

# Product Carbon Footprint

**Product:** jgujdzsht

**System Boundary:** factory\_gate

carboncalcpcf.com

Total PCF  
**36.18**  
kg CO<sub>2</sub>e

**36.18**

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

**36.18**

Carbon Intensity (kg CO<sub>2</sub>e per unit)

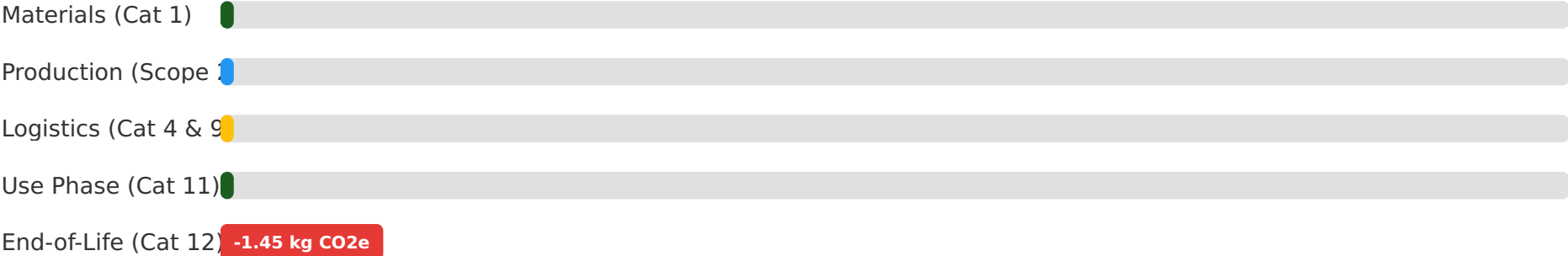
**Steel Casing**

Top Material Hotspot (1.48 kg CO<sub>2</sub>e)

**Use Phase**

Primary Emission Hotspot (Scope 3, Cat 11)

# Lifecycle Stage Breakdown



Product Lifecycle    Manufacturing Energy    Transportation    Carbon Reduction

## Material Carbon Impact



## Key Insights & Hotspots

- The **\*\*Use of Sold Products\*\*** accounts for the vast majority of the product's carbon footprint (82.36%), primarily due to energy consumption over its 5-year lifespan and the China electricity grid mix.
- **\*\*Purchased Goods and Services (Materials)\*\*** represent the second largest impact (11.28%), with steel and circuit boards being the most significant contributors within this category.
- **\*\*Manufacturing energy consumption (Scope 2)\*\*** contributes notably (5.76%), despite an illustrative 30% renewable energy usage at the China production facility.

- End-of-Life treatment shows a **\*\*net carbon reduction of 1.45 kg CO2e\*\***, illustrating the benefit of the illustrative 70% recyclability and take-back programs.

## Recommended Action Plan for Reduction

1. **Optimize Use-Phase Energy Efficiency:** Redesign the product to significantly minimize its energy consumption during customer use to address the largest emission hotspot.
2. **Sustainable Sourcing:** Collaborate with suppliers to obtain primary, cradle-to-gate emission data for key materials and prioritize sourcing from lower-carbon suppliers.
3. **Increase Renewable Energy in Manufacturing:** Further increase renewable energy procurement at the China production facility beyond current levels.
4. **Enhance Circularity:** Strengthen take-back programs and prioritize design-for-recyclability to maximize material recovery and avoided emissions.
5. **Supplier Engagement:** Implement a robust program to gather primary data for all Scope 3 categories and prepare for upcoming reporting requirements like the 2026 LSR Standard.