

carboncalcpcf.com

Product Carbon Footprint Dashboard for ksjjityggh

Total PCF
49.47 kg CO2e

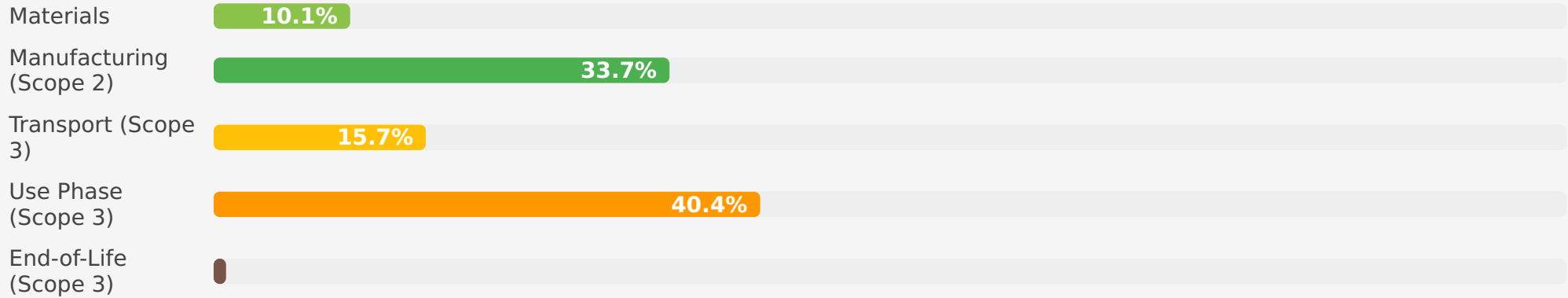
Carbon Intensity **49.47 kg CO2e** per 1.0 unit

Top Emission Hotspot **Use Phase** 40.4% of total PCF

Primary Emission Scope **Scope 3** Upstream & Downstream

Manufacturing Renewables **25%** of electricity used

Lifecycle Stage Breakdown



Key Product Attributes

Product Lifespan: 5 years

Annual Use Energy: 10 kWh/year

Recyclability: 80%

Circular Programs: Yes, with repair and refurbishment options

These attributes play a crucial role in the product's overall lifecycle impact and its potential for circularity.

Key Hotspots & Highlights

- **Use Phase (40.4%):** Energy consumption during operational lifespan is the largest contributor, emphasizing the need for energy-efficient design.
- **Manufacturing (33.7%):** Electricity use in production, despite renewable efforts, remains a significant impact area.
- **Last-Mile Delivery (15.2%):** High emission factors for last-mile logistics contribute disproportionately to the footprint.

Recommendations for Decarbonization

1. **Optimize Use Phase Energy Efficiency:** Design for reduced energy consumption during product operation and encourage sustainable user behavior.
2. **Decarbonize Manufacturing Energy:** Increase renewable energy usage in manufacturing beyond 25% through PPAs or on-site generation.
3. **Refine Logistics for Last-Mile:** Explore lower-emission alternatives like electric vehicles or optimized routes for delivery.
4. **Material Optimization:** Review Bill of Materials for lower-carbon materials or reduced material quantities.
5. **Enhance Circularity:** Expand take-back programs to maximize product lifespan through repair, refurbishment, and advanced recycling.