

SOFTPILE 20MPa

Generic EPD - Perth Region

WESTERN AUSTRALIA - PERTH

Environmental Product Declaration

In Accordance with Environdec c-PCR-003 Concrete, concrete elements (EN 16757:2023), ISO 14025 and EN15804:A2

Programme Operator: EPD International AB

Regional Programme: EPD Australasia

An EPD should provide current information and may be updated or depublished if conditions change. To find the latest version of the EPD and to confirm its validity, see www.environdec.com.

EPD Registration Number: EPD-IES-0018963:001

Date of Publication: 2025-05-02

Valid Until: 2030-05-02

Date of Version: 1.0 2025-05-02



Heidelberg Materials





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Heidelberg Materials



Heidelberg Materials Australia



Who is Heidelberg Materials?

Heidelberg Materials is one of the world's largest building materials companies focused on producing materials to build our future.



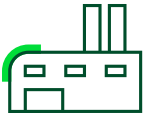
50 countries



51,000 employees



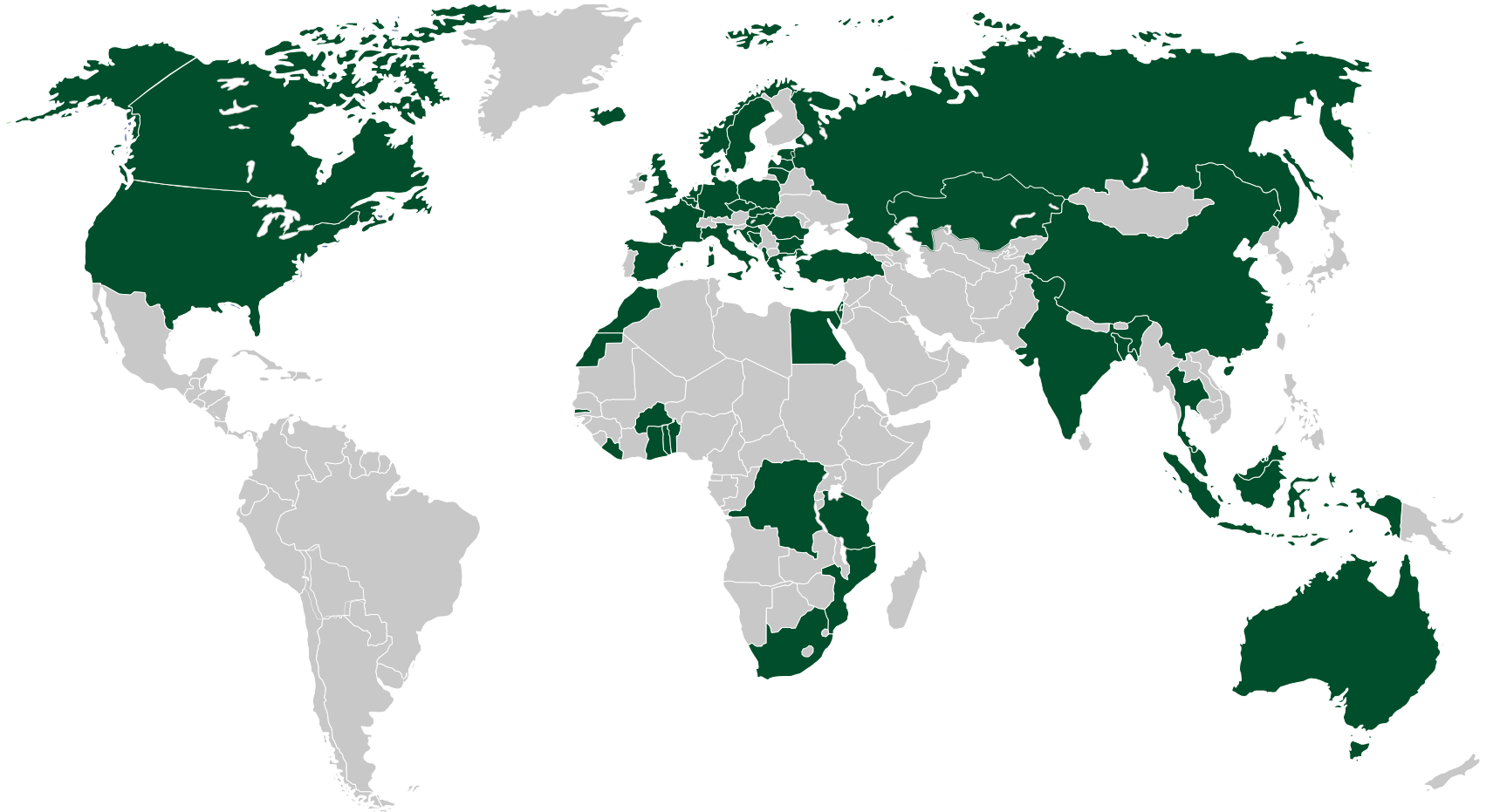
3,000 locations



Leading market positions in cement, aggregates and ready-mixed concrete.



Revenue in 2023 – 21.2 Billion Euro



Global expertise, Local experience

With more than 4,000 employees across 300 sites, we have an extensive production and logistics network across Australia.

We think global and act local - we benefit from global research and development enhanced by national collaboration to offer a comprehensive range of high-quality concrete, aggregates, road base, sand and asphalt products. We also produce a wide range of sustainable and recycled construction materials for civil construction and infrastructure projects.

We are driven by excellence and high performance and together we will shape Australia's construction materials industry building a legacy for generations to come.



Our sustainability charter



The Heidelberg Materials Australia group of companies are leaders in the heavy construction materials industry. However, we never take it for granted. We help to build the infrastructure of communities by working with them and being a part of them. While we are known for our “we’ll make it happen” attitude, we are conscious of our socio-economic and environmental impacts.

One of our strategic goals is to drive operational excellence and innovation, which means we are always looking for new ways of working to help preserve and protect our planet’s natural resources.

Heidelberg Materials sustainability commitments 2030 serve as a guiding principle for our sustainability strategy.

The strategy is comprised of four strategic pillars and supports initiatives that focus on CO₂ Emissions, Sustainable Products, Biodiversity, Water and Corporate Social Responsibility.

To realise these sustainability goals, individual plans will be developed for our operations, addressing their unique sustainability challenges. We will also build sustainability targets into everyone’s roles, recruit sustainability champions and invest in resources and projects that support our sustainability plans. Our plans and commitments align directly with each of our core values: Care, Collaboration and Ownership.

Committing to these goals as a team is an important part of being a truly sustainable business.

I look forward to working together to realise better outcomes for our people, our communities and our planet.

