Allied Concrete

SuperSlab

SuperSlab+

Engineered Raft Foundations

Allied Concrete's SuperSlab and SuperSlab+ are advanced engineered raft floor systems that set new standards in building performance. Whether you're after unmatched structural strength or a high-performing, thermally efficient solution that exceeds today's energy codes, we have you covered.

Designed for New Zealand's diverse conditions, SuperSlab and SuperSlab+ offer speed of installation, superior durability, and sustainability, reducing build time and delivering long-term value.

Building the Future with SuperSlab & SuperSlab+

SuperSlab is a cutting-edge engineered raft flooring system that replaces traditional slabs with superior strength, speed, and efficiency.

SuperSlab+ takes it further, adding edge insulation for warmer, drier, healthier homes, meeting today's toughest energy standards.

SuperSlab

- Engineered raft floor system with grillage of beams for superior stiffness and reduced need for deep perimeter footings
- Suitable for all ground types including poor soils
- Minimal excavation, fast install
- CodeMark certified & BRANZ appraised
- Ideal for houses, sheds, small commercial buildings, and warehouses

SuperSlab+

- Edge-insulated system designed for warmer, drier, healthier homes
- Meets and exceeds latest H1 building code R-value requirements
- Incorporates Ecrete™ low carbon concrete & QPOD recycled plastic pods
- Use QuickEdge for permanent, no-strip formwork, or QuickSet for a more economical traditional formwork option
- The ultimate sustainable flooring solution in New Zealand

QuickSet® QuickEdge®

Features and Benefits

SuperSlab and SuperSlab+ simplify construction from the ground up. Minimal excavation, quick set-up, and an engineered raft system mean your project stays on schedule and your site stays tidy.

FEATURES:

- Engineered raft floor system with grillage of beams
- Above-ground system, minimal excavation
- Works on all ground conditions (from 50kPa “good ground”)
- Integrated pods & spacers reduce concrete volume
- Suitable for houses, sheds, small commercial & warehouses
- CodeMark certified & BRANZ appraised

BENEFITS:

- Faster install, typically in days, not weeks
- Less excavation, backfill & disposal costs
- Improved R value & thermal mass for warmer floors
- Easy service placement & reduced site mess
- Long-lasting, low maintenance performance
- Can be used on all ground conditions regardless of your land classification, including: house slabs, shed floors, small commercial buildings, and warehouses

Step 1

Ground Prep

Create a building platform to a level surface, removing all topsoil, approximately 300mm minimum below finished floor level i.e. slab thickness and 20mm sand.

Step 2

Sand

Place layer of sand no more than 25mm thick over the entire building area extending to a minimum of 500mm outside the edge of the slab perimeter.

Step 3

Formwork

Construct formwork using traditional methods, or our preferred formwork system, QuickSet.

Step 4

DPM

Apply DPM to prepared base course extending to the outside of all edge beams or fold and staple up to inside of formwork. Overlap all joint with DPM to a minimum of 150mm. Tape laps and penetrations with 50mm wide pressure sensitive plastic tape.

Certified Solution

SuperSlab and SuperSlab+ are CodeMark-certified and BRANZ appraised. Having a CodeMark Certification means building consent authorities will accept SuperSlab as complying with the New Zealand Building Code (when used as specified in the CodeMark certificate).

You will still need to apply for building consent, however the CodeMark means no delays at council.

CodeMark
CMNZ30086

BRANZ Appraised
Appraisal No.964 [2017]

Conditions for CodeMark

SuperSlab and SuperSlab+ flooring systems will not require specific design or a producer statements from an engineer to gain building consent providing the following conditions are met:

- Site bearing pressure from 50kPa or "Good Ground" as stated in NZS3604: depending on building type (refer to Table 1 in the SuperSlab Technical Manual or for more info visit Alliedconcrete.co.nz)
- Design and installation is as per CodeMark and BRANZ appraisal to comply with the New Zealand Building Code
- Conditions of the CodeMark are adhered to rigidly

If the conditions are not able to be met, the system will require a Specific Engineering Design (SED)

* Depending on location of site a geotechnical soil report may be required by territorial authorities when lodging building consent

Step 5

Pods

Place pods in a regular waffle pattern using spacers in the specified grid pattern to fit floor plan.

Step 6

Reinforcing Steel

Place reinforcing steel to internal ribs supporting with spacers. Place two XD12 bottom bars around the perimeter footing. At corners, lap the inner bottom bar with the outer bar of the opposing footing.

