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Product Carbon Footprint for mfwhgxpjgq

carboncalcpcf.com

Total PCF

15.75

kg CO2e/unit

Total Footprint

15.75 kg CO2e

per 1.0 unit of mfwhgxpjgq

Carbon Intensity

15.75 kg CO2e

per unit manufactured

Top Material Hotspot

Aluminum Casing

0.50 kg CO2e (48.54% of material impact)

Primary Emission Scope

Scope 3

15.47 kg CO₂e (98.2% of total)

Lifecycle Stage Breakdown

Materials Acq. & Proc.	6.30%
Manufacturing	1.76%
Transport	0.17%
Use Phase	91.76%
End-of-Life (Net Benefit)	-3.76%

Top Material Carbon Impact

Aluminum Casing	48.54%
Circuit Board	29.13%
ABS Plastic Housing	14.56%
Copper Wiring	7.77%

Highlights & Key Insights

The **Use Phase** is the primary emission hotspot, contributing approximately 95% of the total Product Carbon Footprint.

Manufacturing benefits from **60% renewable energy usage**, significantly reducing Scope 2 emissions.

A net benefit at **End-of-Life** is achieved due to strong recyclability (75%) and a product take-back program.

Recommendations for Reduction

- **Prioritize Use Phase Efficiency:** Invest in energy-efficient components and designs to reduce operational impact.
- **Enhance Circularity:** Further efforts in design for disassembly and high-value recycling can maximize EoL benefits.
- **Supplier Engagement:** Collaborate with suppliers to gather specific data and identify upstream material reduction opportunities.
- **Optimize Logistics:** Explore sea or rail for long-haul transport to minimize shipping emissions.

Carbon Footprint Report for mfwhgxpjgq by hopnpxuwkw | Senior Sustainability Consultant: sfgkinnfkr
Generated May 19, 2026 | Adheres to GHG Protocol & 2026 LSR Updates