Phil Schacht
Chief Executive
Heidelberg Materials Australia

“Driven by excellence and high performance, together we will shape Australia’s construction materials industry, building a legacy for generations to come”



Life Cycle and Process



Product EPD Process

Declared Unit is 1m³ of Concrete

- The process is used to produce an accurate estimation at all stages of the product life cycle from cradle to grave. Estimation at each stage is based on actual data which is a combination of both current and prior year average consumption per declared unit.

Life Cycle Assessment Tool

- For the purposes of creating this Environmental Product Declaration (EPD), the Global Cement & Concrete Association (GCCA) concrete EPD tool v. 5.0 (short: GCCA tool) has been employed.

EPDs are created under either of 2 streams:

- Generic Stream - The class of product modelled is used for a particular geographical region using averaged data across operations.
- Project-specific stream – Models the manufacture of specific products required for a particular project being delivered from specific plant(s) using weighted average data where relevant and possible. Reports created after the completion of a project offer the highest accuracy, including all mix variations for each delivery.

The main data categories include:

- The average bill of materials (BOM) for the concrete mix selected in the range of concrete plants specified including their average raw material travel distance, or the calculated BOM based on actual delivered materials incl. travel distances (average or specific) for the producing plants.
- The average fuel, water and energy consumption per declared unit between those plants;
- Plant production waste based on a nationally calculated figure;
- Recarbonation of concrete is determined through pre-defined values within GCCA tool for the type of construction project (- kg CO₂ eq./ m³ at Stage B, -1.86447801 kg CO₂ eq./ m³ at Stage C3, and - kg CO₂ eq./ m³ at Stage C4, where known; and, 3.898979692 kg CO₂ eq./ m³ at Stage C5, where known; and, 5.709571876 kg CO₂ eq./ m³ at Stage C6, where known; and, 7.520174060 kg CO₂ eq./ m³ at Stage C7, where known; and, 9.330776244 kg CO₂ eq./ m³ at Stage C8, where known; and, 11.141378428 kg CO₂ eq./ m³ at Stage C9, where known; and, 12.951980612 kg CO₂ eq./ m³ at Stage C10, where known; and, 14.762582796 kg CO₂ eq./ m³ at Stage C11, where known; and, 16.573184980 kg CO₂ eq./ m³ at Stage C12, where known; and, 18.383787164 kg CO₂ eq./ m³ at Stage C13, where known; and, 20.194389348 kg CO₂ eq./ m³ at Stage C14, where known; and, 22.004991532 kg CO₂ eq./ m³ at Stage C15, where known; and, 23.815593716 kg CO₂ eq./ m³ at Stage C16, where known; and, 25.626195900 kg CO₂ eq./ m³ at Stage C17, where known; and, 27.436798084 kg CO₂ eq./ m³ at Stage C18, where known; and, 29.247399968 kg CO₂ eq./ m³ at Stage C19, where known; and, 31.057999952 kg CO₂ eq./ m³ at Stage C20, where known; and, 32.868599936 kg CO₂ eq./ m³ at Stage C21, where known; and, 34.679199920 kg CO₂ eq./ m³ at Stage C22, where known; and, 36.489799904 kg CO₂ eq./ m³ at Stage C23, where known; and, 38.300399888 kg CO₂ eq./ m³ at Stage C24, where known; and, 40.110999872 kg CO₂ eq./ m³ at Stage C25, where known; and, 41.921599856 kg CO₂ eq./ m³ at Stage C26, where known; and, 43.732199840 kg CO₂ eq./ m³ at Stage C27, where known; and, 45.542799824 kg CO₂ eq./ m³ at Stage C28, where known; and, 47.353399808 kg CO₂ eq./ m³ at Stage C29, where known; and, 49.163999792 kg CO₂ eq./ m³ at Stage C30, where known; and, 50.974599776 kg CO₂ eq./ m³ at Stage C31, where known; and, 52.785199760 kg CO₂ eq./ m³ at Stage C32, where known; and, 54.595799744 kg CO₂ eq./ m³ at Stage C33, where known; and, 56.406399728 kg CO₂ eq./ m³ at Stage C34, where known; and, 58.216999712 kg CO₂ eq./ m³ at Stage C35, where known; and, 60.027599696 kg CO₂ eq./ m³ at Stage C36, where known; and, 61.838199680 kg CO₂ eq./ m³ at Stage C37, where known; and, 63.648799664 kg CO₂ eq./ m³ at Stage C38, where known; and, 65.459399648 kg CO₂ eq./ m³ at Stage C39, where known; and, 67.269999632 kg CO₂ eq./ m³ at Stage C40, where known; and, 69.080599616 kg CO₂ eq./ m³ at Stage C41, where known; and, 70.891199600 kg CO₂ eq./ m³ at Stage C42, where known; and, 72.701799584 kg CO₂ eq./ m³ at Stage C43, where known; and, 74.512399568 kg CO₂ eq./ m³ at Stage C44, where known; and, 76.322999552 kg CO₂ eq./ m³ at Stage C45, where known; and, 78.133599536 kg CO₂ eq./ m³ at Stage C46, where known; and, 79.944199520 kg CO₂ eq./ m³ at Stage C47, where known; and, 81.754799504 kg CO₂ eq./ m³ at Stage C48, where known; and, 83.565399488 kg CO₂ eq./ m³ at Stage C49, where known; and, 85.375999472 kg CO₂ eq./ m³ at Stage C50, where known; and, 87.186599456 kg CO₂ eq./ m³ at Stage C51, where known; and, 88.997199440 kg CO₂ eq./ m³ at Stage C52, where known; and, 90.807799424 kg CO₂ eq./ m³ at Stage C53, where known; and, 92.618399408 kg CO₂ eq./ m³ at Stage C54, where known; and, 94.428999392 kg CO₂ eq./ m³ at Stage C55, where known; and, 96.239599376 kg CO₂ eq./ m³ at Stage C56, where known; and, 98.050199360 kg CO₂ eq./ m³ at Stage C57, where known; and, 99.860799344 kg CO₂ eq./ m³ at Stage C58, where known; and, 101.671399328 kg CO₂ eq./ m³ at Stage C59, where known; and, 103.481999312 kg CO₂ eq./ m³ at Stage C60, where known; and, 105.292599296 kg CO₂ eq./ m³ at Stage C61, where known; and, 107.103199280 kg CO₂ eq./ m³ at Stage C62, where known; and, 108.913799264 kg CO₂ eq./ m³ at Stage C63, where known; and, 110.724399248 kg CO₂ eq./ m³ at Stage C64, where known; and, 112.534999232 kg CO₂ eq./ m³ at Stage C65, where known; and, 114.345599216 kg CO₂ eq./ m³ at Stage C66, where known; and, 116.156199200 kg CO₂ eq./ m³ at Stage C67, where known; and, 117.966799184 kg CO₂ eq./ m³ at Stage C68, where known; 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and, 335.238797264 kg CO₂ eq./ m³ at Stage C188, where known; and, 337.049397248 kg CO₂ eq./ m³ at Stage C189, where known; and, 338.859997232 kg CO₂ eq./ m³ at Stage C190, where known; and, 340.670597216 kg CO₂ eq./ m³ at Stage C191, where known; and, 342.481197200 kg CO₂ eq./ m³ at Stage C192, where known; and, 344.291797184 kg CO₂ eq./ m³ at Stage C193, where known; and, 346.102397168 kg CO₂ eq./ m³ at Stage C194, where known; and, 347.912997152 kg CO₂ eq./ m³ at Stage C195, where known; and, 349.723597136 kg CO₂ eq./ m³ at Stage C196, where known; and, 351.534197120 kg CO₂ eq./ m³ at Stage C197, where known; and, 353.344797104 kg CO₂ eq./ m³ at Stage C198, where known; and, 355.155397088 kg CO₂ eq./ m³ at Stage C199, where known; and, 356.965997072 kg CO₂ eq./ m³ at Stage C200, where known; and, 358.776597056 kg CO₂ eq./ m³ at Stage C201, where known; and, 360.587197040 kg CO₂ eq./ m³ at Stage C202, where known; and, 362.397797024 kg CO₂ eq./ m³ at Stage C203, where known; and, 364.208397008 kg CO₂ eq./ m³ at Stage C204, where known; 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and, 396.799196720 kg CO₂ eq./ m³ at Stage C222, where known; and, 398.609796704 kg CO₂ eq./ m³ at Stage C223, where known; and, 400.420396688 kg CO₂ eq./ m³ at Stage C224, where known; and, 402.230996672 kg CO₂ eq./ m³ at Stage C225, where known; and, 404.041596656 kg CO₂ eq./ m³ at Stage C226, where known; and, 405.852196640 kg CO₂ eq./ m³ at Stage C227, where known; and, 407.662796624 kg CO₂ eq./ m³ at Stage C228, where known; and, 409.473396608 kg CO₂ eq./ m³ at Stage C229, where known; and, 411.283996592 kg CO₂ eq./ m³ at Stage C230, where known; and, 413.094596576 kg CO₂ eq./ m³ at Stage C231, where known; and, 414.905196560 kg CO₂ eq./ m³ at Stage C232, where known; and, 416.715796544 kg CO₂ eq./ m³ at Stage C233, where known; and, 418.526396528 kg CO₂ eq./ m³ at Stage C234, where known; and, 420.336996512 kg CO₂ eq./ m³ at Stage C235, where known; and, 422.147596496 kg CO₂ eq./ m³ at Stage C236, where known; and, 423.958196480 kg CO₂ eq./ m³ at Stage C237, where known; and, 425.768796464 kg CO₂ eq./ m³ at Stage C238, where known; and, 427.579396448 kg CO₂ eq./ m³ at Stage C239, where known; and, 429.389996432 kg CO₂ eq./ m³ at Stage C240, where known; and, 431.200596416 kg CO₂ eq./ m³ at Stage C241, where known; and, 433.011196400 kg CO₂ eq./ m³ at Stage C242, where known; and, 434.821796384 kg CO₂ eq./ m³ at Stage C243, where known; and, 436.632396368 kg CO₂ eq./ m³ at Stage C244, where known; and, 438.442996352 kg CO₂ eq./ m³ at Stage C245, where known; and, 440.253596336 kg CO₂ eq./ m³ at Stage C246, where known; and, 442.064196320 kg CO₂ eq./ m³ at Stage C247, where known; and, 443.874796304 kg CO₂ eq./ m³ at Stage C248, where known; and, 445.685396288 kg CO₂ eq./ m³ at Stage C249, where known; and, 447.495996272 kg CO₂ eq./ m³ at Stage C250, where known; and, 449.306596256 kg CO₂ eq./ m³ at Stage C251, where known; and, 451.117196240 kg CO₂ eq./ m³ at Stage C252, where known; and, 452.927796224 kg CO₂ eq./ m³ at Stage C253, where known; and, 454.738396208 kg CO₂ eq./ m³ at Stage C254, where known; and, 456.548996192 kg CO₂ eq./ m³ at Stage C255, where known; and, 458.359596176 kg CO₂ eq./ m³ at Stage C256, where known; and, 460.170196160 kg CO₂ eq./ m³ at Stage C257, where known; and, 461.980796144 kg CO₂ eq./ m³ at Stage C258, where known; and, 463.791396128 kg CO₂ eq./ m³ at Stage C259, where known; and, 465.601996112 kg CO₂ eq./ m³ at Stage C260, where known; and, 467.412596096 kg CO₂ eq./ m³ at Stage C261, where known; and, 469.223196080 kg CO₂ eq./ m³ at Stage C262, where known; and, 471.033796064 kg CO₂ eq./ m³ at Stage C263, where known; and, 472.844396048 kg CO₂ eq./ m³ at Stage C264, where known; and, 474.654996032 kg CO₂ eq./