Step 7

Reinforcing Mesh

Place reinforcing mesh and chairs at 1200mm centres minimum. Lap mesh 225mm minimum and tie at all laps.

Step 8

Concrete Pour

Pour SuperSlab ensuring all pods remain in place. The concrete thickness above the pods is 85mm. Vibrate concrete, finish concrete, and ensure concrete is correctly cured for the site conditions. Saw cut as necessary.

Sustainable Options

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.

ecrete™

Ecrete™ is a game-changing lower carbon concrete 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).

Ecrete™ is a revolutionary low carbon concrete mix engineered to reduce carbon impact without compromising on strength and durability, making it a cornerstone of sustainable building practices. Our cutting-edge formula incorporates various methods, including the use of supplementary cementitious materials (SCMs), lower carbon cement made in New Zealand, sustainable aggregate sourcing, and other initiatives. These methods are location-dependent and may change the features and benefits of Ecrete™ depending on the mix design you are getting.

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.

QuickSet®

QuickSet is an integral part of the SuperSlab+ system, offering a permanent insulated formwork solution that remains in place, eliminating the need for stripping.

For those seeking a more cost-effective approach, QuickEdge is also available, providing a traditional formwork option.

Both systems ensure efficient, high-quality foundations tailored to suit your project's performance needs and budget.

QPOD

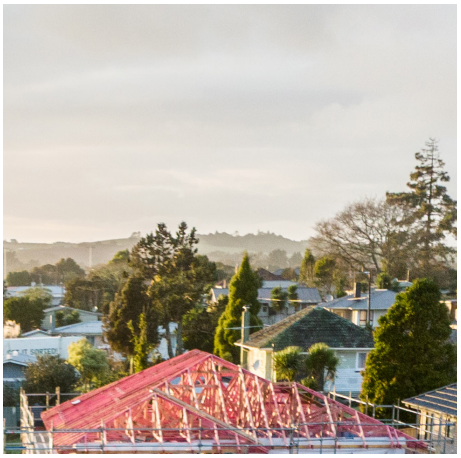
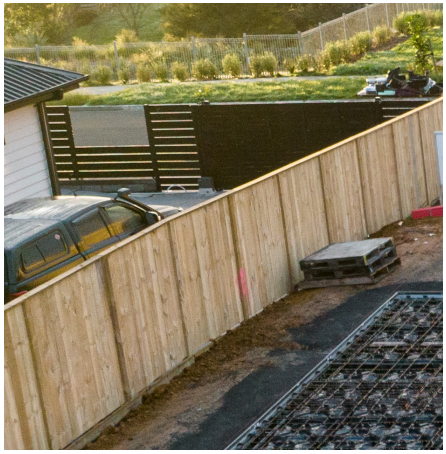
EARTH-FRIENDLY FLOORING

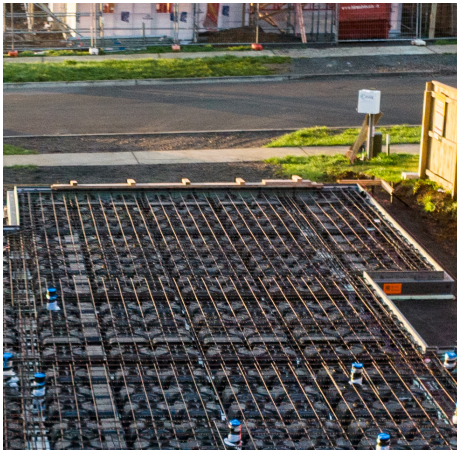
QPOD is a sustainable alternative to traditional polystyrene pods within the SuperSlab system. QPOD replaces polystyrene pods with no engineering changes required.

Key benefits include:

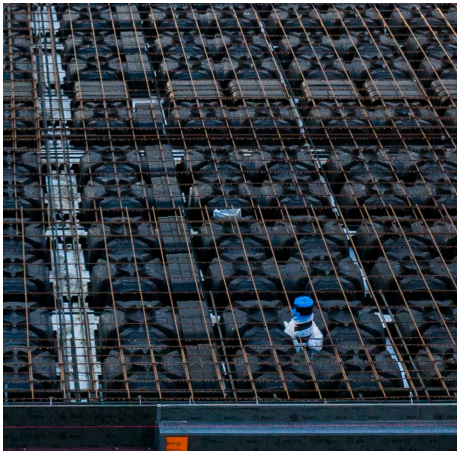
- Made from recycled material and 100% recyclable
- Clean work site with no fly-aways and poly beads
- Efficient transportation and storage





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

DesignHub

DesignHub makes planning your SuperSlab projects simple. Get instant, tailored foundation designs, accurate quantities, and reinforcing layouts, all ready to help you build faster and secure consents with confidence.

