

carboncalcpcf.com

Total Product Carbon Footprint (1 unit)

23.12 kg CO₂e

PRODUCT

ntnjsjsyuw

STANDARD

GHG Protocol

CARBON INTENSITY

23.12 kg CO₂e

per unit

TOP MATERIAL HOTSPOT

Aluminum Alloy

(46.5% of material impact)

PRIMARY EMISSION SCOPE

Use Phase

(86.5% of total PCF)

Lifecycle Stage Breakdown

Use Phase		86.5%
Raw Materials		9.3%
Transportation		3.9%
Manufacturing (S2)		0.2%
End-of-Life		0.1%
Manufacturing (S1)		0.0%

- The **Use Phase** is the dominant carbon hotspot, accounting for 86.5% of the total Product Carbon Footprint due to energy consumption over its 5-year lifespan.
- Raw materials contribute significantly (9.3%), with **Aluminum Alloy** identified as the primary material hotspot (46.5% of material emissions).
- Transportation of materials and the finished product accounts for 3.9% of the total footprint, highlighting logistics as an area for optimization.

Recommendations for Carbon Reduction

- **Optimize Use Phase:** Prioritize R&D to enhance the energy efficiency of ntnjsjsyuw, exploring alternative low-carbon energy sources or design modifications to reduce operational energy needs.
- **Sustainable Material Sourcing:** Actively seek materials with lower embedded carbon, increase the use of recycled content, and collaborate with suppliers on their decarbonization initiatives.
- **Logistics Optimization:** Investigate more efficient and lower-emission transport modes for both upstream component delivery and downstream product distribution, particularly for long-haul routes.
- **Enhance Circularity:** Further strengthen and expand product take-back and recycling programs to achieve higher recovery rates and effectively reintegrate materials into new production cycles.