Product EPD Process

Bill of Materials	Low Level [%]	High Level [%]
Cement	2	17
Supplementary Cementitious Materials	<1	14
Aggregates	63	92
Water	2	13
Admixtures	0	<1
Reinforcements	0	<1

The materials (by mass%) contained in Generic EPD - Perth Region mixes are summarized in the table above.

Hazard information related to concrete placement

GHS classifications

- Skin Corrosion Category 1
- Serious Eye Damage –Category 1
- Skin Sensitisation Category 1
- Specific Target Organ Toxicity (Repeated Exposure) Category 2

Hazard Statement(s)

- H302 –Harmful if swallowed
- P280 –Wear protective gloves/clothing/eye protection.
- H314 –Causes severe skin burns and eye damage
- H317 –May cause an allergic skin reaction
- H318 – Causes serious eye damage
- H373 –May cause damage to lungs by inhalation (dust from dried product)

By-Products, Recycled Materials & Allocations

Co-products would be allocated via economic allocations and then normalized based on BOM. The following materials are the product of waste streams of other industrial processes:

Fly ash

- A by-product of coal-fired power stations, fly ash is considered to carry no environmental impact for the purposes of this EPD, hence an economic allocation of \$0 has been applied to fly ash. The only burdens are of transport to manufacturing sites.

Ground Granulated Blast Furnace Slag (GGBFS)

- Blast furnace slag is a by-product of steel production that is dried and ground for use in concrete production. To duly allocate the environmental impacts, economic allocation has been employed.

Silica fume

- As a by-product of silicon production, silica fume is considered to carry no environmental burden for the purposes of this EPD.

Recycled concrete aggregate

- A component of the boarder category of construction and demolition waste, environmental impacts are allocated on the basis of reprocessing the material following delivery to the recycling facility.

Manufactured Sand

- A by-product of processing coarse aggregate. This manufactured sand is a direct replacement for natural sand and prevents the need to extract natural resources.

Packaging

- This concrete is not produced with any packaging, instead delivered directly to site immediately following production.

