toinlnekus Product Carbon Footprint

Company: xevezenfsf | **Standard:** GHG Protocol | **Production:** China

31.08 kg CO2e

Total PCF (per 1.0 unit)

Total Footprint

31.08 kg CO2e

Per 1.0 unit of toinlnekus

Carbon Intensity

31.08 kg CO2e/unit

Functional unit: 1.0 unit

Top Material Hotspot

Plastic Casing

1.25 kg CO2e from materials

Primary Emission Scope

Scope 3

30.89 kg CO2e (99.39% of total)

Lifecycle Stage Breakdown

Materials (Scope 3, Cat 1)	9.01%
Manufacturing (Scope 2)	0.61%
Transportation (Scope 3, Cat 4 & 9)	0.77%
Use Phase (Scope 3, Cat 11)	89.60%
End-of-Life (Scope 3, Cat 12)	0.00%

Material Carbon Impact

Plastic Casing	44.64% (1.25 kg CO2e)
Copper Wire	28.57% (0.80 kg CO2e)
Circuit Board	26.79% (0.75 kg CO2e)

Based on total material emissions (2.80 kg CO2e)

Key Insights & Hotspots

- **Dominant Use Phase Emissions:** The product's energy consumption during its 5-year lifespan accounts for a substantial 89.60% of its total carbon footprint (27.85 kg CO2e). This highlights the critical need for energy efficiency in product design and user behavior.
- **Material Impact:** Raw material acquisition, primarily driven by the Plastic Casing, contributes 9.01% (2.80 kg CO2e) to the total PCF. Optimizing material choices and increasing recycled content are key areas for reduction.
- **Global Supply Chain Emissions:** Transportation, covering both upstream raw material delivery and downstream product distribution over 2000 km, contributes 0.77% (0.24 kg CO2e). While smaller in proportion compared to the Use Phase, this indicates an area for supply chain optimization, such as local sourcing or more efficient logistics.

Action Plan for Reduction

- **Enhance Product Energy Efficiency:** Redesign components or firmware to drastically reduce energy consumption during the 5-year use phase. Explore lower-power alternatives or "sleep" modes.

- **Sustainable Material Sourcing:** Investigate alternative materials for the Plastic Casing with lower embedded carbon, such as recycled plastics or bio-based polymers. Work with suppliers to understand and improve their own carbon footprints.

- **Optimize Logistics:** Evaluate opportunities for optimizing transportation routes, consolidating shipments, or shifting to lower-emission transport modes (e.g., rail or sea freight) where feasible for the long-distance legs of the supply chain.

- **Boost Circularity:** Leverage the 60% recyclability and circular/take-back programs ('sdfqjvylvt') to maximize material recovery and reduce landfill impact, aligning with the 2026 LSR Standard's emphasis on circularity.