

Product Carbon Footprint

Dashboard

Product: wrnlepzmqq

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20.08 kg

CO₂e

Total PCF

carboncalcpcf.com

Total Footprint

20.08 kg CO₂e

Carbon Intensity

20.08 kg CO₂e/unit

Top Material Hotspot

Circuit Board

Primary Emission Scope

Scope 3 (90.99%)

Lifecycle Stage Breakdown

Materials (Cat 1)	20.81% (4.18 kg CO2e)
Production (Scope 2)	9.01% (1.81 kg CO2e)
Logistics (Cat 4)	0.30% (0.06 kg CO2e)
Use Phase (Cat 11)	69.71% (14.00 kg CO2e)
End-of-Life (Cat 12)	0.10% (0.02 kg CO2e)
Scope 1 (Direct)	0.00% (0.00 kg CO2e)

Material Composition vs Carbon Impact

Circuit Board	1.76 kg CO2e
Aluminum Casing	1.75 kg CO2e
Plastic Housing	0.525 kg CO2e
Packaging (Cardboard)	0.07 kg CO2e
Copper Wiring	0.08 kg CO2e

Highlights & Key Insights

- The **Use Phase (Category 11)** is the primary carbon hotspot, accounting for 69.71% of the total PCF, largely due to energy consumption over the product's 7-year lifespan.
- **Purchased Goods and Services (Category 1)**, primarily raw materials, represent the second largest hotspot at 20.81%, with the Circuit Board and Aluminum Casing being significant contributors.
- The total Product Carbon Footprint for one unit of wrnlepzmqq is **20.08 kg CO₂e**, calculated adhering strictly to the GHG Protocol and aiming for 95% Scope 3 coverage.

Recommended Action Plan

- **Enhance Energy Efficiency:** Focus on reducing the product's energy consumption during its use phase, and promote end-user adoption of renewable energy sources.
- **Material Optimization:** Explore lower-carbon alternative materials, increase recycled content, and optimize material usage to reduce embodied emissions from components like circuit boards and aluminum.
- **Supplier Engagement:** Collaborate with upstream suppliers on their decarbonization efforts and encourage transparent reporting of primary emissions data.
- **Extend Product Lifespan:** Implement strategies to increase product durability and lifespan, thereby amortizing embodied emissions over a longer period.