

html

# Carbon Footprint Dashboard for Product: Izdjqrzumont

**Company:** vzmudtzmwy | **Consultant:** sigrjxjvkg

**Standard:** GHG Protocol | **Boundary:** Cradle-to-Grave

**34.373**

kg CO<sub>2</sub>e / unit

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**34.373**

Total Carbon Footprint

(kg CO<sub>2</sub>e / unit)

**78.5%**

Largest Hotspot Contribution

(Use Phase)

**Scope 3**

Primary Emission Scope

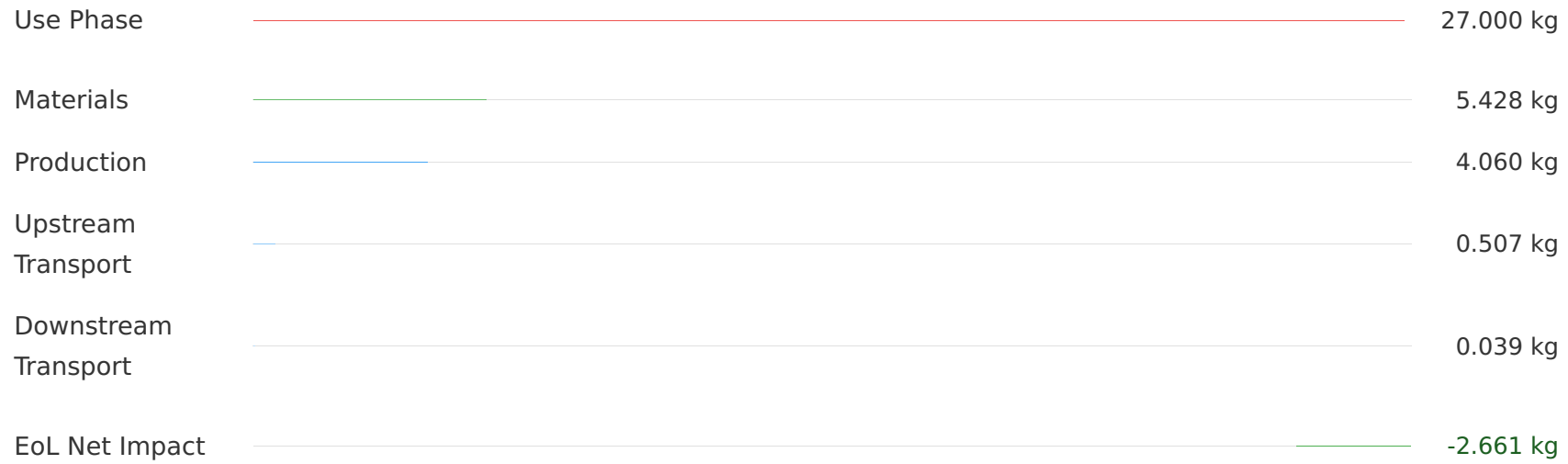
(30.313 kg CO<sub>2</sub>e)

**-2.661**

End-of-Life Savings

(kg CO<sub>2</sub>e from recycling)

## Carbon Footprint by Lifecycle Stage



\*Bars scaled relative to Use Phase (27.000 kg CO<sub>2</sub>e) for visualization. EoL indicates net savings.

## Material Carbon Impact (Top Contributors)

Aluminium Alloy	2.954 kg
ABS Plastic	1.050 kg
Steel	0.925 kg
Copper Wire	0.336 kg
Packaging (Card.)	0.150 kg
PCB	0.013 kg

\*Bars scaled relative to Aluminium Alloy (2.954 kg CO<sub>2</sub>e).

## Highlights: Key Emission Hotspots

**Use Phase Dominates:** The product's operational lifespan contributes a massive 78.5% of the total carbon footprint (27.000 kg CO<sub>2</sub>e/unit), making it the primary area for intervention.

**Material Acquisition Impact:** Raw materials, especially Aluminium Alloy, Virgin ABS plastic, and Copper wire, account for a significant 15.8% (5.428 kg CO<sub>2</sub>e/unit) of emissions.

**Production Emissions:** Manufacturing in China contributes 11.8% (4.060 kg CO<sub>2</sub>e/unit) to the footprint, despite 30% renewable energy usage, due to reliance on the regional grid mix.

**Circular Economy Benefits:** End-of-Life treatment shows a net carbon saving of 2.661 kg CO<sub>2</sub>e/unit, highlighting the positive impact of robust recycling and take-back programs.

## Recommendations for Carbon Reduction

**Optimize Use Phase:** Redesign for ultra-low energy consumption during the 5-year lifespan. Educate users on renewable energy sources for product operation.

**Material Decarbonization:** Prioritize sourcing recycled content for Aluminium, Steel, and ABS. Explore innovative, lower-impact material alternatives.

**Green Manufacturing Expansion:** Increase renewable energy adoption at the China manufacturing facility beyond the current 30% to significantly reduce Scope 2 emissions.

**Enhance Circularity:** Strengthen existing take-back programs ( `zghgpqkzle` ) and explore new partnerships to maximize material recovery and quality recycling.

**Supply Chain Engagement:** Collaborate with upstream suppliers to implement emissions reduction strategies throughout their production and transportation processes.