carboncalcpcf.com

# PRODUCT: ZYJYGZXLIP

## Total Carbon Footprint: 29.64 kg CO2e/unit

Report by imjyngtnvt | Standard: GHG Protocol

**29.64**

TOTAL FOOTPRINT (KG CO2E)

**1.0**

FUNCTIONAL UNIT (UNIT)

# Aluminum Casing

TOP MATERIAL HOTSPOT

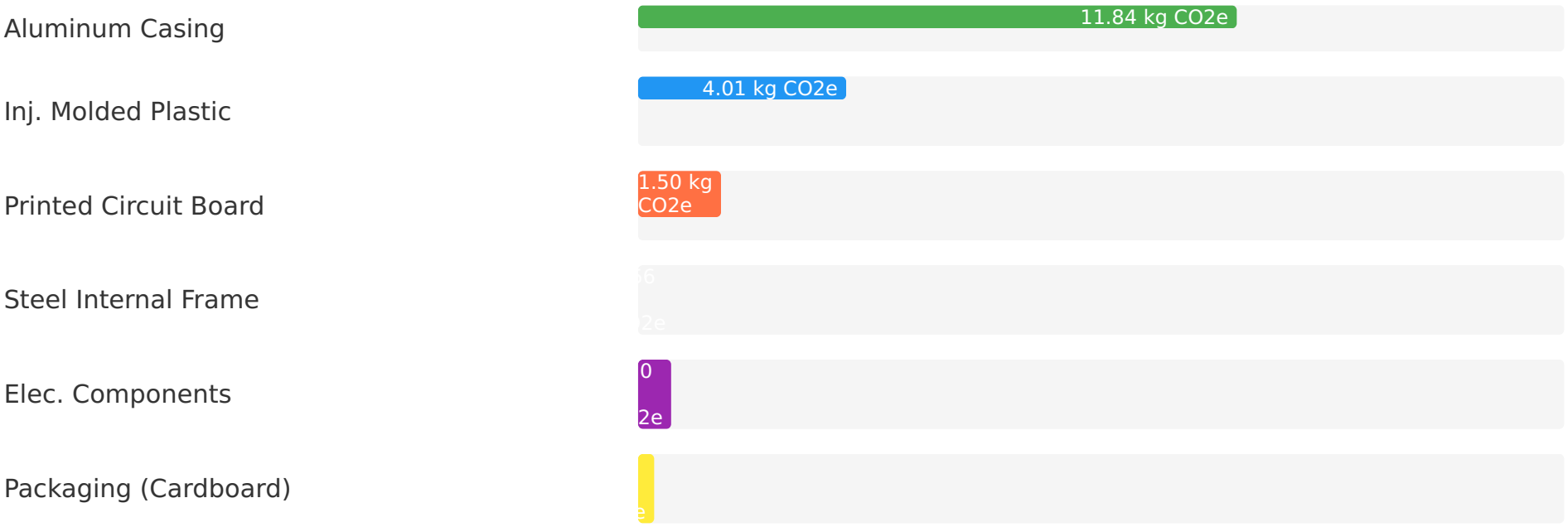
# Scope 3

PRIMARY EMISSION SCOPE

## Lifecycle Stage Breakdown


- Raw Materials (62.65%)
- Production Energy (10.46%)
- Upstream Transport (1.51%)
- Downstream Transport (0.65%)
- Use Phase (22.77%)
- End-of-Life (1.94%)

## Material Carbon Impact



## Key Emission Hotspots

- **Raw Material Acquisition** dominates with 62.65% of the total footprint, primarily from Aluminum and Injection Molded Plastic production.
- The **Use Phase** contributes significantly (22.77%) due to the product's 5-year energy consumption.
- **Manufacturing Energy**, despite 50% renewable usage, still accounts for 10.46% of emissions from non-renewable sources in China.

## Recommendations for Reduction

- ✓ **Material Decarbonization:** Prioritize sourcing lower-carbon alternative materials or increasing recycled content in high-impact components like aluminum and plastic.
- ✓ **Manufacturing Optimization:** Further increase renewable energy procurement at manufacturing facilities beyond the current 50% and explore energy efficiency measures.
- ✓ **Product Design for Efficiency:** Enhance product durability to extend lifespan and improve energy efficiency during the use phase through innovative design.
- ✓ **Strengthen Circularity:** Expand and promote take-back programs to maximize recycling rates and minimize waste sent to landfill.