

Product Carbon Footprint for xvytwzptvx (Eco-Widget 2000)

Powered by carboncalcpcf.com

156.69 kg CO₂e

Total PCF for 1.0 unit

Total Carbon Footprint

156.69 kg CO₂e

For 1.0 unit of Eco-Widget 2000

Carbon Intensity

156.69 kg CO₂e/unit

Based on 1.0 unit functional unit

Primary Emission Hotspot

Use Phase (83.17%)

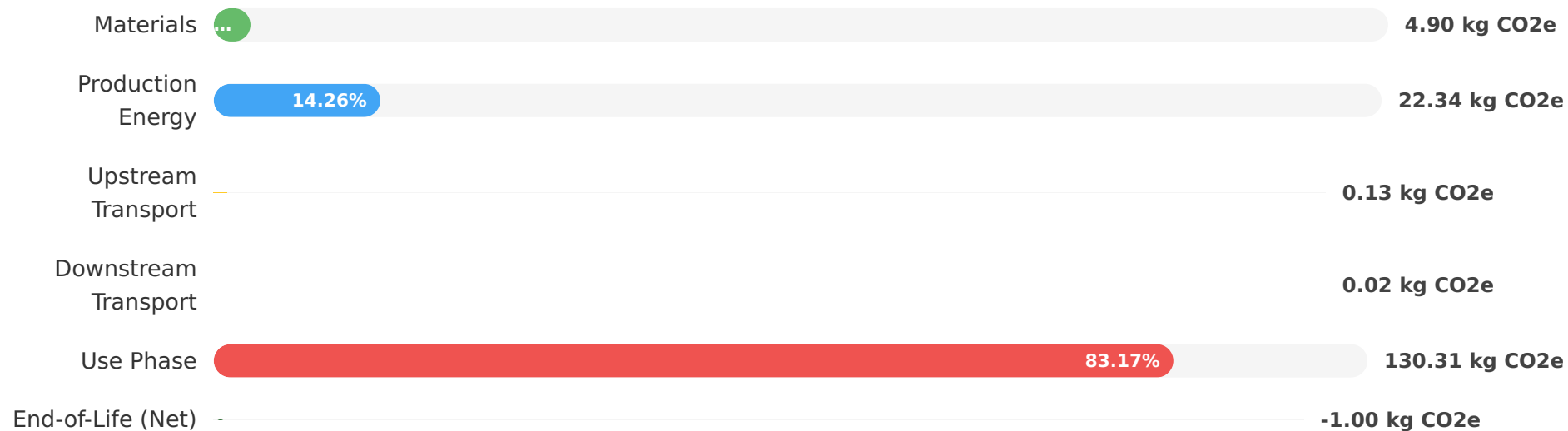
Energy consumption during product lifespan

Production Renewable Energy

70%

Portion of energy from renewable sources

Lifecycle Stage Breakdown



Material Carbon Impact



Key Highlights

- The **Use Phase** accounts for the majority of the product's carbon footprint (83.17%), primarily due to energy consumption over its 7-year lifespan.
- **Production Energy** is the second largest contributor (14.26%), indicating a significant opportunity to further integrate 100% renewable energy sources in manufacturing.
- **Materials** contribute a smaller but notable 3.13%, with Aluminum Casing being the most impactful material, suggesting potential for low-carbon material alternatives.
- The **End-of-Life** phase shows a net carbon saving due to high recyclability (85%) and the existing take-back program.

How to Reduce Carbon Footprint

1. **Optimize Use Phase Efficiency:** Explore designs for lower energy consumption during product use, or encourage users to utilize renewable energy sources.
2. **Enhance Renewable Energy Adoption:** Increase the percentage of renewable energy used in manufacturing operations beyond the current 70% to significantly reduce Scope 2 emissions.
3. **Source Low-Carbon Materials:** Investigate alternative materials for components like the Aluminum Casing with lower embodied carbon footprints.
4. **Expand Circularity:** Further develop take-back programs and increase the recyclability percentage to maximize End-of-Life benefits.