Rebuilt® Verified
Product Carbon Footprint
Limited Assurance

ISO 14067
ISO 14064-3
EN 15804+A2
rebuilt.eco/pcf

# Recycled Blokstone
## Independently Verified Product Carbon Footprint (PCF) Full Report

29 January 2026

Rebuilt

# Table of Contents

# Document overview

This Product Carbon Footprint (PCF) report provides a transparent and verified account of the greenhouse gas (GHG) emissions associated with Recycled Blokstone.

This report has been prepared by the declaration owner using primary and secondary data. The report conforms to international standard ISO 14067 and it is compiled using a range of high quality data sources. The results of this report has been reviewed by a suitably qualified Rebuilt LCA professional and verified in accordance to ISO 14064-3. This report demonstrates the declaration owner's commitment to transparency, sustainability excellence and continuous improvement.

Users of this PCF are responsible for evaluating the applicability of the data for their intended purposes.

## Benefits of using this Product Carbon Footprint

This document can be used to:

- Inform your customers about the embodied emissions in your products
- Meet procurement and tender requirements
- Identify hot spots and opportunities for making improvements in carbon intensity over time
- Input into mandatory corporate carbon disclosure reporting.

## PCFs and EPDs: making comparisons

Both Product Carbon Footprints (PCFs) and Environmental Product Declarations (EPDs) are based on lifecycle assessment methodologies (ISO 14044), so their results are technically interoperable. However, comparisons should be approached with care:

- Data sources differ. Even within the same product category, PCFs and EPDs may draw on different reference datasets, assumptions, or cut-off rules, leading to variation in results.
- Rules matter. Results are only directly comparable if they apply the same Product Category Rules (PCRs), which set the boundaries and methods for assessment.
- Timing matters. PCFs and EPDs last for five years. Assessments carried out at different times may reflect changes in datasets, methodologies, or manufacturing processes.
- Lifecycle stages vary. Not all PCFs and EPDs cover the same modules (e.g. raw materials, manufacturing, transport, use, end-of-life). Different system boundaries can significantly affect results. Use the breakdown tables to compare like-for-like.
- Detail drives accuracy. Expert interpretation is often needed to judge whether results are genuinely comparable and to avoid misleading conclusions.
- Project context is key. The most meaningful comparison comes from assessing products in the context of the whole project or structure, not in isolation.

# Results at a glance

## Recycled Blokstone

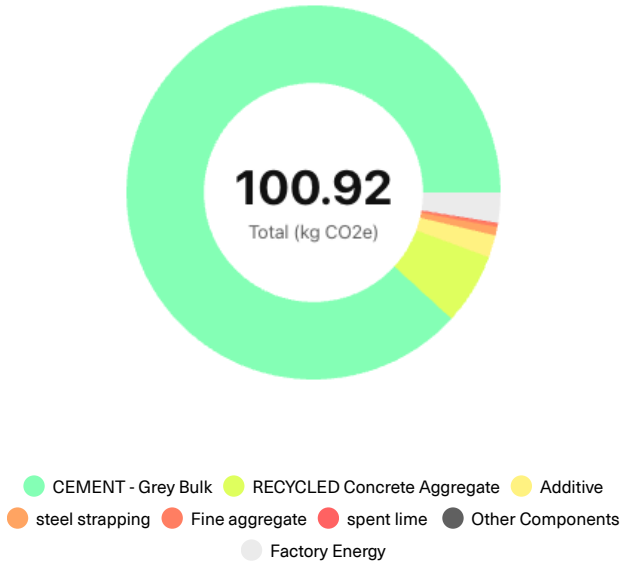
Midland Brick

Total upfront carbon (Fossil)
(A1-A3)

