

Product Carbon Footprint for **hdfonzlksd**

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carboncalcpcf.com

32.23 kgCO₂e

Total Footprint

32.23

kgCO₂e per unit

Carbon Intensity

32.23

kgCO₂e/unit

Top Material Hotspot

Aluminum Casing

7.50 kgCO₂e (23.27% of total)

Primary Emission Scope

Scope 3

30.97 kgCO₂e (96.16% of total)

Lifecycle Stage Breakdown

Materials Acquisition	10.75 kgCO2e (33.36%)
Manufacturing (Scope 2)	1.26 kgCO2e (3.91%)
Logistics (Transport)	0.13 kgCO2e (0.40%)
Use Phase	20.00 kgCO2e (62.06%)
End-of-Life	0.09 kgCO2e (0.28%)

Material Carbon Impact Breakdown (of 10.75 kgCO2e Material Emissions)

Aluminum Casing	7.50 kgCO2e (69.77%)
Circuit Board	2.50 kgCO2e (23.26%)
ABS Plastic Parts	0.60 kgCO2e (5.58%)
Packaging (Cardboard)	0.15 kgCO2e (1.40%)

Highlights & Hotspots

- The Use Phase accounts for the majority of the footprint at **62.06%** due to energy consumption over the product's lifespan.
- Material Acquisition contributes significantly with **33.36%**, primarily from Aluminum Casing and Circuit Board production.
- Scope 3 emissions (value chain) dominate, representing **96.16%** of the total PCF, highlighting upstream and downstream impacts.

Recommendations for Reduction

- ✓ **Optimize Use Phase Efficiency:** Redesign hdfonzlksd to drastically reduce annual energy consumption during its operational life.
- ✓ **Decarbonize Material Supply Chain:** Engage with suppliers of high-impact materials (Aluminum, Electronics) to promote recycled content and low-carbon processes.
- ✓ **Enhance Circular Economy:** Leverage existing take-back programs to maximize material recovery, reuse, and high-quality recycling efforts.