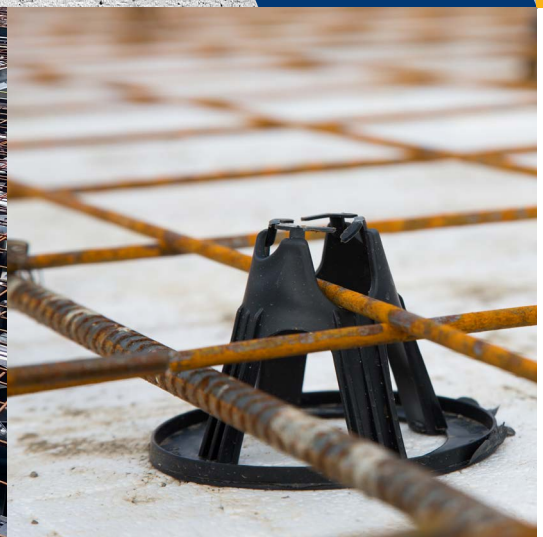
ENGINEERED RAFT FLOOR SYSTEM

SuperSlab

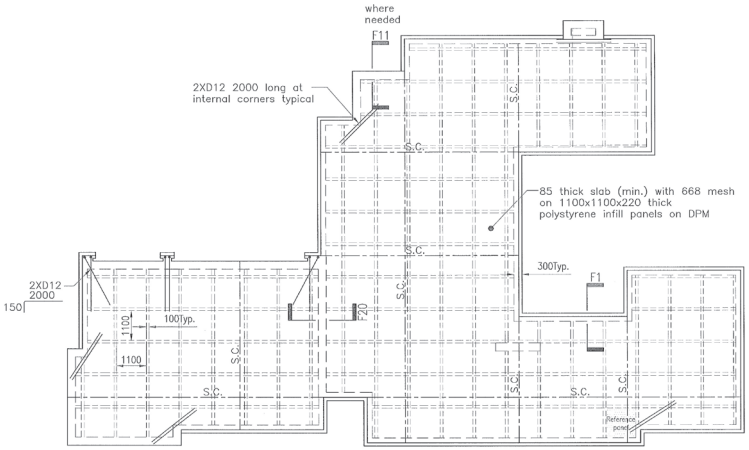
SuperSlab+



Allied Concrete
make hard easy

SuperSlab

READY Super Slab is an above ground engineered flooring system, known as a raft foundation, With a grillage of beams within the concrete slab it provides a stiffer and stronger final product than a conventional 100mm slab, and because of its inherent strength a deepened perimeter footing can usually be omitted.



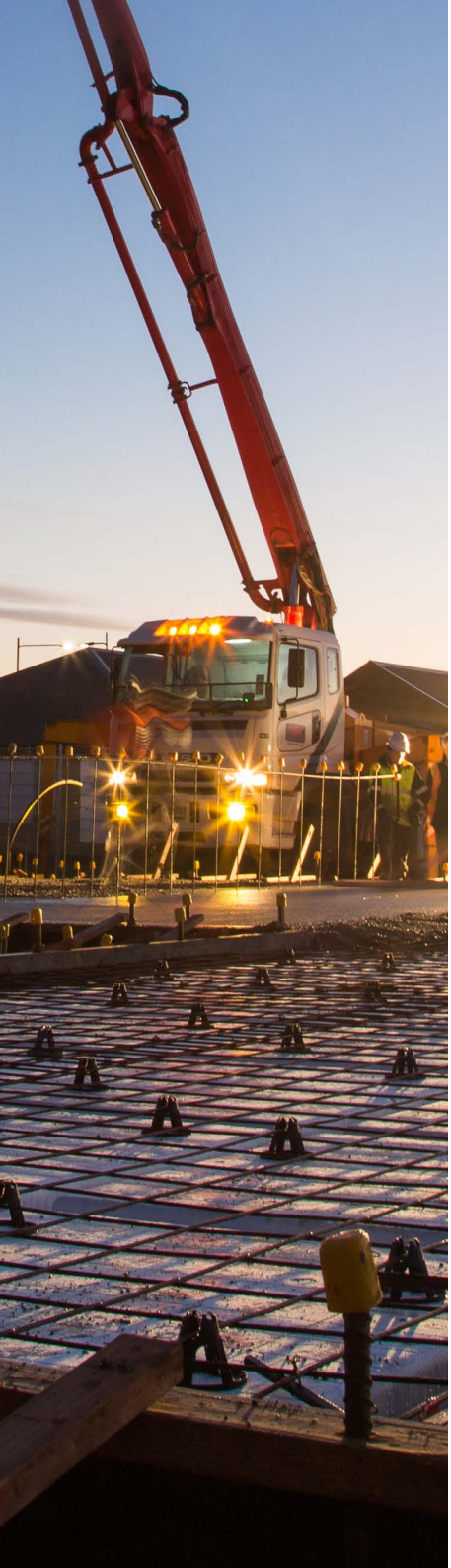
Pods

North Island:
1100 x 1100 x 220mm
1200 x 1200 x 200mm

South Island:
1100 x 1100 x 220mm
1100 x 1100 x 300mm

Spacers

100/300 universal spacer



Building the Future Stronger!

