

carboncalcpcf.com

# Product Carbon Footprint Dashboard

For Product: tgsnvizqil

**51.79** kg CO<sub>2</sub>e

Total Footprint

**51.79** kg CO2e

Carbon Intensity

**51.79** kg CO2e/unit

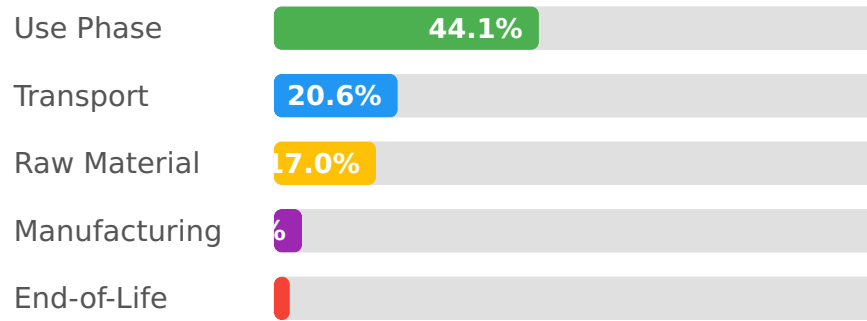
Top Hotspot Stage

**Use Phase** (44.1%)

Primary Emission Scope

**Scope 3** (94.4%)

## Lifecycle Stage Breakdown



## Top Material Carbon Impact\*



\*Percentage based on total material impact (10.41 kg CO2e)

## Key Highlights & Emission Hotspots

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- The **Use Phase** is the largest contributor to the product's footprint, accounting for 44.1% of total emissions, primarily due to energy consumption during its lifespan.
- **Transport** (20.6%) is a significant hotspot, with last-mile delivery often dominating due to lower efficiency per unit.
- **Raw Material Acquisition & Processing** (17.0%) is driven by high-impact components like Silicon Chips and Aluminum Alloy, contributing significantly despite relatively small quantities.

# Recommendations for Decarbonization

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- **Optimize Use Phase Efficiency:** Invest in R&D to significantly reduce product energy consumption and explore smart energy management features.
- **Enhance Logistics Efficiency:** Optimize last-mile delivery routes, consider lower-emission vehicles, and explore consolidated shipping for long-distance transport.
- **Sustainable Material Sourcing:** Focus on lower-carbon alternatives for high-impact materials and engage with suppliers for better data and greener production.
- **Strengthen Circular Economy:** Expand take-back programs, design for disassembly, and promote reparability to maximize material recovery and extend product lifespan.