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Product Carbon Footprint for odtlvrqftx

Company: vvhehepizf | Standard: GHG Protocol | Production Country: China

Overall Footprint

160.78 kgCO2e

TOTAL PCF

160.78

kgCO₂e / unit

CARBON INTENSITY

160.78

kgCO₂e / unit

TOP EMISSION HOTSPOT

Use Phase

150 kgCO₂e

PRIMARY EMISSION SCOPE

Scope 3

Value Chain Focus

Lifecycle Stage Breakdown

Use Phase	150 kgCO2e (93.3%)
Material Acquisition	8.2 kgCO2e (5.1%)
Manufacturing	2.25 kgCO2e (1.4%)
Transportation	0.39 kgCO2e (0.2%)
End-of-Life	-0.06 kgCO2e (Net Saving)

Material Composition vs Carbon Impact (Upstream)

Aluminum Frame	6.4 kgCO2e (78%)
Circuit Board	1.2 kgCO2e (15%)
Plastic Casing	0.5 kgCO2e (6%)
Packaging Cardboard	0.1 kgCO2e (1%)

Key Emission Insights

- The **Use Phase** is the overwhelmingly dominant emission hotspot, contributing approximately 93.3% of the total carbon footprint, primarily due to product energy consumption.
- **Material Acquisition** represents the second largest impact, with the Aluminum Frame identified as the most carbon-intensive component within upstream materials.
- Significant emission mitigation efforts are evident, with **75% renewable energy** used in manufacturing and **80% product recyclability**, leading to a net carbon saving at the End-of-Life phase.

Action Plan: Reducing Footprint

- 1** ****Optimize Use Phase:**** Prioritize R&D for significantly more energy-efficient product designs, explore smart features, and enhance user education on sustainable product operation.
- 2** ****Enhance Supply Chain Data:**** Proactively collaborate with suppliers to secure primary emission data for raw materials and components, reducing reliance on generic emission factors.
- 3** ****Renewable Energy Sourcing:**** Strategically increase renewable energy integration beyond the current 75% at manufacturing facilities and investigate opportunities across the broader supply chain.
- 4** ****Circular Economy Integration:**** Fortify and promote take-back and recycling programs, focusing on design for disassembly and material purity to maximize material recovery and minimize end-of-life impacts.
- 5** ****Logistics Efficiency:**** Implement advanced logistics optimization strategies to reduce transport-related emissions, particularly targeting high-impact segments like air cargo.