Rebuilt® Verified
Product Carbon Footprint
Limited Assurance

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

Littlehampton Bricks and Pavers
Independently Verified Product Carbon Footprint (PCF) Full Report

14 October 2025

Rebuilt

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Document overview

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

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 fiver 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

Littlehampton Bricks and Pavers

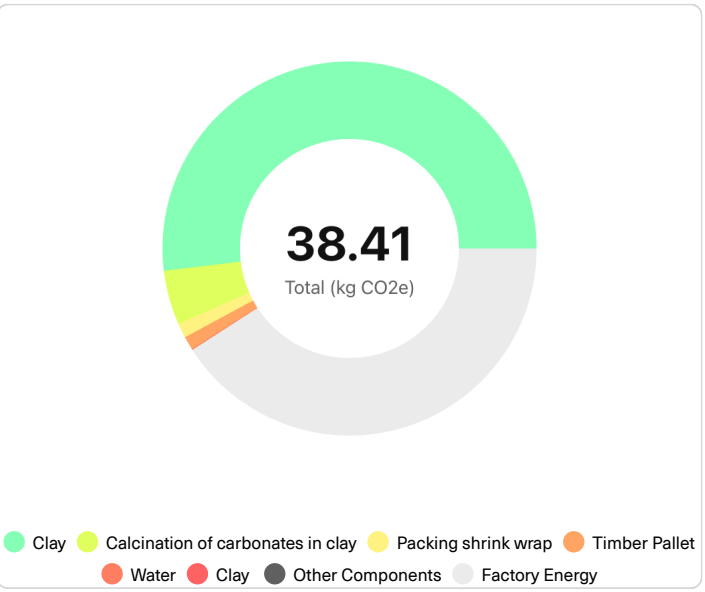
LITTLEHAMPTON CLAY BRICKS AND PAVERS PTY LTD

Total upfront carbon (Fossil)
(A1-A3)

38.41 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
Clay	950.00	19.93	51.90
Timber Pallet	1.30	0.45	1.17
Water	50.00	0.03	0.08
Calcination of carbonates in clay	0.00	1.81	4.70
Packing shrink wrap	0.12	0.49	1.27
Factory Energy	0.00	15.70	40.88
	Total (kg)	Total (kg CO2e)	
	1,001.42	38.41	

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	7.81	12.14	18.45
Biogenic	-0.01	0.00	-2.04
Luluc	< 0.01	0.00	< 0.01
	Total (kgCO2e)	Total (kgCO2e)	Total (kgCO2e)
	7.81	12.14	16.41

Report information

Publication date	October 14, 2025
Valid until	October 14, 2030
Independently verified	Declaration owner generated report Reviewed and verified by Rebuilt
Verifier contact	www.rebuilt.eco iso@rebuilt.eco
Geographic scope	This claim covers production in Australia
Data collection period	1 July 2024 - 30 June 2025
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 GREENHOUSE GAS PROTOCOL International Standard on Sustainability Assurance™ ISSA 5000

Company information

Declaration owner	LITTLEHAMPTON CLAY BRICKS AND PAVERS PTY LTD
Company description	-
Company location	Littlehampton, Australia
Manufacturing facility	Littlehampton Clay Bricks & Pavers
Manufacturing location	Littlehampton, Australia

