



Allied Concrete

ecrete™

LOW CARBON, HIGH PERFORMANCE



Low Carbon Concrete

Ecrete™ is a revolutionary concrete mix engineered to reduce carbon impact without compromising on strength and durability. Our cutting-edge formula utilizes Supplementary Cementitious Materials (SCMs), like GGBS (Ground Granulated Blast-furnace Slag) and Fly Ash, to replace a portion of Portland cement. By doing this we drastically reduce the embodied carbon by up to 75%, making it an environmentally friendly option for any project.



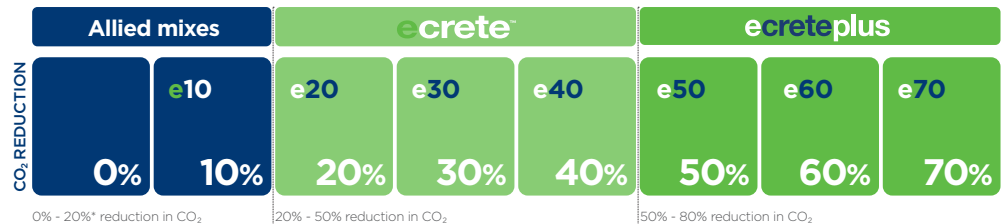
Building towards a sustainable future

As we move towards a brighter and more sustainable Aotearoa New Zealand, it's important that we consider all aspects of our building practices. Every day, Allied Concrete is taking steps to reduce our carbon footprint and create a better future for generations to come. That's why we're proud to introduce Ecrete™ - an innovative concrete mix designed to reduce carbon impact without compromising on strength and durability. With its cutting-edge formula and environmentally friendly properties, Ecrete™ is paving the way for sustainable building practices in New Zealand.

When you choose Allied Concrete, you're already taking a step towards sustainable building practices by reducing embodied carbon by up to 20%* compared to the 2020 ISC baseline. But with our revolutionary Ecrete™ range, we're able to take it even further - reducing CO₂ emissions by 20-75%. This innovative solution is designed to not only meet your project's needs but also make a positive impact on the environment. With Ecrete™, you can feel good about the concrete you use, knowing that you're making a difference in building a more sustainable future.

ecrete™

Ecrete™ reduces CO₂ by 10-50%*. Ecrete™ Plus is a bespoke carbon-reduced mix that our technical team can develop based on our client's specific requirements. Ecrete™ Plus can reduce CO₂ beyond 50% and is designed to balance our client's strength, flowability and finishing requirements.



Reduction in Embodied Carbon compared to 2020 Infrastructure Sustainability Council (ISC) 2020 baseline for ready mixed concrete.
*CO₂ reduction for Allied mixes will alter dependent on branch location



Ecrete™ is a game-changing solution for the construction industry, offering numerous benefits that contribute to enhancing the durability and longevity of concrete structures. It does this by reducing the permeability and enhancing the thermal profile of concrete during curing, Ecrete™ significantly reducing the embodied carbon of the project. This makes it an excellent choice for buildings seeking green building certifications and environmental product declarations (EPDs).

Green Building Schemes

Green building certifications are becoming increasingly important for construction projects seeking to demonstrate their commitment to sustainability. The use of Ecrete™ can make a significant contribution towards achieving Green

Star, Homestar or Greenroads credits related to reducing embodied carbon in the materials used for building or infrastructure projects.



Standard Concrete

- Up to 20% CO₂ reduction
- We achieve this by continuously improving our processes, resources, energy choices, waste management practices, and production methods.

Ecrete™

- 20% - 30% CO₂ reduction
- Is our most common Ecrete™ product. This can be used without any change to the workability and performance of the concrete.

Ecrete™

- 30% - 40% CO₂ reduction
- Provides better CO₂ reduction with little effect on usability.
- Best used for thicker concrete elements, marine environments where time may be an issue.

Features and Benefits

Over time, structures made with Ecrete™ require less maintenance, have a longer service life, and are ultimately more sustainable. Its superior properties make it a smart investment for any construction project looking to reduce its carbon footprint while ensuring long-lasting and resilient structures. As a result, Ecrete™ is quickly becoming a preferred choice for builders and developers who value sustainability and environmental responsibility.

FEATURES:

- Easy to use and place
- Suitable for pumping
- Ideal for use in aggressive ground conditions
- Verified and measurable reduction in embodied carbon
- Recognised by Green Star, Homestar and Greenroad

BENEFITS:

- **Increased Durability** - leading to longer service life and lower maintenance.
- **Decreased heat generation** - can help reduce thermal cracking and improve overall durability of the concrete.
- **Decreased permeability** - reducing the likelihood of corrosion and other damage caused by exposure to water and chemicals.



e40

Ecrete™

- 40% - 50% CO₂ reduction
- Suitable to use where more aggressive environments are encountered and programme has time to facilitate maturity

e50

Ecrete™ plus

- 50% - 60% CO₂ reduction
- Best used for where more aggressive environments are encountered and programme has time to facilitate maturity

e60+

Ecrete™ plus

- 60+ CO₂ reduction
- Bespoke mix that can be developed based on the client's specific requirements.
- Useful on bulk fills and subsurface concretes.

CASE STUDY »»

Waimea Dam

Over 30,000 tonnes of concrete was supplied to this project over the span of three years.

The design life of this concrete will exceed 100 years and meet the most stringent international safety standards.

A mixture of Ecrete™ e30 and e40 was used throughout this project.

Allied Concrete's contribution to the Waimea Dam project near Nelson, New Zealand, stands as a testament to their commitment to delivering sustainable, high-quality concrete solutions for major infrastructure projects. The dam, which began construction in September 2019, is the largest built in New Zealand in over 20 years and is expected to secure the Tasman region's water supply for the next 100 years.

