

carboncalcpcf.com

# Product Carbon Footprint Dashboard

for ylrpksiznh

**52.38** kgCO<sub>2</sub>e/unit

Total Product Footprint

**52.38 kgCO<sub>2</sub>e**

Per 1.0 unit (Cradle-to-Grave)

Primary Emission Scope

**Scope 3**

98.57% of total PCF

Top Material Hotspot

**Steel Plate**

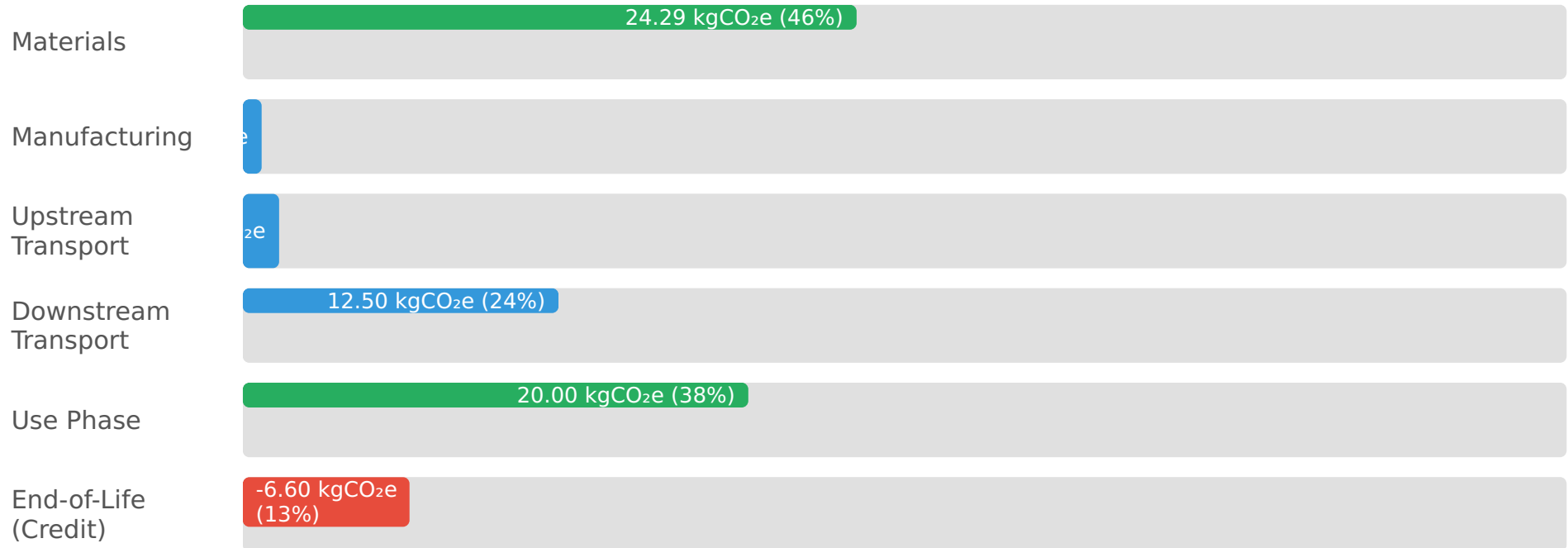
20.0 kgCO<sub>2</sub>e (82% of material impact)

End-of-Life Impact

**-6.60 kgCO<sub>2</sub>e**

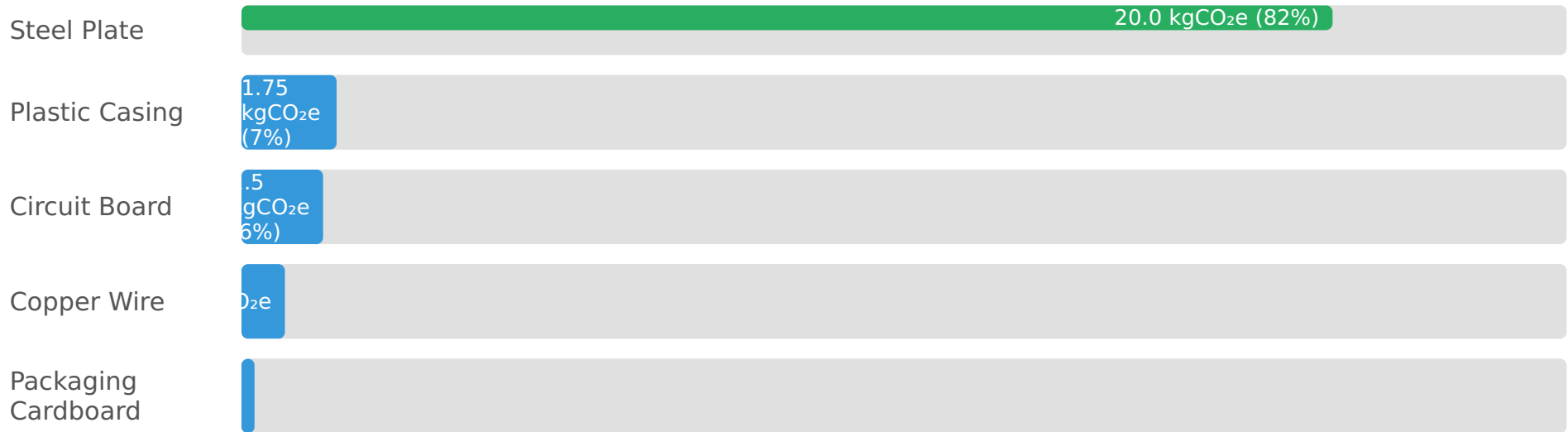
Net credit from high recyclability

## Lifecycle Stage Breakdown



# Material Carbon Impact

Breakdown of the 24.29 kgCO<sub>2e</sub> material footprint.



## Key Insights & Hotspots

- ✓ Raw Material Acquisition & Pre-processing (46%) and the Use Phase (38%) are the dominant emission hotspots in the product's lifecycle.
- ✓ Scope 3 emissions are highly significant, accounting for 98.57% of the total footprint, indicating extensive supply chain and downstream impacts.
- ✓ The End-of-Life phase provides a substantial carbon credit of -6.60 kgCO<sub>2e</sub> due to a high recyclability rate (70%) and an advanced circularity program.

## Recommendations for Reduction

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1. **Material Optimization:** Focus on sourcing lighter-weight, lower-carbon, or higher recycled content materials, especially for the steel plate.
2. **Energy Efficiency in Use:** Implement design improvements to reduce the product's energy consumption during its 5-year lifespan.
3. **Supply Chain Logistics:** Explore optimized routes and alternative, lower-emission transport modes for both upstream and downstream logistics.
4. **Enhance Circularity:** Leverage the advanced recycling and refurbishment program further to maximize material recovery and extend product lifespans.