Product Carbon Footprint Dashboard

Product: **esxgwxtnwn** by pizumkrwsv

Standard: GHG Protocol | Boundary: factory_gate (with extended downstream)

35.57 kgCO2e

Total Product Carbon Footprint

Powered by carboncalcpcf.com

Total Footprint

35.57 kgCO2e

Carbon Intensity

35.57 kgCO2e/unit

Top Material Hotspot

Aluminium (1.80 kgCO2e)

Primary Emission Scope

Scope 3 (Use Phase)

Lifecycle Stage Breakdown

Use Phase	30.00 kgCO2e (84.33%)
Raw Material Acquisition	3.43 kgCO2e (9.62%)
Manufacturing Energy (Scope 2)	1.71 kgCO2e (4.81%)
Downstream Transport	0.26 kgCO2e (0.73%)
End-of-Life	0.14 kgCO2e (0.40%)
Upstream Transport	0.04 kgCO2e (0.10%)

Material Carbon Impact

Aluminium	1.80 kgCO2e
ABS Plastic	0.88 kgCO2e
Circuit Board	0.40 kgCO2e
Copper Wire	0.20 kgCO2e
Packaging Cardboard	0.15 kgCO2e

Highlights & Key Insights

- ✓ The **Use Phase** is the overwhelming primary emission hotspot, accounting for over 84% of the total PCF due to specified energy consumption over its lifespan.
- ✓ **Raw Material Acquisition** is the second most significant contributor (9.62%), with Aluminium identified as a key material hotspot.
- ✓ **Manufacturing Energy (Scope 2)** represents a notable portion (4.81%), indicating the impact of the energy mix used in the production facility.

Recommendations for Reduction

- ✓ **Use Phase Optimization:** Investigate opportunities to reduce energy consumption during product use, through design, alternative power, or extended lifespan.
- ✓ **Material Optimization:** Explore lower-carbon alternative materials and engage with suppliers for primary emission data for high-impact components.
- ✓ **Renewable Energy Expansion:** Increase renewable energy sourcing in manufacturing operations in China to further reduce Scope 2 emissions.
- ✓ **Logistics Optimization:** Optimize transport routes, modes, and load factors to minimize emissions from both upstream and downstream logistics.
- ✓ **Enhance Circularity:** Leverage the established take-back program to maximize reuse and high-quality recycling, minimizing waste sent to landfill.