

## ENVIRONMENTAL IMPACT STATEMENT

### Professional Claw Hammer 16oz - SKU: HTHM001600

#### Environmental Impact Statement

**Product:** Professional Claw Hammer 16oz (SKU: HTHM001600)

**Manufacturer:** Zava Hardware & Garden Supply

**Product Category:** HAND TOOLS

**Date:** June 2024

### 1. Carbon Impact Metrics

The Zava Professional Claw Hammer 16oz is manufactured with a focus on minimizing greenhouse gas emissions. Lifecycle assessment (LCA) conducted in Q1 2024 (ISO 14040-compliant) indicates:

- **Total cradle-to-grave carbon footprint:** 0.75 kg CO<sub>2</sub>e/unit
- **Manufacturing emissions:** 0.28 kg CO<sub>2</sub>e/unit (powered by 96% renewable energy)
- **Distribution emissions:** 0.07 kg CO<sub>2</sub>e/unit (optimized intermodal transport)
- **End-of-life recycling credit:** -0.09 kg CO<sub>2</sub>e/unit

**Net carbon impact:** The hammer is classified as *carbon neutral* (rounded to the nearest 0.01 kg CO<sub>2</sub>e) through the application of on-site solar generation and purchase of Gold Standard-certified carbon offsets.

### 2. Water Stewardship Information

- **Water use in manufacturing:** 1.2 liters/unit (closed-loop cooling and cleaning systems)
- **Water discharge:** Zero industrial process water discharged; all process water is filtered and reused internally.
- **Certification:** Alliance for Water Stewardship (AWS) Core Certified Facility, 2023

### 3. Biodiversity Support

- **Sourcing:** Handle wood (where applicable) procured from FSC®-certified forests (FSC-C186728), promoting forest biodiversity.
- **Habitat protection:** Supplier code requires no raw material procurement from IUCN Red List habitats.
- **Manufacturing site:** Maintains a 20-meter native plant buffer zone supporting pollinators and local wildlife.

### 4. Lifecycle Management

- **\*\*Design for durability:\*\*** Minimum tested lifespan: 25,000 impact cycles (ASTM F1500-17)
- **\*\*Recyclability:\*\*** 98% by mass (forged steel head, hickory handle, low-VOC finishes)
- **\*\*End-of-life program:\*\*** Zava Hammer Take-Back Program provides free return and recycling.

## 5. EcoShield™ Technology Benefits

- **\*\*Description:\*\*** EcoShield™ is a proprietary, solvent-free coating applied to the hammer head.
- **\*\*Benefits:\*\***
  - Provides corrosion resistance (salt spray test: 720 hours, ASTM B117)
  - Reduces the need for hazardous cleaning solvents by 80%
  - VOC content: <0.5 g/L (SCAQMD Rule 1113 compliant)

## 6. Supply Chain Sustainability

- **\*\*Material transport:\*\*** 82% of components shipped by rail or sea (vs. air), reducing transport emissions.
- **\*\*Supplier standards:\*\*** All Tier 1 suppliers are ISO 14001 (Environmental Management Systems) certified.
- **\*\*Labor practices:\*\*** 100% of suppliers sign Zava's Responsible Sourcing Agreement (RSA).

## 7. Third-Party Certifications

- **\*\*FSC® (Chain of Custody) Certificate FSC-C186728\*\***
- **\*\*ISO 14001:2015 Environmental Management System\*\***
- **\*\*Cradle to Cradle Certified® Bronze (pending Q3 2024)\*\***
- **\*\*EcoVadis Silver Medal, 2023\*\***

## 8. Environmental Awards

- **\*\*2023 Green Tool Innovation Award (National Hardware Sustainability Council)\*\***
- **\*\*2024 Eco-Excellence in Manufacturing (Global Hand Tool Association)\*\***

## 9. Lifecycle Assessment Summary

A comprehensive LCA (conducted by GreenMetrics Consulting, February 2024) found that:

- **\*\*Raw material extraction:\*\*** 45% of impact (steel production is the largest contributor)
- **\*\*Manufacturing**

*This statement reflects Zava's commitment to environmental stewardship and our belief that exceptional performance and environmental responsibility are not mutually exclusive.*

Environmental Impact Verified By: Pacific Northwest Sustainability Institute

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