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Product Carbon Footprint Analysis for lihoogdgyv

Managed by dwgllpxgkj | GHG Protocol Standard

Total PCF: 11.21 kgCO2e per unit

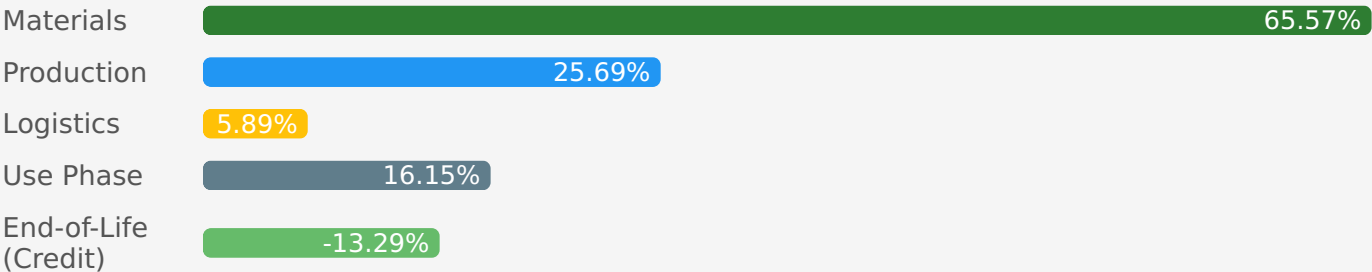
Product Name **lihoogdgyv**

Total Footprint **11.21 kgCO2e**

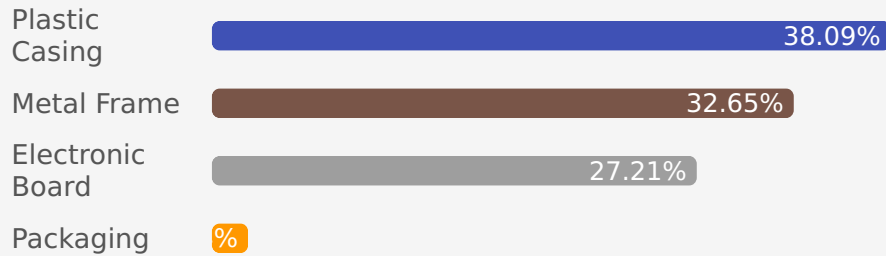
Carbon Intensity **11.21 kgCO2e/unit**

Primary Emission Scope **Scope 3 (74.31%)**

Lifecycle Stage Breakdown



Material Carbon Impact (Top 3)



*Percentages relative to total material emissions (7.35 kgCO₂e)

GHG Protocol Scope Breakdown



Key Emission Highlights

- **Raw Materials Dominance:** The acquisition and pre-processing of raw materials (Scope 3, Category 1) account for the largest share, contributing 65.57% to the total PCF, primarily from specialized electronic components, aluminum, and plastics.
- **Manufacturing Energy Impact:** Energy consumption during the manufacturing phase in China (Scope 2) represents 24.80% of the PCF, highlighting the impact of grid electricity despite 50% renewable energy use.
- **Use Phase Significance:** The energy consumed over the product's 5-year lifespan (Scope 3, Category 11) contributes 16.15% to the PCF, driven by average European grid emissions for product usage.

Recommendations for Emission Reduction

- **Material Optimization:** Focus on engaging suppliers to identify and integrate lower-carbon alternatives, increase recycled content, and explore lightweighting opportunities for components like plastics and metals.
- **Renewable Energy Expansion:** Intensify efforts to increase the share of renewable energy utilized in manufacturing facilities, particularly in China, to further reduce Scope 2 emissions beyond the current 50%.
- **Supply Chain Decarbonization:** Collaborate with both upstream and downstream logistics partners to optimize transport routes, transition to more fuel-efficient modes, and invest in lower-emission vehicles for reduced Scope 3 transport impacts.
- **Product Energy Efficiency:** Continue to innovate in product design and technology to significantly reduce energy consumption during the product's use phase, thereby mitigating a key Scope 3 hotspot.
- **Circular Economy Initiatives:** Expand existing product take-back and refurbishment programs, and invest in advanced recycling technologies to maximize material recovery and further enhance the positive carbon credits from End-of-Life activities.