Product information

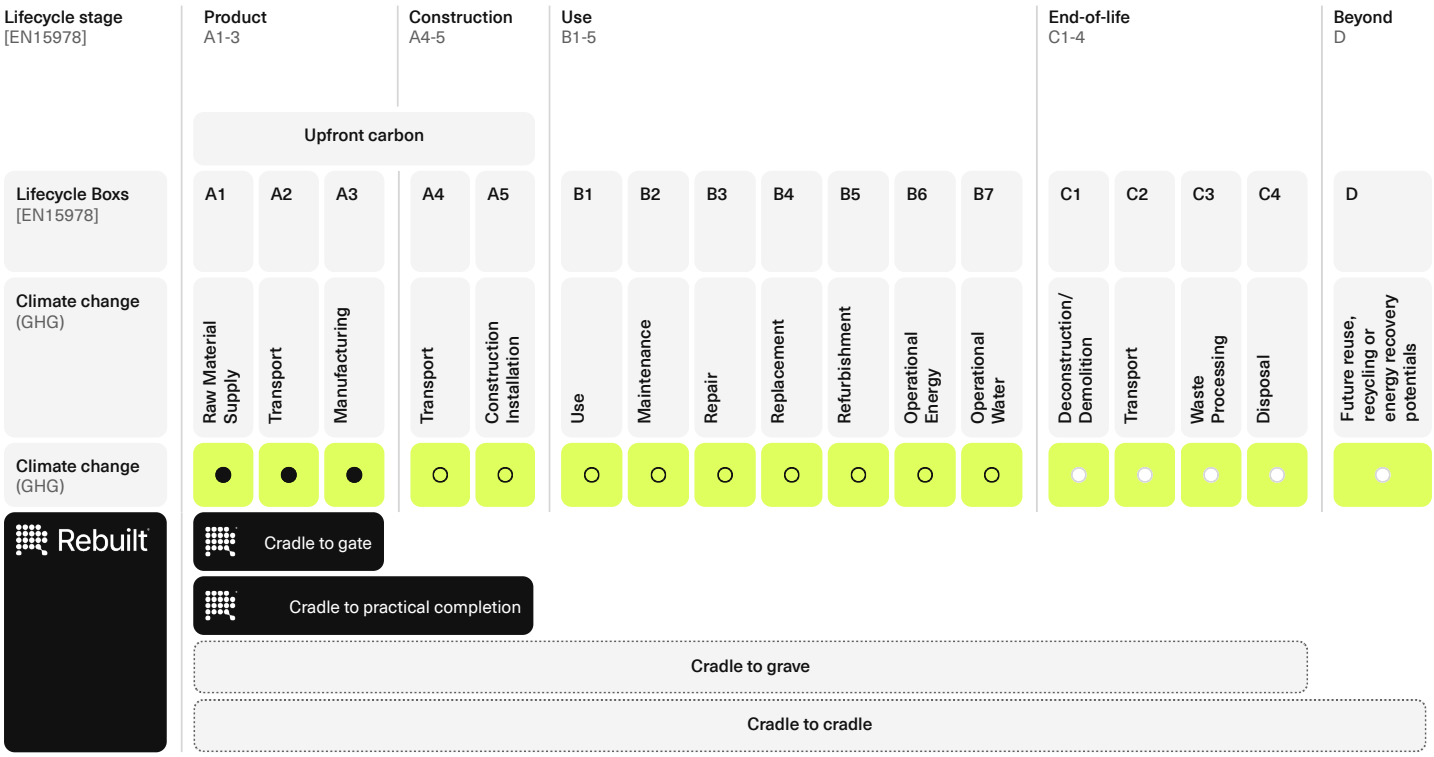
Product name	Littlehampton Bricks and Pavers
SKU	-
Description	This PCF represents the average tonne of Littlehampton clay brick and paver production for the nominated reporting year. Littlehampton Brick & Paver (all colours and sizes), wire cut, batch fired, natural clay bricks. Purpose-made masonry units manufactured to meet the requirements of AS/NZS 4455 and AS/NZS 4456, with classification under AS 3700 – Masonry Structures. Designed for use in severe environmental conditions, these bricks offer maximum durability and performance where structures are exposed to aggressive weathering, salt attack, or marine environments.
Net weight (kg) per declared unit	1,000.00
Declared unit	1 tonne For the purposes of this report, declared unit is taken to be an individual unit as sold.
ANZSIC	30
UNICLASS code	Pr_20_93_52_27

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

Transport of the product to the final customer, including retail and warehousing. This PCF assumes products ship directly from the manufacturing plant to the final customer and are not sent to retail or warehousing. Scenario used is distance estimated at 200km by truck

A5 - Construction & Installation

Energy to install, ancillary materials required and waste created during the construction & installation of the product on site.

