

Product Carbon Footprint Dashboard

carboncalcpcf.com

Product: **sywijigxtz** | Company: **gkzyunfxjg** | Standard: **GHG Protocol**

Total PCF: 18.38 kgCO₂e / unit

Total Footprint

18.38 kgCO₂e

per 1.0 unit

Carbon Intensity

18.38 kgCO₂e/unit

Functional Unit: 1.0 unit

Top Material Hotspot

Aluminum Casing

3.50 kgCO₂e (63.1%)

Primary Emission Scope

Scope 3

16.39 kgCO₂e (89.2%)

Lifecycle Stage Breakdown

Use Phase	13.03 kgCO ₂ e (70.9%)
Material Acquisition	5.55 kgCO ₂ e (30.2%)
Production	1.99 kgCO ₂ e (10.8%)
Transportation	0.15 kgCO ₂ e (0.8%)
End-of-Life	-2.34 kgCO ₂ e (-12.7%)

Material Carbon Impact

Aluminum Casing	3.50 kgCO ₂ e (63.1%)
Circuit Board	0.80 kgCO ₂ e (14.4%)
Plastic Enclosure	0.75 kgCO ₂ e (13.5%)
Copper Wiring	0.50 kgCO ₂ e (9.0%)

Key Insights & Hotspots

Dominant Use Phase Emissions: The product's operational lifespan contributes a staggering 70.9% of the total carbon footprint, highlighting energy consumption during use as the primary area for intervention.

Material Impact from Aluminum: Material acquisition, particularly the Aluminum Casing, is the second largest contributor (30.2%), with Aluminum alone accounting for over 63% of material-related emissions.

Net Benefit from Circularity: The End-of-Life phase shows a net carbon removal/avoidance (-12.7%) due to high recyclability (80%) and effective circular programs, demonstrating positive sustainability efforts.

Action Plan for Reduction

Optimize Use Phase Efficiency: Innovate to significantly reduce product energy consumption during operation through R&D in efficient components and standby modes.

Sustainable Material Sourcing: Explore lower-carbon alternatives for high-impact components like aluminum, and increase recycled content to further reduce virgin material demand.

Enhance Production Renewables: Strive for 100% renewable energy in the China production facility through direct procurement or on-site generation.