**100.92** Carbon Footprint
kg CO2e /tonne

## Carbon impact (Fossil)

Relative carbon impact of the components of the product




| Component name | Weight (kg) | kg CO2e | % of total kg CO2e |
|---|---|---|---|
| spent lime | 16.04 | 0.05 | 0.05 |
| Fine aggregate | 29.77 | 0.30 | 0.30 |
| CEMENT - Grey Bulk | 88.45 | 89.01 | 88.21 |
| Additive | 10.91 | 1.95 | 1.93 |
| RECYCLED Concrete Aggregate | 854.83 | 6.23 | 6.17 |
| ANGLE BOARD CORNERS - CARDBOARD 40KG/PLT-18900 | < 0.01 | < 0.01 | < 0.01 |
| steel strapping | 0.28 | 0.74 | 0.74 |
| Factory Energy | 0.00 | 2.64 | 2.61 |
| | Total (kg) | Total (kg CO2e) | |
| | 1,000.28 | 100.92 | |

### Carbon intensity by life cycle stage

Carbon impact from raw materials (A1), transport to factory (A2), production activities (A3), transport to site (A4), and installation (A5).

| Type | A1 (kgCO2e) | A2 (kgCO2e) | A3 (kgCO2e) |
|---|---|---|---|
| Fossil | 93.97 | 3.57 | 3.38 |
| Biogenic | 1.26 | 0.00 | -0.00 |
| Luluc | 0.02 | 0.00 | < 0.01 |
| | Total (kgCO2e) | Total (kgCO2e) | Total (kgCO2e) |
| | 95.25 | 3.57 | 3.38 |

# Report information

| | |
|---|---|
| Publication date | January 29, 2026 |
| Valid until | January 29, 2031 |
| Independently verified | Declaration owner generated report<br>Reviewed and verified by Rebuilt |
| Verifier contact | www.rebuilt.eco<br>verified@rebuilt.eco |
| Geographic scope | N/A |
| Data collection period | 1 July 2023 - 30 June 2024 |
| Standards compliance | ISO 14040, ISO 14044, ISO 14064-3, ISO 14067, ISO 14071 |
| Product Category Rules (PCR) | EN 15804+A2:2019 |

This PCF report has been created and verified in accordance with:

ISO 14067 ISO 14064 GREENHOUSE GAS PROTOCOL International Standard on Sustainability Assurance™ ISSA 5000

## Company information

| | |
|---|---|
| Declaration owner | Midland Brick |
| Company description | Midland Brick has been providing clay bricks, masonry pavers, clay pavers, retaining walls, roof tiles and Cultured Stone® to Western Australia for over 75 years. Midland Brick has been a pioneer and innovator within the building and construction industry, and are still regarded as one of WA's most recognised and respected brands. Midland Brick supply bricks and pavers to private individuals, small businesses and large multi-national companies across Australia, New Zealand and Asia. Midland Brick's brick and paver range can be purchased online, or through one of four conveniently located branches in the Perth metro area. |
| Company location | - |
| Manufacturing facility | BLOKSTONE Facility |
| Manufacturing location | Hazelmere WA, Australia |

