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Product Carbon Footprint Dashboard for hxsgtxldjd

Product: hxsgtxldjd (1.0 unit)

Boundary: Factory Gate | **Country:** China | **Standard:** GHG Protocol

47.34 kg CO₂e

Total PCF per unit

Total Footprint

47.34 kg CO₂e/unit

Carbon Intensity

47.34 kg CO₂e/unit

Top Material Hotspot

Steel (3.6 kg CO₂e)

Primary Emission Scope

Scope 3 (Value Chain)

Lifecycle Stage Breakdown

Use Phase	28.00 kg CO2e (59.1%)
Logistics	8.41 kg CO2e (17.8%)
Materials	6.10 kg CO2e (12.9%)
Production	4.80 kg CO2e (10.1%)
End-of-Life	0.04 kg CO2e (0.1%)

Top Material Carbon Impact

Steel	3.6 kg CO2e
Plastic (ABS)	1.5 kg CO2e
Electronics	1.0 kg CO2e

Key Highlights & Hotspots

- The **Product Use Phase** is the most significant carbon hotspot, accounting for over half of the total PCF due to energy consumption over its lifespan.
- **Downstream Transportation** (last-mile delivery) is a substantial contributor, highlighting logistics as a key area for optimization.
- **Material Acquisition** is the third-largest impact, emphasizing the importance of sustainable sourcing and material choices.

Recommendations for Reduction

- **Optimize Use Phase:** Implement design changes to reduce product energy consumption significantly.
- **Enhance Logistics Efficiency:** Improve transport routes, consider lower-emission modes, and collaborate on green delivery solutions.
- **Sustainable Material Sourcing:** Explore lower-carbon materials, increase recycled content, and source from certified sustainable origins.
- **Expand Renewable Energy:** Further increase the share of renewable energy in manufacturing operations.
- **Integrate Circularity:** Maximize the "Product refurbishment and component reuse program" to extend product lifespans.