SuperSlab is a cutting-edge engineered raft foundation and flooring system that revolutionizes the way we build. Say goodbye to conventional concrete slabs and welcome a new era of superior strength and efficiency. SuperSlab rises above the competition with its unrivaled performance and innovative design, delivering unmatched sturdiness and durability. Experience a new construction journey where strength meets ingenuity, and foundations are reimagined for the better.

Where to use SuperSlab

SuperSlab can be used on all ground conditions regardless of your land classification, including:

- House slabs
- Shed floors
- Small commercial buildings
- Warehouses

Benefits

SuperSlab is an above ground engineered flooring system, known as a raft foundation, that delivers the following benefits over conventional floors and foundations:

- Speed of installation offers labour saving and reduced build time
- Minimal excavation
- Suitable for poor sites with low soil bearing capabilities
- Improved thermal performance (R value)
- Easy installation of services
- CodeMark certified and BRANZ appraised

LAYING READY SUPERSLAB

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.

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.

5. Pods

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

6. Reinforcing steel

Place reinforcing steel to internal ribs supporting with READY Super Slab 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. A lap of 600mm is required along straight sections of the perimeter. A 1200mm lap around corners is required

3. Formwork

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

4. DPM

Apply Damp Proof Membrane (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.

7. Reinforcing mesh

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

8. Concrete pour

Pour READY Super Slab mix 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.

SuperSlab+

Edge-Insulated Concrete Foundation

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.

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

Experience Unmatched Thermal R-Ratings and Durability with SuperSlab+

SuperSlab+ is a cutting-edge, edge-insulated concrete foundation that defines excellence in performance and sustainability. CodeMark certified and BRANZ appraised, SuperSlab+ surpasses the latest R-value requirements of the H1 building code, offering unmatched thermal performance and reduced energy consumption. Integrated with eco-conscious technologies like Ecrete™ and QPOD, SuperSlab+ becomes the epitome of environmentally friendly flooring solutions, showcasing our dedication to a greener future.

Where to use SuperSlab+

- House slabs
- Shed floors
- Small commercial buildings
- Warehouses

Benefits

SuperSlab+ leverages the QuickSet insulated, internally-braced, and permanent formwork system for raft foundations that can exist either as a fully-insulated system or as edge insulation alone. This innovative type of formwork saves time and materials – no time wasted on stripping or removing formwork once the concrete is poured.

- Simple and improved build process for foundations
- Materials made from 100% recycled plastic
- Formwork does not require stripping
- Tough and dense with high impact strength
- Insulating and self-extinguishing

QuickSet

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 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.

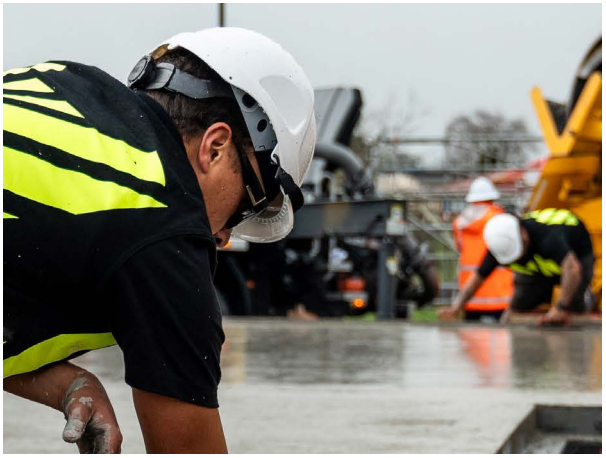
The use of Ecrete™ can make a significant contribution towards achieving Green Star, Homestar or Greenroads credits related to reducing embodied carbon in the materials used for building or infrastructure projects.

QPOD
EARTH-FRIENDLY FLOORING

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

Key benefits include:

- Made from recycled material and 100% recyclable with zero landfill waste
- Clean work site with no styrene fly-aways and poly beads
- Efficient transportation and storage (Pods for a 180sqm home can be transported on the back of a ute or single axis trailer)
- Integrated 40mm spacer eliminates the need for mesh chairs
- Stability - pods interlock to stay put during concrete pour and windy conditions
- The only CodeMark Certified plastic pod raft flooring system in New Zealand



Certified Solution

SuperSlab and SuperSlab+ are CodeMark-certified and BRANZ appraised. Having a CodeMark Certification means building consent authorities will accept READY Super Slab 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.

View the Allied Concrete SuperSlab Certificate of Conformity and BRANZ Appraisal at alliedconcrete.co.nz

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 Allied Super Slab 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

CODEMARK™
30086

BRANZ Appraised
Appraisal No.964 [2017]

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 Allied Super Slab Technical Manual). Other ground conditions require a Specifec 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. Where as conventional footings can take around 2 weeks to complete. This means considerable labour saving.

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 Allied 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 READY Super Slab?

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 to 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 4 255433)
www.alliedconcrete.co.nz

Allied Concrete

make hard easy

Consult your Allied Concrete representative for specialised information.

0800 4 ALLIED

0800 4 255 433

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