# Product information

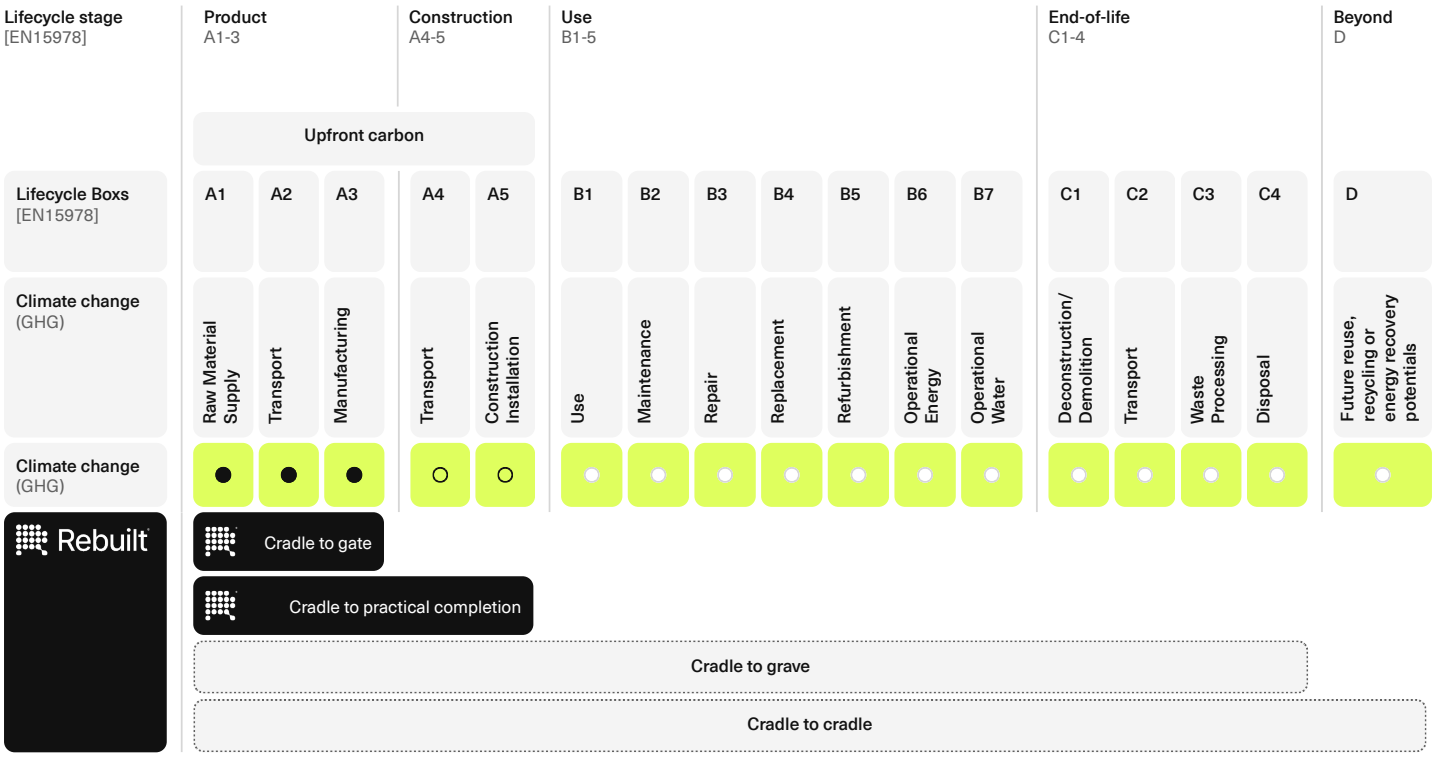
| | |
|---|---|
| Product name | Recycled Blokstone |
| SKU | RLR1000, RLR1000-1, RLRHBGY, RLRKEY, RLRSPLIT |
| Description | Our Blokstone Metre Block is an engineered block to provide uniform characteristics and tested strength enabling them to perform their intended function for years to come. These blocks are our largest size and are ideal for mass retaining walls, feature walls, screen walls and free-standing boundary walls.<br><br>Midland Brick stone blocks are available in a range of sizes and textures.<br><br>This PCF is for RLB Recycled Blokstone only. This product is typically used as "backing blocks" and proudly manufactured from predominantly recycled materials, sourced from the recycling of concrete.<br><br>https://www.midlandbrick.com.au/Products/B-locks/Limestone-Blocks?Size=1000mm |
| Net weight (kg) per declared unit | 1,000.00 |
| Declared unit | 1 tonne<br>For the purposes of this report, declared unit is taken to be an individual unit as sold. |
| Recycled content | 88.18% |
| ANZSIC | 2034 |
| UNICLASS code | Pr_20_93_52_01 |

# Technical information

## Report boundary

This declaration shows the global warming potential (GWP) of the greenhouse gases embodied in this product, expressed in kilograms of carbon dioxide and equivalent gasses with global warming potential (kgCO2-e) and is based on the results of a pre-verified LCA performed in accordance with ISO14067 process and procedure as well as ISO14025 and nominated PCR EN15804.

