CodeMark>>>>

Certificate no: CMNZ30086

Version: H

Original issue date: 03 September 2020 Version date: 20 September 2023 Renewal date: 03 September 2026

1. Certificate Holder Details



Allied Concrete Ltd

35 Inglewood Road, Invercargill 9810. info@alliedconcrete.co.nz Tel: .03 2171600 or 0800 4 255433 www.alliedconcrete.co.nz

2. Product Certification Body

Global-Mark Pty Ltd

Trading as Global-Mark 57 Willis Street, Wellington, 6011 customer.service@global-mark.co.nz +64 9 889 0622 www.global-mark.co.nz

Complaints: The complaints process for this certificate can be found here: www.global-mark.co.nz/complaints

Global-Mark Managing Director.



Herve Michoux



Product Certificate

Allied SuperSlab Concrete Floors System

3. Description of Building Method or Product

Allied SuperSlab Concrete Floors are reinforced concrete, slab-on-ground floors, The method uses polystyrene void formers or QPOD moulded plastic pod void formers.

4. Intended use of Building Method or Product

Allied SuperSlab Concrete Floors has been designed to support timber framed or light steel framed residential houses up to 2 storeys.

5. New Zealand Building Code Provisions

Allied SuperSlab Concrete Floors System if designed, used, installed and maintained in accordance with the conditions of this Certificate will comply with or contribute to compliance with the following performance provisions of the NZ Building Code:

Clause B1 STRUCTURE: Performance B1.3.1, B1.3.2 and B1.3.4 for the relevant physical conditions of B1.3.3 (a), (b), (f)

(h), (j), (m) & (q)

Clause B2 DURABILITY: Performance B2.3.1 (a) and B2.3.2 (a) – not less than 50 years

Clause E2 EXTERNAL MOISTURE: Performance F2.3.3 and F2.3.7

Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1

Clause H1 ENERGY EFFICIENCY: Performance H1.3.1 and H1.3.2E for the relevant physical conditions of H1.3.3 (a) & (e)

6. Conditions and Limitations of Use

- 1. Allied SuperSlab Concrete Floors have been certified for use in buildings within the following scope limitations:
 - a. buildings, up to two storevs high, either::
 - i. timber framed within the scope of NZS 3604:2011 (paragraph 1.1.2), or
 - ii. steel framed within the scope of NASH standard Residential and low -rise Steel Framing-Part1: design criteria 2005 for steel framed buildings
 - b. with a maximum height of 10 m measured from the ground to the apex.
 - c. supported on "good ground" as defined by the Acceptable Solutions and Verification Methods for New Zealand Building Code Clause B1 Ministry of Business, Innovation and Employment, First Edition, July 2005 (Amendment 19, 28 November 2019),





This certificate is issued by an independent certification body accredited by JAS-ANZ, the product certification body appointed by the Chief Executive of the Ministry of Business, Innovation and Employment under the Building Act 2004. This certificate may only be reproduced in its entirety. It is advised to check that this certificate is currently valid and not withdrawn or suspended by referring to the Register of Product Certificates on the Building Performance website http://www.building.govt.nz.

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The purpose of construction site audits is to confirm the practicability of installing the product; and to confirm the appropriateness and accuracy of installation instructions. In issuing this certificate. Global-Mark has relied on the independent expert and/or laboratory advise or reports. In placing the CodeMark mark on the product/system, the certificate holder makes a declaration of compliance with the certification standard(s) and confirms that the product is identical to the product certified herein.

