



Building
something
great

Low Carbon Concrete



Boral's range of low carbon concrete products can help you achieve your sustainability goals without compromising your engineering and architectural goals. Depending on the specific application needs of your project, our low carbon concrete range can help reduce embodied carbon by up to 70%.

Boral Concrete's Low Carbon Concrete (LCC) products can be used for a wide range of structures including:

- houses
- commercial buildings
- multi-residential buildings
- high-rise buildings
- civil projects
- infrastructure projects

By matching the engineering properties of our LCC products with your specific structural requirements, Boral can help you reduce the carbon footprint of your project while still achieving optimal performance and cost.

Traditionally low carbon concrete products have low early age strength and may have higher drying shrinkage which makes them less desirable for many applications. In particular they are unsuitable for precast elements and post tensioned slabs.

Boral's Low Carbon Concrete (LCC) range includes products that can significantly reduce your carbon footprint but will still provide good early age strength and superior engineering properties. They can be used for precast and post tensioned slabs so there is no compromise to the construction schedule and engineers can take advantage of the superior drying shrinkage properties.



30%

of our concrete sales volumes come from low carbon concrete



168

batching plants offering low carbon concrete

Contact us to request a quote

Quote
form →

Product Range

Boral has three product ranges **ENVIROCRETE®**, **ENVIROCRETE® PLUS** and **ENVISIA®**. ENVIROCRETE® is a traditional low carbon concrete product, ENVIROCRETE® PLUS has better early age strength and drying shrinkage properties and ENVISIA® concrete has the best early age strength and drying shrinkage properties. ENVISIA® also has a light colour and exhibits a very good appearance in an off-formwork finish.

Customers using these concretes have been able to achieve sustainability goals such as compliance with the Green Star and Infrastructure Sustainability Council's rating schemes.

ENVISIA®

Excellent early age strength and drying shrinkage characteristics.



ENVIROCRETE® PLUS

Good early age strength and can be used for some post tensioned applications.



ENVIROCRETE®

Suitable for all general applications where good early age strength and low drying shrinkage are not required.



“There are a few low carbon concrete products on the market, but Environmental Product Declarations (EPDs) are few and far between. At the time of preparing our Life-Cycle Assessment (LCA), Boral had the only comprehensive EPDs. This gave the project team confidence in the carbon reduction potential of the product and allowed us to recommend ENVISIA® to our client.”

– Sam Clegg, Associate Principle at Wardle Studio



The Boral advantage – ZEP® technology

Our low carbon concrete products replace cement with supplementary cementitious materials, such as ground-granulated blast-furnace slag and fly ash, and use proprietary ZEP® binder technology, to produce concrete with low embodied carbon concrete while maintaining and/or improving engineering outcomes for our customers.

Net zero concrete offering with additional carbon offsetting

For customers seeking a fully net zero concrete for their project, we supply an integrated package of any concrete covered under a current registered Environmental Product Declaration (EPD) together with credible carbon offsets. This offering is also certified under Australia's primary carbon neutral standard, Climate Active.

Decarbonising Concrete

To reduce the embodied carbon of our concrete, the Portland cement component is replaced with low carbon cementitious alternatives such as fly ash and ground granulated blast furnace slag (GGBFS). Previously, simply substituting a significant amount of cement in a concrete mix would negatively impact the feasibility of its use. However, with Boral's proprietary ZEP ® technology, we can offer low carbon concrete with good-early age strength, excellent drying/shrinkage properties, less prone to cracking and superior durability.

These enhanced and proprietary improvements provide engineers, builders, and architects with a cost-effective low carbon concrete alternative that can be used across multiple applications from the architecturally distinct to the most complex engineering challenges.

A key lever of our decarbonisation pathway is reducing cementitious intensity through our low carbon concrete strategy. Shifting our conventional concrete mixes to our **ENVISIA®**, **Envirocrete® Plus**, and **Envirocrete®** range of products will reduce our use of cement in the production of concrete.

Resources

Compare our Low Carbon Concrete in our [Technical Data Sheet](#)

[Low Carbon Concrete](#) products brochure

[What is Sustainable Concrete?](#)

[What is Green Concrete? Rethinking the Foundations of Construction](#)

[Carbon Negative Concrete: The Future of Sustainable Construction](#)

[What is Ashcrete? A Smarter, Greener Concrete Alternative](#)

[Building a Greener Future with Boral's Low Carbon Concrete](#)