NOTE: This declaration is limited to the life cycle stages shown in the table below.




### A1 - Raw Material Extraction

The raw materials stage also called background or upstream covers the extraction and production of the raw materials needed to manufacture the product. It includes the processing of the extracted raw material to the point where it can be made into a recognisable part.

### A2 - Transport Raw Material to Factory

This stage outlines the calculation of $CO_2$ emissions (Stage A2) for transporting raw materials to the factory. It considers transport modes, distances travelled, and material weights to calculate emissions.

### A3 - Manufacturing

Converting raw materials into parts and made into the final product. It considers energy usage, packaging, process emissions and production waste.

### A4 - Transport to Site

Not reported as part of this scope

### A5 - Construction & Installation

Not reported as part of this scope

### B - Use Phase

Not reported as part of this scope

### C - End of Life

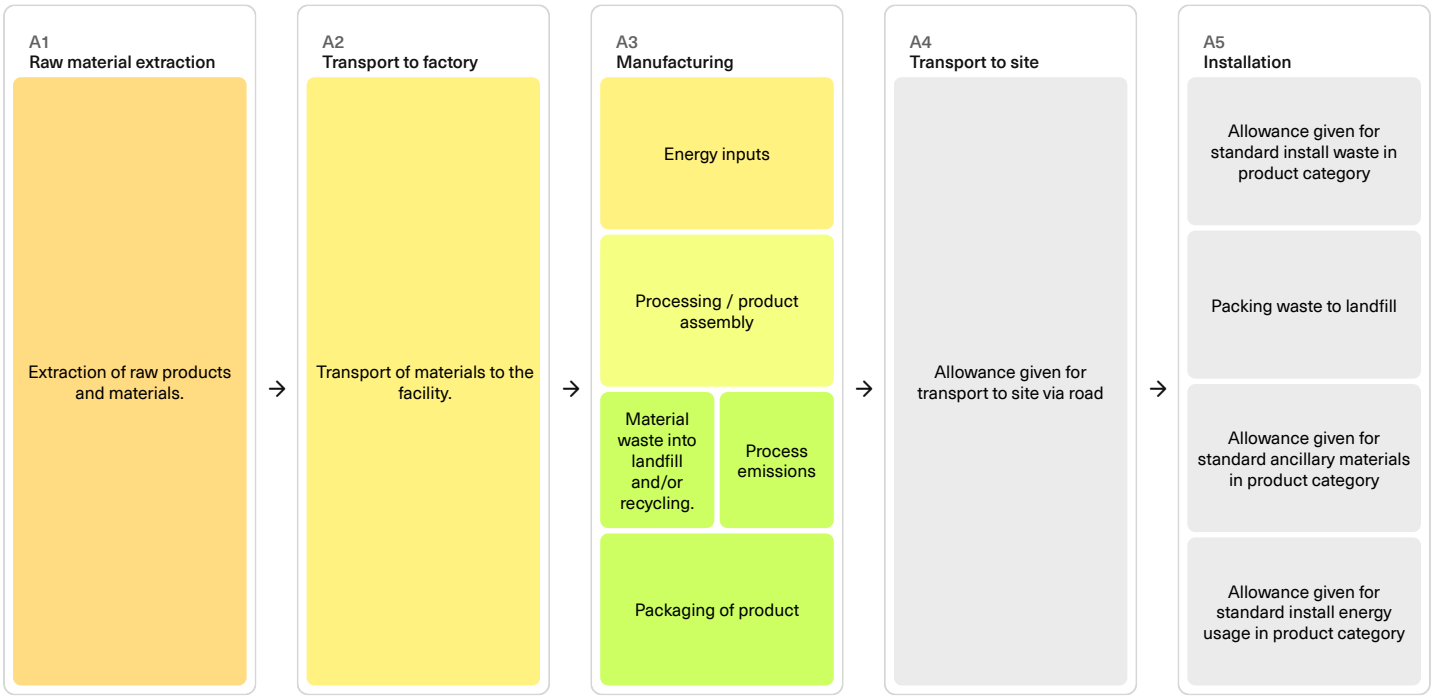
Not reported as part of this scope

### D - Beyond

Not reported as part of this scope

# Technical information (continued)

## Process flow diagram




Exclusions from A1
None

Exclusions from A2
None

Exclusions from A3
None

Exclusions from A4
Not reported as part of this scope

Exclusions from A5
Not reported as part of this scope

## Cut-off criteria

Individual processes may be excluded if their contributions to the total system's environmental impact are less than 1%. The aggregate cut-off criteria of this PCF follows PCR 2019:14 guideline where a minimum of 95% of total input (mass and energy) for each life cycle stage are included. Exclusions from the PCF is outlined in "Data Assumptions, Choices and Limitations".

The use stage is excluded from the study due to the uncertainty related to the multiple possible applications of the products assessed.

The following processes were left out of the system boundaries, in conformity to usual practices in carbon footprinting: labor, commuting of workers and administrative work.

