carboncalcpcf.com

Product Carbon Footprint Analysis

Product: eimdrnnotg
Production Country: China | Standard: GHG Protocol

16.53
kg CO2e
Total Product Footprint

Total Footprint

16.53 kg CO2e

Carbon Intensity

16.53 kg CO2e / unit

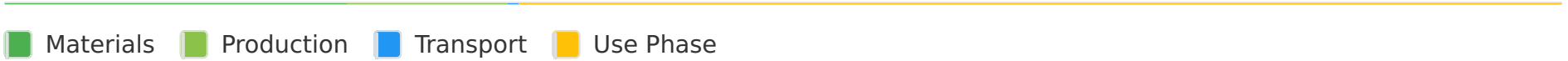
Top Material Hotspot

Plastic Casing (2.00 kgCO2e)

Primary Emission Scope

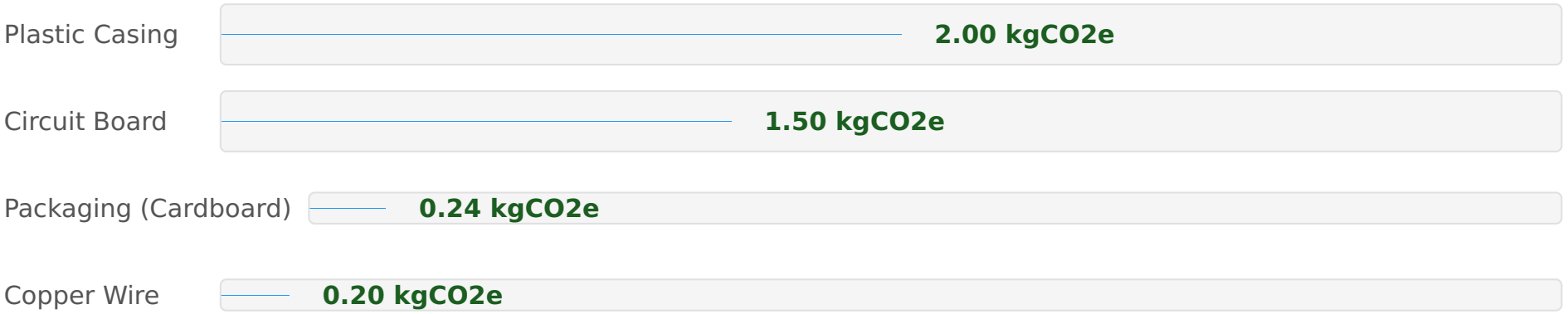
Scope 3 (Use Phase)

Lifecycle Stage Breakdown



End-of-Life treatment provides a net carbon credit of -1.39 kgCO2e, reducing overall impact.

Material Carbon Impact



Key Insights & Hotspots

The **Use Phase** dominates the product's carbon footprint, accounting for approximately 72.6% of total emissions (12.00 kgCO2e).

Material Acquisition & Manufacturing is the second largest contributor, making up about 23.8% of emissions (3.94 kgCO2e).

End-of-Life treatment generates a significant net carbon credit of -1.39 kgCO2e, primarily due to the high recyclability (70%) and established take-back programs.

Recommended Action Plan

1. **Optimize Use Phase Energy Efficiency:** Focus on reducing the product's energy consumption during its active lifespan through design improvements or by influencing user behavior.
2. **Decarbonize Supply Chain (Materials):** Investigate lower-carbon alternatives for significant material inputs, particularly those with high emission factors (e.g., electronics, plastics).
3. **Increase Renewable Energy in Production:** Continue to increase renewable energy usage at the manufacturing facility in China beyond the current 40% to further reduce Scope 2 emissions.
4. **Enhance Circularity:** Explore opportunities to increase the recyclability percentage and expand take-back programs, potentially covering more components or offering higher-value recovery options.
5. **Logistics Optimization:** While transport is a smaller contributor, optimizing routes, consolidating shipments, and exploring lower-emission transport modes can lead to further reductions.