In Accordance with Environdec c-PCR-003 Concrete, concrete elements (EN 16757), ISO 14025 and EN15804:A2



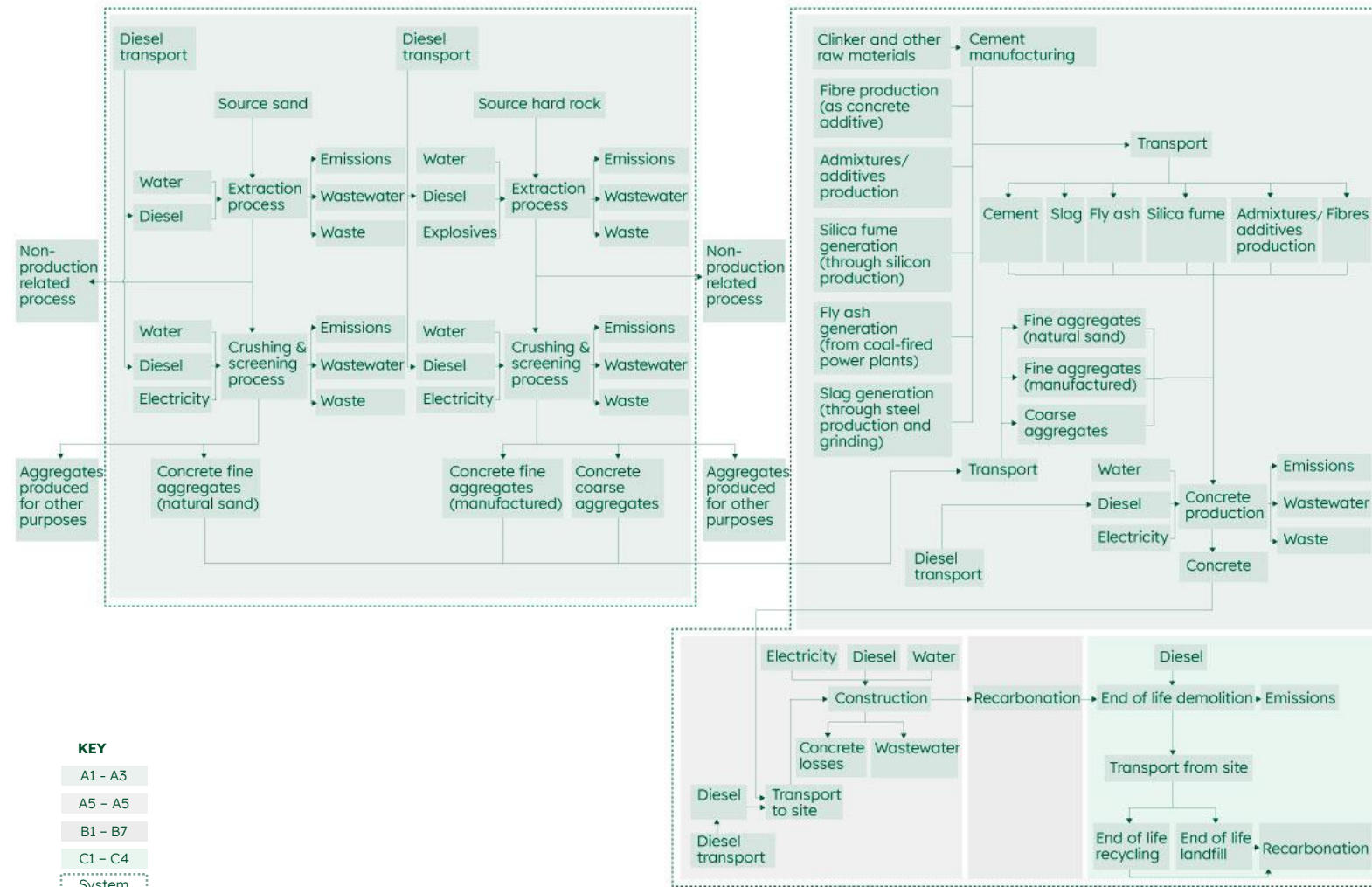
Product Lifecycle Stages

	Product Stage			Construction Stage		Use Stage							End of Life Stage				Benefits & loads for the next product system
	Raw Material Supply	Transport	Manufacturing	Transport	Construction/installation process	Use	Maintenance incl. transport	Repair incl. transport	Replacement incl. transport	Refurbishment incl. transport	Operational Energy Use	Operational Water Use	De-construction & demolition	Transport	Re-use recycling	Final Disposal	Reuse, Recovery Recycling
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geography	GLO	GLO	AU	AU	AU	AU	AU	AU	AU	AU	AU	AU	AU	AU	AU	AU	AU
Specific data	>90%																
Variation products	<10%																
Variation sites	<10%																

- All stages of the product lifecycle have been considered for this EPD – cradle to grave. By its nature, there are some stages of the lifecycle that are not applicable to the concrete product.
- The scenario applied for the use stage assumes that under normal use, no maintenance repair or replacement of the product during its service life is required. As a result, the values are displayed as zero.
- Those stages that, due to practicality, cannot be assessed accurately draw on default values of the underlying GCCA tool.
- For Project-specific EPDs, allocation is determined by the supplying plants with estimates as to the likely volume to be delivered from each. Where existing and sufficient data exists, historical data will be used to make this determination.



Product Lifecycle Stages



- The lifecycle model and system boundary is the same for both Generic and Project-specific concrete EPDs, as detailed in the graphic.
- All stages of the lifecycle, from quarry to recycling are covered by the EPD.

Cut-off rules

The cut-off threshold for the LCA study was flows contributing less than 1% for any individual input included in the LCA. No flows were deliberately excluded due to this threshold, however particularly minor impacts (e. g. packaging of chemical admixtures) were not considered. Cut off will occur only when data, or reliable estimates, are not practical to source. The contribution of capital goods (production equipment and infrastructure) and personnel are non-attributable and excluded for the system boundary.