## Allocation procedures

The allocation method for this PCF is based on a physical (mass) basis. The energy used by the product is allocated by normalising the total energy used in the factory to the total mass of the product to the total production mass output from the same factory.

# Results

Total upfront carbon (Fossil)
(A1-A3)

**100.92** Carbon Footprint
kg CO2e /tonne

## Carbon intensity by life cycle stage

| Type | A1 (kgCO2e) | A2 (kgCO2e) | A3 (kgCO2e) |
|---|---|---|---|
| Fossil | 93.97 | 3.57 | 3.38 |
| Biogenic | 1.26 | 0.00 | -0.00 |
| Luluc | 0.02 | 0.00 | < 0.01 |
| | Total (kgCO2e) | Total (kgCO2e) | Total (kgCO2e) |
| | 95.25 | 3.57 | 3.38 |

## Carbon intensity by raw material

| Material | GWP Fossil (kgCO2e) | GWP Biogenic (kgCO2e) | GWP Luluc (kgCO2e) | GWP Total (kgCO2e) |
|---|---|---|---|---|
| spent lime | 0.00 | 0.00 | 0.00 | 0.00 |
| Fine aggregate | 0.15 | < 0.01 | < 0.01 | 0.15 |
| CEMENT - Grey Bulk | 88.45 | 1.26 | 0.02 | 89.73 |
| Additive | 1.88 | < 0.01 | < 0.01 | 1.88 |
| RECYCLED Concrete Aggregate | 3.49 | < 0.01 | < 0.01 | 3.50 |
| | Total (kgCO2e) | Total (kgCO2e) | Total (kgCO2e) | Total (kgCO2e) |
| | 93.97 | 1.26 | 0.02 | 95.25 |

## Carbon intensity by transport type

| Material | Transport mode | GWP Fossil (kgCO2e) | GWP Biogenic (kgCO2e) | GWP Luluc (kgCO2e) | GWP Total (kgCO2e) |
|---|---|---|---|---|---|
| spent lime | By road, diesel truck, 16 to 28t, fleet average | 0.05 | 0.00 | 0.00 | 0.05 |
| Fine aggregate | By road, diesel truck, 16 to 28t, fleet average | 0.15 | 0.00 | 0.00 | 0.15 |
| CEMENT - Grey Bulk | By road, diesel truck, 16 to 28t, fleet average | 0.57 | 0.00 | 0.00 | 0.57 |
| ANGLE BOARD CORNERS - CARDBOARD 40KG/PLT-18900 | By road, diesel truck, 16 to 28t, fleet average | < 0.01 | 0.00 | 0.00 | < 0.01 |
| steel strapping | By road, diesel truck, 16 to 28t, fleet average | < 0.01 | 0.00 | 0.00 | < 0.01 |
| Additive | By road, diesel truck, 16 to 28t, fleet average | 0.07 | 0.00 | 0.00 | 0.07 |
| RECYCLED Concrete Aggregate | By road, diesel truck, 16 to 28t, fleet average | 2.73 | 0.00 | 0.00 | 2.73 |
| | | Total (kgCO2e) | Total (kgCO2e) | Total (kgCO2e) | Total (kgCO2e) |
| | | 3.57 | 0.00 | 0.00 | 3.57 |