B - Use Phase

Not reported as part of this scope

C - End of Life

Not reported as part of this scope

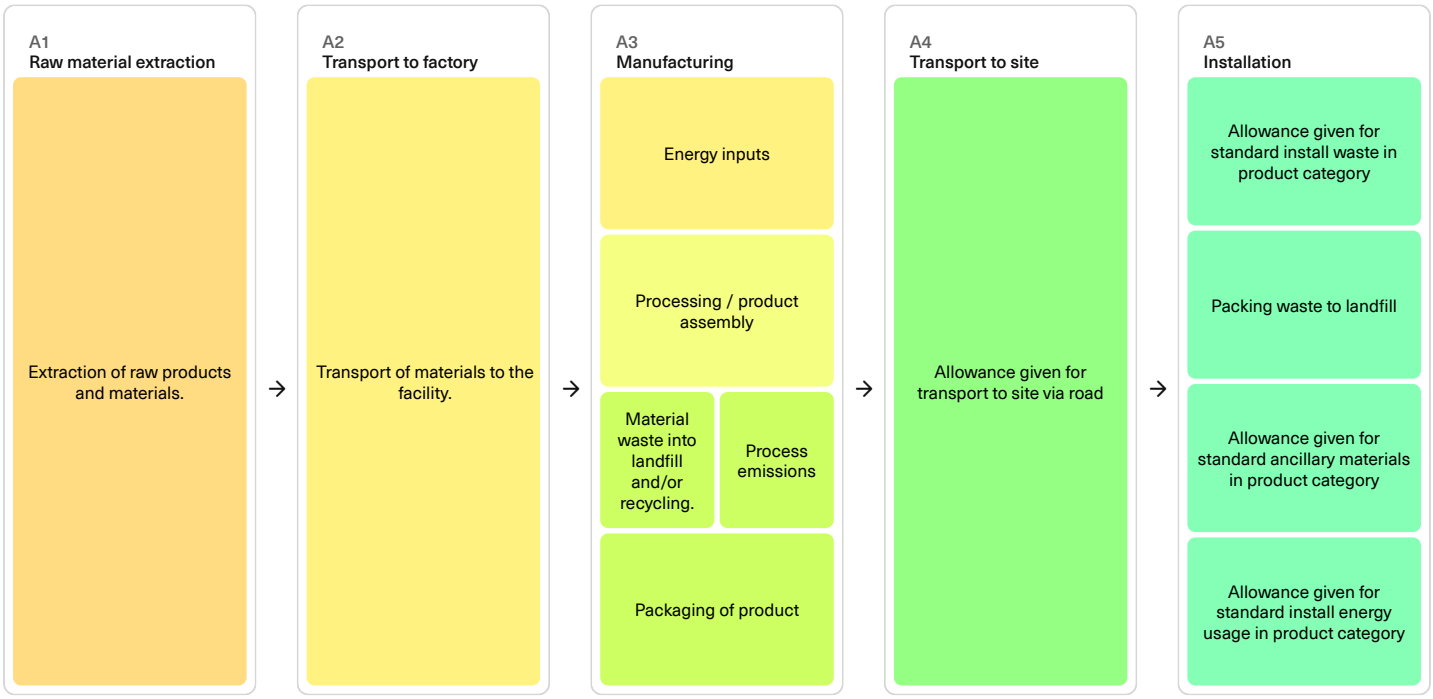
D - Beyond

Not reported as part of this scope

All effort is made to align measurement procedures for PRODUCT PCR to support comparability within the normal limits of accuracy. Users should take note of the scope, limits and product rules where they attempt to compare the A1-A5 result declared here and other product declarations.

Technical information (continued)

Process flow diagram



Exclusions from A1
None

Exclusions from A2
None

Exclusions from A3
None

Exclusions from A4
Exact transport distances and methods of transport to vary by customer

Exclusions from A5
Exact installation figures to vary by customer

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)

38.41 Carbon Footprint
kg CO2e /tonne

Carbon intensity by life cycle stage

Type	A1 (kgCO2e)	A2 (kgCO2e)	A3 (kgCO2e)
Fossil	7.81	12.14	18.45
Biogenic	-0.01	0.00	-2.04
Luluc	< 0.01	0.00	< 0.01
	Total (kgCO2e)	Total (kgCO2e)	Total (kgCO2e)
	7.81	12.14	16.41

Carbon intensity by raw material

Material	GWP Fossil (kgCO2e)	GWP Biogenic (kgCO2e)	GWP Luluc (kgCO2e)	GWP Total (kgCO2e)
Clay	7.79	-0.01	< 0.01	7.79
Water	0.02	< 0.01	< 0.01	0.02
	Total (kgCO2e)	Total (kgCO2e)	Total (kgCO2e)	Total (kgCO2e)
	7.81	-0.01	< 0.01	7.81

Carbon intensity by transport type

Material	Transport mode	GWP Fossil (kgCO2e)	GWP Biogenic (kgCO2e)	GWP Luluc (kgCO2e)	GWP Total (kgCO2e)
Clay	Transport, truck, 16 to 28t, fleet average	12.14	0.00	0.00	12.14
Timber Pallet	Transport, truck, 16 to 28t, fleet average	< 0.01	0.00	0.00	< 0.01
Water	N/A	0.00	0.00	0.00	0.00
Packing shrink wrap	Transport, truck, 16 to 28t, fleet average	< 0.01	0.00	0.00	< 0.01
		Total (kgCO2e)	Total (kgCO2e)	Total (kgCO2e)	Total (kgCO2e)
		12.15	0.00	0.00	12.15