Scan to visit webiste

Design smarter, build faster, and secure compliance with ease. Allied Concrete's DesignHub is an innovative online platform that makes planning your SuperSlab and SuperSlab+ foundations simpler than ever. Whether you're designing a home, shed, warehouse, or commercial floor, DesignHub provides the tools you need to get it right, from the very start.

With DesignHub, you can instantly generate tailored slab layouts, reinforcing schedules and accurate take-offs for pods, spacers, and concrete volume, all specific to your site and building plans. This saves significant time on site and ensures your project is built on a foundation that meets CodeMark certification and BRANZ appraisal standards.

DesignHub also helps streamline your building consent process by producing clear, compliant documentation that's easy to share with your architect, engineer, builder, or local council. This reduces costly delays and eliminates surprises down the track.

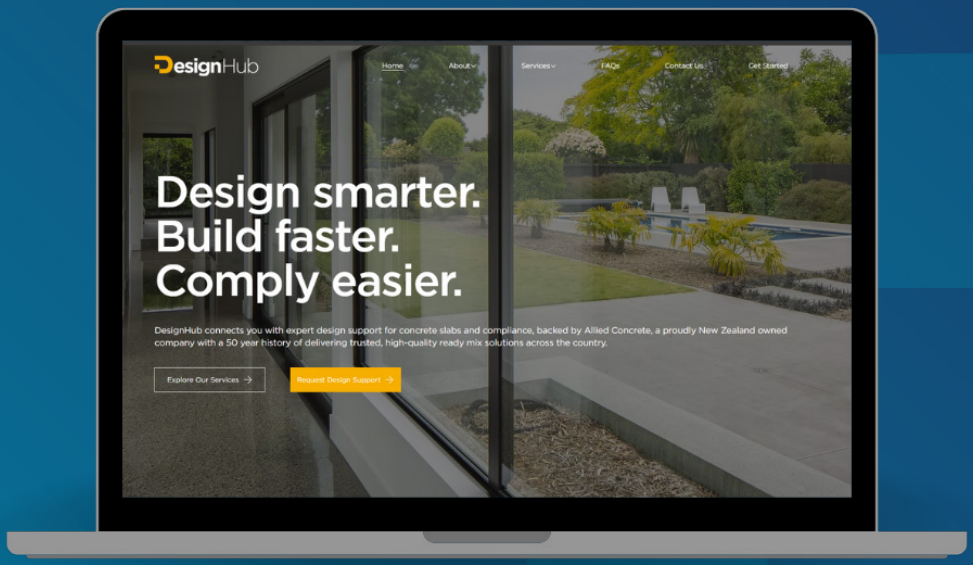
For builders and designers, it means faster quoting, easier project management, and more certainty from day one. For homeowners and developers, it means confidence that your project is starting with a strong, sustainable, and fully compliant foundation solution.

Join the hundreds of New Zealand builders, designers, and homeowners already simplifying their projects with DesignHub.

Start designing smarter today at thedesignhub.co.nz.

REQUEST DESIGN SUPPORT »

thedesignhub.co.nz



FAQ'S

1. **Why SuperSlab?**

   SuperSlab is an engineered and fully compliant slab solution. It saves time and money while increasing energy efficiency and strength. SuperSlab is CodeMark certified and BRANZ appraised.

2. **Can any builder construct a SuperSlab floor**?

   Yes, any qualified builder is able to construct a SuperSlab floor.

3. **When do you use or not use a pod floor, i.e. can the ground be too soft?**

   A CodeMark SuperSlab pod floor can be built on sites with an allowable bearing pressure from 50 kPa (50% of the standard 100kPa 'good ground' stated in NZS3604) depending on building type (refer to Table 1 in the SuperSlab Technical Manual). Other ground conditions require a Specific Engineering Design (SED). Pod floors fully suspended on piles over very poor ground, deep topsoil or peat can be very economical as the beams formed by the pods are able to span between piles with minimal extra reinforcement. A key benefit to a SuperSlab flooring system is that it can be tailored to any land classification.

4. **Is there a max weight that a pod floor can hold, e.g. can it be used for a floor where heavy vehicles are going to be parked etc?**

   The typical system is designed for 2.5kPa which is the garage floor loading of a house. Specifically designed slabs can be designed for up to 10kPa however reinforcement and topping thickness will vary for these designs.