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- d. with a floor maximum length of 30 m unless detailed with free joints in accordance with Allied Concrete SuperSlab Technical Manual Rev I, July 2023; and
- e. situated in Wind Zones up to and including Extra High
- 2. Allied SuperSlab Concrete Floors shall be specified, designed, installed and maintained in accordance with the following Technical Documentation:
 - a. BRANZ Appraisal No. 964 [2023] Issued 19 May 2023 Allied SuperSlab Concrete Floors
 - b. Allied Concrete SuperSlab Technical Manual Rev I, July 2023
- 3. Reinforcing Steel, Polystyrene Pods or QPOD, Bar Chairs, Pod Spacers and Damp Proof Membrane must be selected, used, handled and stored in compliance with the requirement of the Technical Documentation
- 4. The installation must be either done or supervised by an LPB who holds either a carpentry or a foundation license and have access to the Technical Documentation
- 5. A minimum of 20 MPa Allied CSS or RSS mixes must be used except in Exposure Zone D where the minimum requirement is 25 MPa concrete. The specified concrete mixes must be manufactured in accordance with NZS 3104:2010 and in Allied Concrete plants.
- 6. Compliance with H1.3.1(a) and H1.3.2E for buildings incorporating the Allied SuperSlab concrete floor shall be established by specific design using
 - a. the Schedule Method in H1/AS1 Fifth Edition Amendment 1, (4 August 2022) and H1/AS2 First Edition Amendment 1, (4 August 2022), or
 - b. the Calculation Method in H1/AS1 Fifth Edition Amendment 1, (4 August 2022) and H1/AS2 First Edition Amendment 1, (4 August 2022), using construction R-values:
 - i. from the performance tables described in Acceptable Solution H1/AS1 Fifth Edition Amendment 1, (4 August 2022) Section F.1.2 or H1/AS2 First Edition Amendment 1, (4 August 2022) Section F.1.2 or
 - ii. calculated by the method in Verification Method H1/VM1 Fifth Edition Amendment 1, (4 August 2022) Appendix F Section F.1.2 or Verification Method H1/VM2 First Edition Amendment 1, (4 August 2022) Appendix F Section F.1.2.

7. Health and Safety Information

Standard industry safety practices and manufacturer safety requirements as detailed in the technical literature including the applicable SDS must be observed at all times.



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8. Basis for Certification

The certification decision is based on independent technical review(s) of test report(s), engineering opinion(s) and other documented evidence(s), factory audit(s) and site review(s)

| Code Clause | Compliance pathway | Evidence |
|---------------------------------|--|-------------------|
| B1 STRUCTURE: | Acceptable Solution – Testing and assessment | Items 1, 2, 3 & 4 |
| B2 DURABILITY: | Acceptable Solution – Reference to use of acceptable materials | Items 1 & 2 |
| E2 EXTERNAL MOISTURE | Acceptable Solution – Reference to New Zealand Standard | Items 1 & 2 |
| F2 HAZARDOUS BUILDING MATERIALS | Alternative solution – Expert judgement | Item 5 |
| H1 ENERGY EFFICIENCY | Acceptable solution based on H1/AS1 and H1/AS2 | Items 1 & 2 |

9. Supporting Documentation for Certification

| Rev | Author | Description | | |
|------|---------------------|---|------------------|--|
| 1. | Allied Concrete Ltd | Allied Concrete SuperSlab Technical Manual | Rev I, July 2023 | |
| 2. | BRANZ | BRANZ Appraisal No. 964 (2023) – Allied SuperSlab Concrete Floors 19 May 2023 | | |
| 3. * | Allied Concrete Ltd | Quick Set Structural Review | December 2019 | |
| 4. * | Allied Concrete Ltd | Quick Set Engineering Calculations | December 2019 | |
| 5. | Allied Concrete | Material Safety Data Sheet for Ready Mixed Concrete (plastic concrete, concrete slurry, concrete bleed water, wet concrete) | 20 January 2020 | |

^{*} These documents were provided commercial in confidence and are not publicly available

10. Supporting Information About Description (Optional)

Nil



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| 11. Supporting In | formation A | bout Intend | ec | Use | 0 | ptional | ۱ |
|-------------------|-------------|-------------|----|-----|---|---------|---|
|-------------------|-------------|-------------|----|-----|---|---------|---|

Nil

12. Supporting Information About Conditions and Limitations of Use (Optional)

Nil

All CodeMark certificates that are current must be registered with MBIE. MBIE maintains a register of valid product certificates. Please find the register here.

If the certificate is not listed on this register or it appears as (SUSPENDED), it is not a valid CodeMark certificate and does not have to be accepted by a building consent authority as establishing compliance with the New Zealand Building Code.