Product Data Sources

LCA Stage	Item	Source	Timing	Data Source	Data Quality		
					Geographical	Technical	Time
Product Description	Product description and density	ERP report Bill of Materials and material specific data	Upon EPD creation	Primary	Very good	Very good	Very good
A1-3 Materials	Raw Materials	ERP report BOM and Mix design compilation used in conjunction with material template Note. Upstream process for raw materials utilise data from ecoinvent 3.10. Specific cement EPD data by the cement manufacturer was used if available. Published cement EPDs were used to create concrete EPDs. In the rare case that specific cement data was not possible, region-specific default cement and clinker values (default values provided by the GCCA tool) would have been used. This would be reflected in "Specific data."	Upon EPD creation	Secondary	Very good	Good	Very good
A1-3 Materials	Inbound travel (raw materials)	ERP report 2. Inbound Travel drawing from actual deliveries from sources to operations. Where delivery data not available, travel calculated based on Google Maps. Train travel (only for operations around Melbourne) calculated by actual Google Maps distance.	Full prior year data, average per delivery Actual travel distances between source and operation.	Primary	Very good	Good	Very good
A1-3 Materials	Allocation Factor (for secondary co products):	Slag: AusLCI Fly Ash & Silica fume: no allocation as they are industrial by-products.	Upon EPD creation	Secondary	Very good	Good	Very good
1-3 Manufacturing	Plant Energy and Fuel Consumption	ERP Report 3. Concrete Energy Use, drawing on actual invoiced usage.	Full prior year data, average per cubic metre	Primary	Very good	Very good	Very good
A1-3 Manufacturing	Electricity Energy Sources	Sourced from OpenNEM https://opennem.org.au ; Australian Energy Market Operator. Excludes imports.	Full year prior data, state-based, percentages	Secondary	Very good	Very good	Very good
A1-3 Waste Management	Waste and wastewater	Wastewater volume set to 9L per 1 m ³	Static	Secondary	Very good	Good	Very good
A4-5 Construction	Outbound Travel	For generic EPDs: ERP report 5. Outbound travel drawing from actual deliveries from operations to customer sites. Where data not available, travel calculated based on Google Maps. For project-specific EPDs: The project-specific travel distances from the main plant to the construction site was applied. For both scenarios, diesel truck is used to transport deliveries to customer site/s. A5 uses default GCCA Tool settings for: 2.8 kWh electricity, 1.7 L diesel in building machine, 669 kg water, and 0.7 m³ wastewater. Note that internal concrete losses are at ~1% (based on internal reports)	Generic EPD: Full prior year data, average per delivery. Project-specific EPD: Actual travel distances between plant and construction site.	Primary	Very good	Good	Very good
B. Use	Re-carbonation	Default GCCA Tool settings	NA	Proxy	Good	Good	Very good



Product Data Sources

LCA Stage	Item	Source	Timing	Data Source	Data Quality		
					Geographical	Technical	Time
C. End of Life Demolition	Demolition	Default GCCA Tool settings (2.674 L diesel in building machine, 0.0365 mg PM2.5, 0.184 mg PM10, 0.139 mg PM>10). PM refers to particulate matter.	NA	Proxy	Good	Good	Very good
C. End of Life Transport	Transport	Default GCCA Tool settings	NA	Proxy	Good	Good	Very good
C. End of Life Waste Processing	Recycling Rate at EOL	Masonry materials recycling rate obtained from annual National Waste Report published (e. g. for National Waste Report 2022, page 41, figure 29). Referenced recycling rate is used in industry as closest to concrete-specific value. National Waste Reports	Prior year National Waste Report if available. If not, then latest available	Proxy	Good	Good	Very good
C. End of Life Disposal	Disposal Rate at EOL	Disposal rate inverse of masonry materials recycling rate obtained from annual National Waste Report published National Waste Reports	Prior year National Waste Report if available. If not, then latest available	Proxy	Good	Good	Very good
D Benefits and Loads		Default GCCA Tool settings	NA	NA	NA	NA	NA
General	General	Ecoinvent database used by the GCCA tool Note: This covers environmental information for all raw materials and energy sources. Cement, where data is available, employs specific raw material and energy data for the product manufacture and for each component draws on Eco Invent Data.	NA	Secondary	Very good	Good	Very good



Product environmental performance

Heidelberg Materials



Product Environmental Performance

Comment	All information about goal and scope necessary for results interpretation are present in the latest version of the “LCA Model” report, available in GCCA’s Industry EPD Tool. Declared GWP-GHG results for modules A1-A3 are <10%. The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks. Since Module C is included in the EPD, the use of Module A1-A3 results without considering the results of Module C is discouraged. EF3.0 based EN15804+A2 impact assessment methodology has been is used for the GWP indicators. The removals and emissions associated with biogenic carbon content of i) the product and ii) the packaging are not significant or even not relevant in the sector. The only limitation is the uptake of CO₂ in A1-A3 (e.g. biobased insulation materials in precast elements or biobased packaging materials) and reemission in A5 (packaging end-of-life) or C3-C4 (product end-of-life). This does not affect the GWP-tot indicator. The tool does not calculate the ‘Radioactive waste disposed’ indicator, it is considered not to be significant for the sector.
Core Environmental Impact Indicators	GWP-GHG (Global Warming Potential, GHG) • GWP-tot (Global Warming Potential total) • GWP-fos (Global Warming Potential fossil fuels) • GWP-bio (Global Warming Potential biogenic) • GWP-luc (Global Warming Potential land use and land use change) • ODP (Depletion potential of the stratospheric ozone layer) • AP (Acidification potential, Accumulated Exceedance) • EP-fw (Eutrophication potential, freshwater) • EP-mar (Eutrophication potential, fraction of nutrients reaching marine end compartment) • EP-ter (Eutrophication potential, Accumulated Exceedance) • POCP (Formation potential of tropospheric ozone) • ADPE¹ (Abiotic depletion potential for non- fossil resources) • ADPF¹ (Abiotic depletion for fossil resources potential) • WDP¹ (Water (user) deprivation potential, deprivation-weighted water consumption)

¹ The results of this environmental impact indicator shall be used with care as the uncertainties of the results are high and as there is limited experience with the indicator.



Product Environmental Performance

Additional Environmental Impact Indicators	PM (Potential incidence of disease due to PM emissions) • IRP² (Potential Human exposure efficiency relative to U235) • ETP¹ (Potential Comparative Toxic Unit for ecosystems) • HTPC¹ (Potential Comparative Toxic Unit for humans - cancer) • HTPNC¹ (Potential Comparative Toxic Unit for humans - non-cancer) • SQP¹ (Potential soil quality index)
Parameters Describing Resource Use	PERE (Use of renewable primary energy excluding renewable primary energy resources used as raw materials) • PERM (Use of renewable primary energy resources used as raw materials) • PERT (Total use of renewable primary energy resources) • PENRE (Use of non renewable primary energy excluding non-renewable primary energy resources used as raw materials) • PENRM (Use of non-renewable primary energy resources used as raw materials) • PENRT (Total use of non-renewable primary energy resources) • SM (Use of secondary materials) • RSF (Use of renewable secondary fuels) • NRSF (Use of non-renewable secondary fuels) • NFW (Net use of fresh water)
Waste Categories	HWD (Hazardous waste disposed) • NHWD (Non-hazardous waste disposed) • RWD (Radioactive waste disposed)
Output Flows	CRU (Components for re-use) • MFR (Materials for recycling) • MER (Materials for energy recovery) • EE (Exported energy)
Extra Indicators	CC¹ (Emissions from calcination and removals from carbonation) • CWRS (Emissions from combustion of waste from renewable sources used in production processes) • CWNRS (Emissions from combustion of waste from non-renewable sources used in production processes) • GWP-prod (Removals and emissions associated with biogenic carbon content of the bio-based product) • GWP-pack (Removals and emissions associated with biogenic carbon content of the bio-based packaging)

¹ The results of this environmental impact indicator shall be used with care as the uncertainties of the results are high and as there is limited experience with the indicator.

