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carboncalcpcf.com / Product Carbon Footprint Report

xqjmhudnde

(1.0 unit, factory_gate)

Total Carbon Footprint

66.52

kgCO₂e/unit

Total Footprint

Overall environmental impact of the product.

66.52 kgCO₂e

Carbon Intensity

Emissions per functional unit.

66.52 kgCO₂e/unit

Top Material Hotspot

Highest emitting material in the Bill of Materials.

Steel Alloy (9.0 kgCO₂e)

Primary Emission Scope

Largest contributor by GHG Protocol scope.

Key Insights & Hotspots

- **Use Phase Dominance:** The product's Use Phase accounts for over half of the total footprint (52.61%), making it the most critical emission hotspot.
- **Material Impact:** Purchased Goods and Services contribute significantly (26.31%), with Steel Alloy being the largest single material contributor (51.43% of material impact).
- **Logistics Contribution:** Downstream transportation, especially last-mile delivery, represents a notable portion of the product's emissions (16.25%).

Action Plan: How to Reduce Footprint

- **Optimize Use Phase:** Focus on improving product energy efficiency and encouraging end-users to utilize renewable energy sources.
- **Sustainable Materials:** Prioritize sourcing lower-carbon materials, increasing recycled content, and exploring lightweight design.
- **Green Logistics:** Investigate alternative transportation modes, optimize delivery routes, and leverage electric vehicles for distribution.
- **Enhance Circularity:** Further develop and promote take-back schemes, and ensure high material recovery rates at End-of-Life.

Report generated by carboncalcpcf.com - Adhering to GHG Protocol Standards. All values are illustrative.