# Results (Continue)

## Carbon intensity by energy source

| Energy type | GWP Fossil (kgCO2e) | GWP Biogenic (kgCO2e) | GWP Luluc (kgCO2e) | GWP Total (kgCO2e) |
|---|---|---|---|---|
| Purchased from grid (low voltage) | 0.68 | 0.00 | 0.00 | 0.68 |
| Diesel oil | 1.96 | 0.00 | 0.00 | 1.96 |
| | Total (kgCO2e) | Total (kgCO2e) | Total (kgCO2e) | Total (kgCO2e) |
| | 2.64 | 0.00 | 0.00 | 2.64 |

## Carbon intensity by packaging material

| Material | GWP Fossil (kgCO2e) | GWP Biogenic (kgCO2e) | GWP Luluc (kgCO2e) | GWP Total (kgCO2e) |
|---|---|---|---|---|
| ANGLE BOARD CORNERS - CARDBOARD 40KG/PLT-18900 | < 0.01 | -0.00 | < 0.01 | < 0.01 |
| steel strapping | 0.74 | 0.00 | < 0.01 | 0.74 |
| | Total (kgCO2e) | Total (kgCO2e) | Total (kgCO2e) | Total (kgCO2e) |
| | 0.74 | -0.00 | < 0.01 | 0.74 |

## Carbon intensity by process emissions

| Material | GWP Fossil (kgCO2e) | GWP Biogenic (kgCO2e) | GWP Luluc (kgCO2e) | GWP Total (kgCO2e) |
|---|---|---|---|---|
| | Total (kgCO2e) | Total (kgCO2e) | Total (kgCO2e) | Total (kgCO2e) |
| | 0.00 | 0.00 | 0.00 | 0.00 |

## Carbon intensity by waste treatment

| Material | Waste treatment type | GWP Fossil (kgCO2e) | GWP Biogenic (kgCO2e) | GWP Luluc (kgCO2e) | GWP Total (kgCO2e) |
|---|---|---|---|---|---|
| spent lime | N/A | 0.00 | 0.00 | 0.00 | 0.00 |
| Fine aggregate | N/A | 0.00 | 0.00 | 0.00 | 0.00 |
| CEMENT - Grey Bulk | N/A | 0.00 | 0.00 | 0.00 | 0.00 |
| Additive | N/A | 0.00 | 0.00 | 0.00 | 0.00 |
| RECYCLED Concrete Aggregate | N/A | 0.00 | 0.00 | 0.00 | 0.00 |
| | | Total (kgCO2e) | Total (kgCO2e) | Total (kgCO2e) | Total (kgCO2e) |
| | | 0.00 | 0.00 | 0.00 | 0.00 |

# References


- ISO 14040:2006+A1:2020 - Environmental management - Life cycle assessment - Principles and framework
- ISO 14044:2006+A2:2020 - Environmental management - Life cycle assessment - Requirements and guidelines
- ISO 14067:2018 (First Edition) - Greenhouse gases - Carbon footprint of products - Requirements and guidelines for quantification
- EN 15804:2012+A2:2019 - Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products
- Australian National Life Cycle Inventory Database (AusLCI) version 1.42 (May 2023)
- ecoinvent database v3.11 (November 2024)
- Australian National Greenhouse Accounts Factors 2024