² This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.



Product Environmental Performance

Product identification	SOFTPILE 20MPa
EPD Registration Number	EPD-IES-0018963:001
Production site(s)	Perth
Compressive strength	20
Density	2177.6 kg/m³
Reference service life	50 Years
Recycling Rate At EoL	81%
Declared unit	1 m³
Scope	A1-A3 + A4-A5 + B1-B7 + C1-C4 + D, cradle-to-grave
Methodology	GCCA's Industry EPD Tool for Cement and Concrete (V5.0), International version
Reference Year	2024



Product Environmental Performance

EPD Registration Number EPD-IES-0018963:001

Core environmental impact indicators

		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG	kg CO ₂ eq.	2.35E+02	4.14E+00	1.15E+01	-5.31E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.64E+00	8.39E+00	2.95E+00	-3.90E+00	-1.13E+01
GWP-tot	kg CO ₂ eq.	2.35E+02	4.14E+00	1.15E+01	-5.31E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.64E+00	8.39E+00	2.95E+00	-3.90E+00	-1.13E+01
GWP-fos	kg CO ₂ eq.	2.33E+02	4.13E+00	1.15E+01	-5.31E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.63E+00	8.38E+00	2.94E+00	-3.90E+00	-1.13E+01
GWP-bio	kg CO ₂ eq.	2.78E+00	1.70E-04	3.76E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E-03	1.80E-03	5.73E-03	0.00E+00	-2.82E-02
GWP-luc	kg CO ₂ eq.	5.81E-02	1.68E-03	2.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.36E-04	4.03E-03	5.90E-03	0.00E+00	-8.94E-03
ODP	kg CFC 11 eq.	2.50E-06	6.45E-08	2.22E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.47E-07	1.21E-07	3.67E-08	0.00E+00	-9.22E-08
AP	mol H+ eq.	7.38E-01	1.72E-02	8.75E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.69E-02	4.37E-02	2.65E-02	0.00E+00	-7.15E-02
EP-fw	kg P eq.	8.89E-03	1.06E-04	5.32E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.17E-05	2.82E-04	6.51E-04	0.00E+00	-1.02E-03
EP-mar	kg N eq.	1.91E-01	6.27E-03	3.16E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.03E-02	1.63E-02	6.14E-03	0.00E+00	-1.70E-02
EP-ter	mol N eq.	2.15E+00	6.83E-02	3.39E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.41E-01	1.78E-01	6.38E-02	0.00E+00	-2.15E-01
POCP	kg NMVOC eq.	5.84E-01	2.50E-02	1.01E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.32E-01	5.96E-02	1.91E-02	0.00E+00	-5.82E-02
ADPE	kg Sb eq.	9.94E-05	1.16E-05	1.87E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.53E-06	2.30E-05	2.52E-05	0.00E+00	-6.00E-05
ADPF	MJ, net calorific value	1.32E+03	6.04E+01	1.30E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E+02	1.18E+02	6.21E+01	0.00E+00	-1.36E+02
WDP	m³ world eq. deprived	3.89E+01	2.90E-01	1.09E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.09E-01	6.90E-01	9.88E-01	0.00E+00	-2.28E+01

Parameters describing resource use

		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ, net calorific value	1.35E+01	7.93E-01	5.20E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.73E-01	2.31E+00	7.89E+00	0.00E+00	-1.12E+01
PERM	MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ, net calorific value	1.35E+01	7.93E-01	5.20E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.73E-01	2.31E+00	7.89E+00	0.00E+00	-1.12E+01
PENRE	MJ, net calorific value	4.16E+02	6.04E+01	1.21E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E+02	1.18E+02	6.21E+01	0.00E+00	-1.36E+02
PENRM	MJ, net calorific value	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ, net calorific value	4.16E+02	6.04E+01	1.21E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.26E+02	1.18E+02	6.21E+01	0.00E+00	-1.36E+02
SM	kg	2.38E+02	0.00E+00	2.38E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ, net calorific value	2.15E+01	0.00E+00	2.15E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ, net calorific value	5.03E+01	0.00E+00	5.03E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NFW	m³	2.11E+00	8.89E-03	3.54E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.19E-03	1.98E-02	2.82E-02	0.00E+00	-5.38E-01



Product Environmental Performance

EPD Registration Number EPD-IES-0018963:001

Additional environmental impact indicators

		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PM	Disease incidence	6.99E-06	4.23E-07	1.72E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-06	9.21E-07	3.08E-07	0.00E+00	-1.16E-06
IRP	kBq U235 eq.	9.23E-01	5.33E-02	1.94E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.65E-02	1.52E-01	5.92E-01	0.00E+00	-9.77E-01
ETP	CTUe	9.66E+02	1.45E+01	1.75E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.79E+01	3.41E+01	1.53E+01	0.00E+00	-7.25E+01
HTPC	CTUh	1.73E-07	2.07E-08	4.11E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.77E-08	5.38E-08	1.19E-08	0.00E+00	-1.34E-07
HTPNC	CTUh	1.17E-06	3.99E-08	6.73E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-08	7.59E-08	4.33E-08	0.00E+00	-9.16E-08
SQP	dimensionless	9.78E+02	6.08E+01	3.12E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.86E+00	1.10E+02	3.38E+01	0.00E+00	-1.44E+02

Other environmental information describing waste categories

		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD	kg	3.30E-02	0.00E+00	6.06E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RWD	kg	1.72E-04	1.30E-05	4.58E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.38E-05	3.75E-05	1.45E-04	0.00E+00	-2.37E-04

Environmental information describing output flows

		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	0.00E+00	0.00E+00	1.57E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.57E+03	0.00E+00	0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Extra indicators

		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
CC	kg CO ₂ eq.	0.00E+00	0.00E+00	-1.11E-01	-5.31E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-1.87E+00	-3.90E+00	0.00E+00
CWRS	kg CO ₂ eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNRS	kg CO ₂ eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWP-prod	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
GWP-pack	kg CO ₂	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



Product Environmental Performance

The EPD values presented are indicative of local material performance at the time of publishing and are subject to change based on material availability and seasonal factors.