As of July 2023, the Allied Concrete team has completed around 31,000m³ of concrete. The team has adhered to 145 environmental consents, ensuring each load is slump-tested by the client and every pour is tested. Notably, there have been no rejected loads or major incidents that impacted project milestones.

The team completed 14 embankment face slipform pours, averaging 350m³ per pour, taking anywhere between 60 and 70 hours continuously. Despite challenging conditions and terrain, the Allied Concrete team consistently delivered high-quality work and service, improving water quality, supporting primary industries, and providing significant economic benefits to the region.

In 2023, this project was awarded the Excellence in Concrete Infrastructure award at the Concrete NZ Nauhria Awards. Allied Concrete was a crucial member of the project team, which consisted of Waimea Water, Damwatch Engineering, and Fulton Hogan Taylors Joint Venture.



1,176,444 kg
reduction
of **CO₂**
emissions

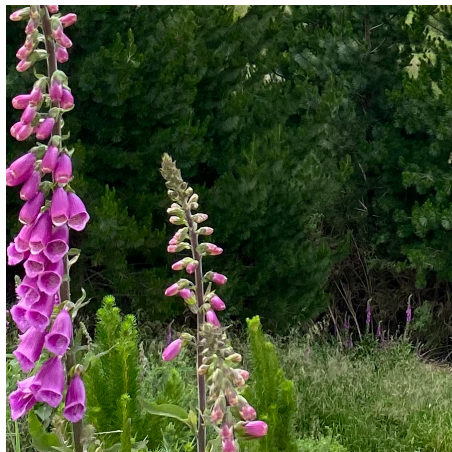


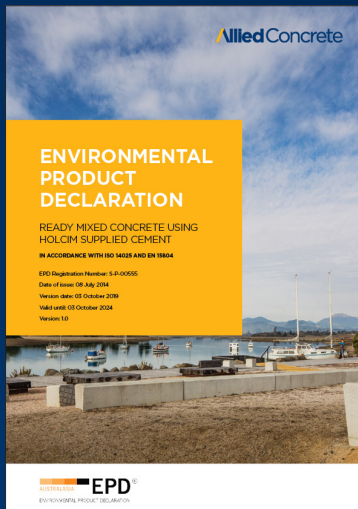
Photo: Waimea Water

Environmental Product Declaration

Allied Concrete is proud to have achieved the distinction of Australasia's first Environmental Product Declaration (EPD). Our commitment to environmentally sustainable practices has been a longstanding priority for us, and this achievement is evidence of our dedication to transparent and measurable environmental initiatives.

Our EPD pre-dated the scheme's introduction in New Zealand, setting the standard for others to follow. The EPD is independently verified and registered, providing quantifiable data on the impact our products have on the environment over their life cycle. This information allows us to make informed decisions on resourcing, energy choices, waste management, and production practices, ensuring that we remain steadfast in our commitment to sustainability.

By adhering to objectively measurable practices, we demonstrate our commitment to transparency and accountability, while also leading the industry in environmentally sustainable solutions. The EPD is just one example of how Allied Concrete leverages its expertise to deliver innovative, high-quality, and environmentally sustainable concrete solutions for our clients.



Available at alliedconcrete.co.nz to download or email info@alliedconcrete.co.nz to request a hard copy.



COMING SOON »

CO² Savings Calculator



*Calculation figures are an example only and should not be used as an accurate measure

SUSTAINABLE FOUNDATIONS »

SuperSlab+

Allied Concrete's
SuperSlab+ is a
game-changing
solution that delivers
edge-insulated
concrete foundations
designed to make new
homes and buildings
warmer, drier, and
healthier

Allied Concrete's SuperSlab+ is a groundbreaking solution that not only delivers exceptional performance, but also embodies our unwavering commitment to the environment. By combining the collective strength of Allied Concrete and QuickSet, we have engineered a solution that goes beyond the ordinary, ensuring our customers receive a superior product that exceeds minimum performance standards.

Previously recognized as the leading choice for raft foundations, our READY SuperSlab has now evolved into SuperSlab+, an innovative edge-insulated concrete foundation solution. With CodeMark certification and BRANZ appraisal, SuperSlab+ is specifically designed to meet the latest R-value requirements outlined in the H1 building code, offering unparalleled thermal performance while reducing energy consumption.

SuperSlab+ takes its environmental commitment to the next level when combined with our eco-conscious technologies like Ecrete™ and QPOD, a sustainable alternative to traditional polystyrene pod void made with recycled materials. By integrating these sustainable components, SuperSlab+ becomes the epitome of eco-friendly flooring solutions in the market.

Through our extensive expertise and collaborations with industry leaders, we have developed a solution that addresses the ever-growing demand for environmentally friendly products in the construction industry. Whether you seek a high-performance solution for your upcoming project or desire a flooring option that aligns with your sustainability goals, SuperSlab+ is the definitive answer you've been searching for.

By choosing SuperSlab+, you not only secure a superior product but also contribute to building a more sustainable future. Join us in our mission to create a greener world, one foundation at a time.

Your SuperSlab+ foundation will not only deliver superior performance, but also be an environmentally sustainable solution.



#1

**Sustainable
Flooring Solution
in New Zealand**

Ecrete™ Availability

Ecrete™ is available in the North and South island, subject to availability.

Stay updated on our website or call your local branch to find out if Ecrete™ is available in your area.



Allied Concrete

Consult your Allied Concrete representative for specialised information.

0800 4 ALLIED

0800 4 255 433



www.alliedconcrete.co.nz