5. **Can I use SuperSlab on a sloped section? Is there any advantage in me doing this?**

   You can use SuperSlab on a sloped section, small steps can sometimes be poured in one pour. For large steps the retaining wall footing is formed within the thickness of the floor of the lower portion, which minimises excavation. Stepped floors may require a SED.

6. **Is SuperSlab quicker than a standard floor slab and if so by how much?**

   Experienced contractors with the correct equipment can put a slab down in around 3 days. Whereas conventional footings can take around 2 weeks to complete. This means considerable labour savings.

7. **Does it use more concrete than a standard floor slab?**

   The interior of the slab including the ribs equates to 125mm of flat concrete but this is offset by the savings from:

   a. Hard fill to create the slab height.

   b. The block perimeter.

   c. Excavation and disposal costs for footings around the perimeter.

8. **How long will it take to get my plans engineered?**

   If 'good ground' exists on site an engineered plan is not required as per conditions of CodeMark. Normally a SED requires 7-10 working days for general design work.

9. **Does the council support pod floors in terms of getting consent? Will I need extra paperwork to get my consent?**

   Providing all conditions of the CodeMark are met and adhered to, councils must accept SuperSlab for consent (refer to Disclaimer in SuperSlab Technical Manual). Calculations, drawings, and details are all supplied by the slab designer and can be submitted at the time of the original building consent or as an amendment (if changing over from a conventional slab which already has consent).

10. Is it BRANZ appraised?

Yes, BRANZ appraisal No.964 (2017) acknowledges that a SuperSlab flooring system complies with the New Zealand building code. If a SED is required, PS1 and PS4 statements will be required when lodging a consent.

What is a PS1? A Design Producer Statement. This is confirmation from an engineer that it is designed to the New Zealand Building Code.

What is a PS4? A Construction Review Producer Statement. This is confirmation from an engineer that it has been constructed in accordance with the details shown on the consented documents relating to the PS1.

11. Does my SuperSlab have to have shear keys?

SuperSlab does not require shear keys as part of the foundation design when conditions of CodeMark are met (refer to SuperSlab Technical Manual Section 3.3). In earthquake Zones; 2,3,4 shear keys have traditionally been used and are still recommended except where lateral spreading of soils is observed (e.g. in Christchurch) as an alternative DBH guidelines (November 2011) section 5.6 outlines the detailing of service penetrations either through or within the slab. These details are available through Allied Concrete.

12. Will my R-value increase by using SuperSlab?

The R-value is a function of the slab geometry. SuperSlab floors provide improved R-value and thermal mass both of which contribute to a warmer floor. SuperSlab+ delivers superior thermal resistance (R-value) above minimum requirements. SuperSlab+ is an insulated, internally-braced, and permanent formwork system for raft foundations that can exist either as a fully-insulated system or as edge insulation alone.

13. Can you do an estimate for pods, spacers, and concrete volume?

Yes, Allied Concrete can supply you with an estimate of the number of pods, spacers, and the volume of concrete required. All we need is an email copy of your floor plan. There is no charge for this.

14. What is the design cost for my plan?

There are no engineer design costs associated with a CodeMark SuperSlab floor, however if a SED is required, this is generally charged out at an approximate minimum fee of $850 ex GST. This price will give you design plans and a PSI which can be used for consent purposes. Non-standard designs may incur an additional design fee.

15. What are the main advantages of SuperSlab+

Main benefits include:

- No need for strip boxing
- Pre-finished board with a 50-year durability assessment (other offerings only have 15 years)
- No coating of the outside of the board required.
- Due to independent testing QuickSet allows for a 6mm overhang when using a 90mm bottom plate while others require 140mm bottom plate to achieve the same result. This is a significant saving especially when building with brick

16. Where can I get a SuperSlab technical manual?

0800 4 Allied (0800 425 5433)
www.alliedconcrete.co.nz

Find SuperSlab and SuperSlab+ Near You!

SuperSlab and SuperSlab+ are available nationwide from all Allied Concrete plants, and also through our trusted network of licensed partners, including Higgins Concrete. For details on availability at your nearest plant, please get in touch with us.

Our team is dedicated to delivering high-quality engineered foundation solutions tailored to your project's needs, ensuring you receive the right SuperSlab system for your location.

Allied Concrete

Consult your Allied Concrete representative for specialised information.

0800 4 ALLIED

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