Carbon intensity by energy source

Energy type	GWP Fossil (kgCO2e)	GWP Biogenic (kgCO2e)	GWP Luluc (kgCO2e)	GWP Total (kgCO2e)
Liquefied petroleum gas (LPG)	0.70	0.00	0.00	0.70
Liquefied petroleum gas (LPG)	0.12	0.00	0.00	0.12

Results (Continue)

Liquefied petroleum gas (LPG)	0.43	0.00	0.00	0.43
Liquefied petroleum gas (LPG)	0.55	0.00	0.00	0.55
Liquefied petroleum gas (LPG)	0.27	0.00	0.00	0.27
Purchased from grid (low voltage)	0.62	0.00	0.00	0.62
Purchased from grid (low voltage)	0.74	0.00	0.00	0.74
Purchased from grid (low voltage)	0.82	0.00	0.00	0.82
Purchased from grid (low voltage)	1.00	0.00	0.00	1.00
Purchased from grid (low voltage)	1.09	0.00	0.00	1.09
Purchased from grid (low voltage)	1.09	0.00	0.00	1.09
Purchased from grid (low voltage)	1.00	0.00	0.00	1.00
Renewable diesel	0.07	0.00	0.00	0.07
Renewable diesel	0.11	0.00	0.00	0.11
Renewable diesel	0.11	0.00	0.00	0.11
Renewable diesel	0.07	0.00	0.00	0.07
Renewable diesel	0.09	0.00	0.00	0.09
Renewable diesel	0.09	0.00	0.00	0.09
Renewable diesel	0.09	0.00	0.00	0.09
Renewable diesel	0.11	0.00	0.00	0.11
Renewable diesel	0.06	0.00	0.00	0.06
Renewable diesel	0.08	0.00	0.00	0.08
Renewable diesel	0.08	0.00	0.00	0.08
Renewable diesel	0.07	0.00	0.00	0.07
Liquefied petroleum gas (LPG)	0.19	0.00	0.00	0.19
Liquefied petroleum gas (LPG)	0.33	0.00	0.00	0.33
Liquefied petroleum gas (LPG)	0.41	0.00	0.00	0.41
Liquefied petroleum gas (LPG)	0.23	0.00	0.00	0.23
Purchased from grid (low voltage)	1.00	0.00	0.00	1.00
Purchased from grid (low voltage)	0.86	0.00	0.00	0.86
Purchased from grid (low voltage)	1.01	0.00	0.00	1.01
Purchased from grid (low voltage)	0.82	0.00	0.00	0.82
Liquefied petroleum gas (LPG)	0.09	0.00	0.00	0.09
Purchased from grid (low voltage)	0.62	0.00	0.00	0.62
Liquefied petroleum gas (LPG)	0.35	0.00	0.00	0.35
Liquefied petroleum gas (LPG)	0.35	0.00	0.00	0.35
	Total (kgCO2e)	Total (kgCO2e)	Total (kgCO2e)	Total (kgCO2e)
	15.70	0.00	0.00	15.70

Carbon intensity by packaging material

Results (Continue)

Material	GWP Fossil (kgCO2e)	GWP Biogenic (kgCO2e)	GWP Luluc (kgCO2e)	GWP Total (kgCO2e)
Timber Pallet	0.45	-2.06	< 0.01	-1.61
Packing shrink wrap	0.49	0.01	< 0.01	0.50
	Total (kgCO2e)	Total (kgCO2e)	Total (kgCO2e)	Total (kgCO2e)
	0.94	-2.05	< 0.01	-1.11

Carbon intensity by process emissions

Material	GWP Fossil (kgCO2e)	GWP Biogenic (kgCO2e)	GWP Luluc (kgCO2e)	GWP Total (kgCO2e)
Calcination of carbonates in clay	1.81	0.00	0.00	1.81
	Total (kgCO2e)	Total (kgCO2e)	Total (kgCO2e)	Total (kgCO2e)
	1.81	0.00	0.00	1.81

Carbon intensity by waste treatment

Material	Waste treatment type	GWP Fossil (kgCO2e)	GWP Biogenic (kgCO2e)	GWP Luluc (kgCO2e)	GWP Total (kgCO2e)
Clay	N/A	0.00	0.00	0.00	0.00
Water	wastewater treatment, South Australia	0.01	< 0.01	0.00	0.02
		Total (kgCO2e)	Total (kgCO2e)	Total (kgCO2e)	Total (kgCO2e)
		0.01	< 0.01	0.00	0.02

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