Product Identification	EPD Registration Number	Compressive strength [MPa]	A1-A3 GWP-tot ¹ [kg CO ₂ eq./m ³]	Full Lifecycle GWP-tot ¹ [kg CO ₂ eq./m ³]	Application
COLUMNS & WALLS 65 Mpa	EPD-IES-0018934:001	65	350	369	Column & Wall
COLUMNS & WALLS 80 Mpa	EPD-IES-0018935:001	80	438	455	Column & Wall
COREMASTA 20MPa	EPD-IES-0018887:001	20	265	281	Blockfill
COREMASTA 25MPa	EPD-IES-0018888:001	25	287	302	Blockfill
COREMASTA 32MPa	EPD-IES-0018889:001	32	317	331	Blockfill
COREMASTA 40MPa	EPD-IES-0018890:001	40	315	334	Blockfill
Corewall 50MPa (15 Mpa @ 24 hours)	EPD-IES-0018921:001	50	456	471	Corewall
Corewall 65MPa (15 Mpa @ 24 hours)	EPD-IES-0018922:001	65	469	485	Corewall
EASYCRETE 20MPa	EPD-IES-0018895:001	20	238	255	General
EASYCRETE 20MPa GP	EPD-IES-0018891:001	20	288	302	General
EASYCRETE 20MPa GP Sureset Bronze	EPD-IES-0018892:001	20	293	308	General
EASYCRETE 25MPa	EPD-IES-0018896:001	25	302	316	General
EASYCRETE 25MPa GP	EPD-IES-0018893:001	25	318	332	General
EASYCRETE 25MPa GP Sureset Bronze	EPD-IES-0018894:001	25	326	340	General
ENRICH-30 FOOTING 20MPa	EPD-IES-0018899:001	20	203	222	Footing
ENRICH-30 FOOTING 25MPa	EPD-IES-0018902:001	25	225	242	Footing
ENRICH-30 FOOTING 32MPa	EPD-IES-0018905:001	32	258	274	Footing
Enrich-30 Normal-Class 20 MPa	EPD-IES-0018911:001	20	206	225	General
Enrich-30 Normal-Class 25 MPa	EPD-IES-0018913:001	25	227	245	General
Enrich-30 Normal-Class 32 Mpa	EPD-IES-0018915:001	32	259	275	General

¹More detailed information is provided in the mix-specific tables and assumptions covered in Life Cycles & Processes section.



Product Environmental Performance

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Product Identification	EPD Registration Number	Compressive strength [MPa]	A1-A3 GWP-tot ¹ [kg CO ₂ eq./m ³]	Full Lifecycle GWP-tot ¹ [kg CO ₂ eq./m ³]	Application
Enrich-30 Normal-Class 40 MPa	EPD-IES-0018917:001	40	299	319	General
Enrich-30 Normal-Class 50 MPa	EPD-IES-0018919:001	50	351	369	General
ENRICH-40 FOOTING 20MPa	EPD-IES-0018900:001	20	168	189	Footing
ENRICH-40 FOOTING 25MPa	EPD-IES-0018903:001	25	185	208	Footing
ENRICH-40 FOOTING 32MPa	EPD-IES-0018906:001	32	211	230	Footing
Enrich-40 Normal-Class 20 MPa	EPD-IES-0018912:001	20	171	192	General
Enrich-40 Normal-Class 25 MPa	EPD-IES-0018914:001	25	187	208	General
Enrich-40 Normal-Class 32 MPa	EPD-IES-0018916:001	32	213	232	General
Enrich-40 Normal-Class 40 MPa	EPD-IES-0018918:001	40	246	268	General
Enrich-40 Normal-Class 50 MPa	EPD-IES-0018920:001	50	286	307	General
ENRICH-50 FOOTING 20MPa	EPD-IES-0018901:001	20	136	159	Footing
ENRICH-50 FOOTING 25MPa	EPD-IES-0018904:001	25	149	171	Footing
ENRICH-50 FOOTING 32MPa	EPD-IES-0018907:001	32	170	191	Footing
FOOTING 20MPa	EPD-IES-0018908:001	20	227	245	Footing
FOOTING 25MPa	EPD-IES-0018909:001	25	251	267	Footing
FOOTING 32MPa	EPD-IES-0018910:001	32	289	303	Footing
FOOTPAVE 20MPa	EPD-IES-0018897:001	20	292	306	Footpath
FOOTPAVE 25MPa	EPD-IES-0018898:001	25	323	336	Footpath
IMAGECRETE 25MPa LAKELANDS WHITE	EPD-IES-0018923:001	25	267	282	Decorative
IMAGECRETE 25MPa MADORA BAY WHITE	EPD-IES-0018926:001	25	263	278	Decorative

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Product Environmental Performance

The EPD values presented are indicative of local material performance at the time of publishing and are subject to change based on material availability and seasonal factors.

Product Identification	EPD Registration Number	Compressive strength [MPa]	A1-A3 GWP-tot ¹ [kg CO ₂ eq./m ³]	Full Lifecycle GWP-tot ¹ [kg CO ₂ eq./m ³]	Application
IMAGECRETE 25MPA OYSTER WHITE	EPD-IES-0018924:001	25	267	282	Decorative
IMAGECRETE 25MPA TAMBURRI WHITE	EPD-IES-0018925:001	25	263	278	Decorative
KERB MACHINE-PLACED 25MPA	EPD-IES-0018927:001	25	252	268	Kerb
KERB MACHINE-PLACED 32MPA	EPD-IES-0018928:001	32	286	301	Kerb
LIQUIFILL	EPD-IES-0018954:001	No guaranteed strength	81	100	Liquifill
MRWA PILING 40MPA [PL404AH30]	EPD-IES-0018936:001	40	315	334	MRWA Piling
MRWA PILING 50MPA [PL504AD22]	EPD-IES-0018937:001	50	338	356	MRWA Piling
MRWA PILING 65MPA [PL654AB54]	EPD-IES-0018938:001	65	416	432	MRWA Piling
MRWA PILING 50MPA - MLH [ZTPIL50A]	EPD-IES-0018955:001	50	217	240	MRWA Piling
MRWA PILING 65MPA - MLH [PL654AD10]	EPD-IES-0018939:001	65	233	256	MRWA Piling
MRWA S40 GB [ZWR4020B]	EPD-IES-0018957:001	40	323	343	MRWA Structural
MRWA S65 GB [ZWR654AB]	EPD-IES-0018962:001	65	355	373	MRWA Structural
MRWA S40 GP [ZWR402DA]	EPD-IES-0018959:001	40	441	456	MRWA Structural
MRWA S50 GP [ZWR502CA]	EPD-IES-0018960:001	50	463	477	MRWA Structural
MRWA S40 LH (GP+ SLAG) [ZWR402BB]	EPD-IES-0018958:001	40	210	233	MRWA Structural
MRWA S40 LH (GP+FLYASH) [ZZP40AR91]	EPD-IES-0018964:001	40	278	297	MRWA Structural
MRWA S50 LH (GP+ SLAG) [ZWR502CB]	EPD-IES-0018961:001	50	220	243	MRWA Structural
MRWA S50 LH (GP+FLYASH) [ZZP50AJ66]	EPD-IES-0018965:001	50	324	343	MRWA Structural
MRWA S50 MLH [WA502AC55]	EPD-IES-0018953:001	50	202	225	MRWA Structural
Normal-Class 20 MPa	EPD-IES-0018929:001	20	230	247	General

