled content and sustainably sourced bio-based materials.
- **Logistics Optimization:** Implement continuous optimization strategies for transport routes and actively investigate and adopt lower-emission transport modes where technically and economically feasible, especially for high-volume supply chain legs.
- **Circular Economy Expansion:** Strengthen the existing take-back program to maximize returns and explore further avenues to increase the recyclability percentage and implement more advanced closed-loop material cycles.