

html

Product Carbon Footprint Dashboard

Product: mfpyoopkvv | **Company:** iwkteesquw

Boundary: factory_gate | **Standard:** GHG Protocol

20.00 kg CO₂e

Total PCF per Unit

Carbon Intensity

20.00 kg CO2e/unit

Top Material Hotspot

Circuit Board (1.5 kg CO2e)

Primary Emission Scope

Scope 3 (12.72 kg CO2e)

Production Country

China

Lifecycle Stage Breakdown

Contribution to total carbon footprint (kg CO2e per unit).

Raw Materials	3.95 kg CO2e (19.75%)
Production Energy (Scope 2)	7.325 kg CO2e (36.63%)
Transportation (Scope 3)	0.126 kg CO2e (0.63%)
Use Phase (Scope 3)	9.05 kg CO2e (45.25%)
End-of-Life (Credit)	-0.402 kg CO2e (-2.01%)

Key Highlights & Hotspots

- The **Use Phase** is the largest contributor, accounting for **45.25%** of the total PCF due to product energy consumption over its lifespan.
- **Production Energy** in China is a significant hotspot at **36.63%**, highlighting the impact of the grid mix despite 75% renewable energy usage.
- **Raw Materials** contribute nearly **20%** of emissions, with the **Circuit Board** identified as the top material hotspot (1.5 kg CO₂e).
- A **net carbon credit (-2.01%)** is achieved at End-of-Life, demonstrating effective circularity potential through high recyclability and take-back programs.

Material Carbon Impact Breakdown

Contribution of Bill of Materials to total material footprint (3.95 kg CO₂e).

Circuit Board	1.50 kg CO ₂ e (37.97%)
Plastic Casing	1.25 kg CO ₂ e (31.65%)
Lithium Battery	1.00 kg CO ₂ e (25.32%)
Copper Wire	0.20 kg CO ₂ e (5.06%)

Recommended Action Plan

Strategies for reducing the environmental impact of mfpypoopkwv:

- ✓ **Optimize Use Phase Efficiency:** Investigate opportunities to reduce energy consumption during the product's operational lifespan or encourage end-user renewable energy adoption.
- ✓ **Decarbonize Production Energy:** Increase renewable energy procurement beyond 75% at the China production facility or source from regions with lower grid emission factors.
- ✓ **Material Innovation:** Explore alternative, lower-carbon materials or design changes to reduce the impact of high-emission components like circuit boards and batteries.
- ✓ **Strengthen Circularity:** Expand product take-back and refurbishment programs to maximize material recovery and re-use, enhancing avoided emissions credits.

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