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Product Identification	EPD Registration Number	Compressive strength [MPa]	A1-A3 GWP-tot ¹ [kg CO ₂ eq./m ³]	Full Lifecycle GWP-tot ¹ [kg CO ₂ eq./m ³]	Application
Normal-Class 25 MPa	EPD-IES-0018930:001	25	253	270	General
Normal-Class 32 MPa	EPD-IES-0018931:001	32	290	305	General
Normal-Class 40 MPa	EPD-IES-0018932:001	40	308	327	General
Normal-Class 50 MPa	EPD-IES-0018933:001	50	362	379	General
Post-tensioned 40 MPa (22 MPa @ 2 days)	EPD-IES-0018941:001	40	420	435	Post-Tensioned Slab
Post-tensioned 40 MPa (22 MPa @ 3 days)	EPD-IES-0018940:001	40	411	427	Post-Tensioned Slab
Post-tensioned 50 MPa (22 MPa @ 2 days)	EPD-IES-0018943:001	50	462	476	Post-Tensioned Slab
Post-tensioned 50 MPa (22 MPa @ 3 days)	EPD-IES-0018942:001	50	447	462	Post-Tensioned Slab
SLABMASTA/PMP 25MPa	EPD-IES-0018944:001	25	247	264	General
SLABMASTA/PMP 32MPa	EPD-IES-0018945:001	32	283	299	General
SLABMASTA/PMP 40MPa	EPD-IES-0018946:001	40	294	313	General
SLIPFORM BARRIER KERB 32MPA	EPD-IES-0018956:001	32	277	292	Kerb
SOFTPILE 20MPa	EPD-IES-0018963:001	20	235	251	Piling
SPRAYMASTA 25MPa	EPD-IES-0018947:001	25	305	319	Shotcrete
SPRAYMASTA 32MPa	EPD-IES-0018948:001	32	323	336	Shotcrete
SPRAYMASTA 40MPa	EPD-IES-0018949:001	40	341	358	Shotcrete
STABILISED SAND 7%	EPD-IES-0018950:001	No guaranteed strength	54	75	Stabilised materials
TILT-UP 32MPa	EPD-IES-0018951:001	32	356	368	Tilt-up
TILT-UP 40MPa	EPD-IES-0018952:001	40	426	442	Tilt-up

¹More detailed information is provided in the mix-specific tables and assumptions covered in Life Cycles & Processes section.



A photograph of a construction site. In the foreground, five workers wearing orange high-visibility vests and white hard hats are walking away from the camera towards a large yellow bulldozer. The bulldozer is positioned in front of a large, layered rock face. The ground is muddy and uneven.

References

EPD Owner	Heidelberg Materials Australia Pty Ltd L14, 35 Clarence St, Sydney NSW 2000 Phone: 1300 136 464 Online: www.heidelbergmaterials.com.au	
Programme Operator	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden Online: www.environdec.com Email: info@environdec.com	
Regional Programme	EPD Australasia Limited, 315a Hardy St, Nelson 7010 New Zealand Online: epd-australasia.com Email: info@epd-Australasia.com	
Process EPD Certified By	Megan Blizzard Epsten Group, Inc. 101 Marietta St. NW, Suite 2600, Atlanta, Georgia 30303, USA www.epstengroup.com Accredited by: A2LA, Certificate #3142.03	
Product Category Rules	CEN standard EN 15804:A2 (PCR 2019:14 Construction Products, Version 1.3.4) served as the core PCR. Environdec c-PCR-003 Concrete, concrete elements (EN 16757:2023) served as sub-PCR.	
EN 15804 PCR Review	The Technical Committee of the International EPD®System. Chair: Claudia A. Peña. The review panel may be contacted via info@environdec.com .	
EPD Registration Number	EPD-IES-0018963:001	
Independent Verification of the Declaration and Data, According to ISO 14025:	☒ EPD process certification ☐ EPD verification	
Valid From	2025-05-02	
Valid To	2030-05-02	
Version	1.0 2025-05-02	
Description of Version Differences (if NOT VERSION 1.0)	NA	
Geographical Scope	WESTERN AUSTRALIA - PERTH	
Important Notes	EPDs within the same product category but from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804. The EPD Owner maintains full ownership, liability and responsibility for the EPD.	
Product Group Classification	UN CPC 88 - Concrete, cement and plaster article manufacturing services	
ANZSIC Classification	2033 Ready Mix Concrete Manufacturing	

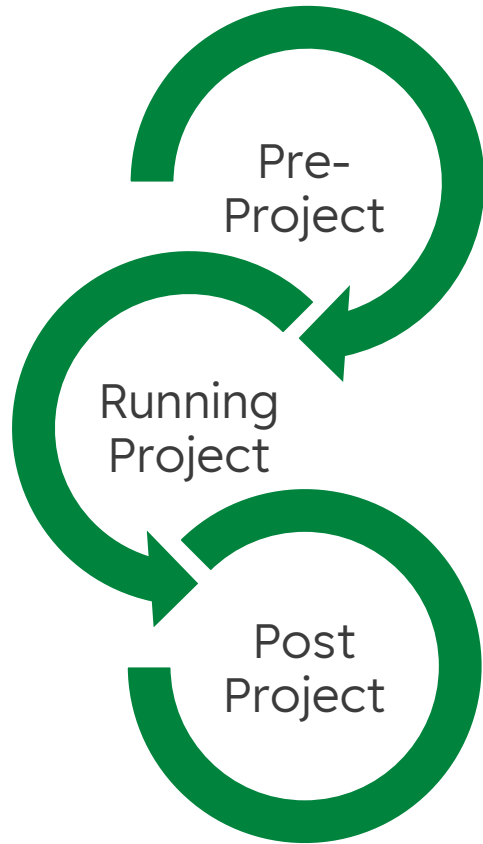


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CO₂ Service Offer



CO₂ is set to become a crucial budgeting currency in the construction sector. As such, it must be managed accordingly. Most provided embodied carbon emission data out there is based on estimates and typically handed over to the customer before a project starts.

At Heidelberg Materials Australia, we believe there's a better way to communicate carbon values, which also eliminates the current gap of carbon monitoring options during the construction phase in the market:

- 1) **Pre-project:** Predicting - We can provide you indicative CO₂ values for your specific project with our 3rd party verified CO₂ calculator (targeted & fast & reliable).
- 2) **Running project:** Monitoring - You get regular updates of your deliveries and how you track towards your carbon targets (no more surprises).
- 3) **Post-project:** Verification - You'll receive a final report and a project-specific EPD based on actual deliveries (highest accuracy).

