carboncalcpcf.com

Product Carbon Footprint Dashboard: humtdozumh

Total PCF

31.96 kg CO_2e

Total Carbon Footprint

31.96 kg CO_2e

Per 1.0 unit of humtdozumh

System Boundary

Cradle-to-Grave

Comprehensive lifecycle analysis

Top Material Hotspot

Aluminum Frame

1.60 kg CO_2e contributes significantly

Primary Emission Scope

Key Insights

- **Use Phase (39.11%):** The energy consumption during the product's 5-year lifespan is the largest contributor to its carbon footprint.
- **Downstream Transportation (31.59%):** Last-mile delivery and international shipping significantly impact the footprint, primarily due to the assumed last-mile delivery method.
- **Manufacturing (Purchased Electricity) (15.53%):** Despite 60% renewable energy usage, the remaining grid electricity in China contributes a notable portion.

Recommendations for Carbon Reduction

1. **Optimize Use Phase Efficiency:** Invest in R&D to significantly reduce the product's energy consumption during its use phase. Explore longer lifespans and modular design for easier upgrades.
2. **Refine Logistics Network:** Investigate more efficient last-mile delivery solutions (e.g., electric vehicles, optimized routing, higher load factors). Explore opportunities for modal shifts (e.g., rail for long-haul within Europe) where feasible.
3. **Enhance Renewable Energy Procurement:** Increase the percentage of renewable energy used in manufacturing operations in China, potentially through on-site generation, power purchase agreements (PPAs), or high-quality renewable energy certificates.