

Certificate no: CMNZ30046

Version: I

Original issue date: 04 November 2019

Version date: 21 May 2025

Renewal date: 04 November 2028

1. Certificate Holder Details

**Allied
Concrete**

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 4 280 6672

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 Concrete READY Floor

3. Description of Building Method or Product

Allied Concrete READY Floor is a concrete flooring system that contains integral reinforcement in the form of steel fibres.

4. Intended use of Building Method or Product

Allied Concrete READY Floor is intended to use:

- for residential floor slabs with combined foundations for houses within the scope of either NZS 3604:2011 or NASH Standard Part 2: 2019 Light Steel Framed Buildings (NASH); or,
- for separately poured floor slabs with conventionally reinforced foundations for building within the scope of either NZS 3604:2011 or NASH; or,
- for commercial and/or industrial concrete slabs-on-ground from 100 mm to 150 mm thick.

5. New Zealand Building Code Provisions

Allied Concrete Ready Floor 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), (g), (h), (m) and (q)

Clause B2 DURABILITY:

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

Clause F2 HAZARDOUS BUILDING MATERIALS:

Performance F2.3.1

Clause H1 ENERGY EFFICIENCY:

Performance H1.3.1 (contributes to) and H1.3.2E (contributes to)

6. Conditions and Limitations of Use

1. Allied Concrete READY Floors have been certified for use in slabs within the following scope limitations:
 - a. for residential floor slabs with combined foundations for houses within the scope of either NZS 3604:2011 or NASH, built on good ground as defined by the B1/AS1 and B1/VM1,



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>. 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 advice 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. The revision of all Acceptable solutions, Verification methods or standards referenced in this certificate are the current at the time of issuance of the certificate unless identified otherwise.

Certificate no: CMNZ30046

Version: I

Original issue date: 04 November 2019

Version date: 21 May 2025

Renewal date: 04 November 2028

Product Certificate

Allied Concrete READY Floor



- b. for separately poured floor slabs with conventionally reinforced foundations for building within the scope of either NZS 3604:2011 or NASH, built on good ground as defined by the B1/AS1 and B1/VM1
 - c. as commercial and/or industrial concrete slabs-on-ground from 100 mm to 150 mm thick, on soil with a modulus of subgrade reaction of $k > 30$ kPa/mm.
 2. Allied Concrete READY Floor is not suitable for soils that are expansive or prone to liquefaction or differential settlement. The soil that the slab is to be poured on must be "good ground" as defined by the B1/AS1 and B1/VM1. For specific engineering design the modulus of subgrade reaction, k , must be greater than 30 kPa/mm.
 3. When Allied Concrete READY Floor is used for constructing concrete slab-on-ground floors for buildings within the scope of either NZS 3604:2011 or NASH with the foundation integral with the floor slab,
 - a. slab and foundation must be placed as one continuous pour.
 - b. The dimensions of the floor and foundations must be as described in NZS 3604:2011, Figure 7.13 (B) or 7.15 (B), for the concrete slab-on-ground with combined foundations. There is no requirement for the steel mesh or R10 stirrups and only one D12 bar is required at each of the top and bottom of the footing. These bars must be installed in accordance with the Allied Concrete READY Floor Brochure 11/16/V1. The minimum depth of Allied Concrete READY Floor foundations below cleared ground level shall be 200 mm as specified by NZS 3604:2011, Paragraph 3.4.2. The inner face of the foundation shall slope up to the underside of the integral floor slab at an angle of approximately 45°, as shown in NZS 3604:2011, Figure 7.13 (B).
 - c. satisfactory cover to any supplementary steel incorporated in the concrete must be maintained.
 - d. the dimensions of slab thickenings under internal loadbearing walls must be as described in NZS 3604:2011, Section 7.5.11, except that there is no need for additional reinforcing.
 4. When Allied Concrete READY Floor is used for constructing concrete slab-on-ground floors for buildings within the scope of either NZS 3604:2011 or NASH with foundation poured separately,
 - a. they must be in accordance with NZS3604:2011, Figure 7.13 (B), 7.14 (B) or 7.15 (B), including the reinforcement steel and its coverage; and,
 - b. The slab may then be poured at a later date, and mesh not required.
 - c. the dimensions of slab thickenings under internal loadbearing walls must be as described in NZS 3604:2011, Section 7.5.11, except that there is no need for additional reinforcing.
 5. For other concrete slab within the scope of this certification including building subject to Specific Engineering Design,
 - a. Table 1 gives the maximum loads for different slab thicknesses for Allied Concrete READY Floor.
 - b. Thickness up to 200mm may be used provided the allowable loads do not exceed what is shown in Table 1, or specific design is required.
 - c. Allied Concrete READY Floor commercial / industrial ground floor slabs should be detailed following industry best practice, such as but not limited to:
 - i. isolating slabs from beams or internal columns;

JAS-ANZ



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>. 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 advice 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.

Certificate no: CMNZ30046

Version: I

Original issue date: 04 November 2019

Version date: 21 May 2025

Renewal date: 04 November 2028

Product Certificate

Allied Concrete READY Floor



- ii. local reinforcing at re-entrant corners; and
- iii. incorporating free movement joints with dowels, where necessary, to transfer slab loads across joints.

Table 1: Maximum Loads

Floor Thickness (mm)	Maximum Loads		
	Tonne/axle	Tonne/point	Tonne/m2
100	1.2	0.3	0.3
120	3.0	1.0	1.5
130	3.5	1.5	2.0
140	4.0	2.0	2.5
150	6.0	3.0	3.0

6. Shrinkage control joints must be made by saw cuts at maximum 6 metre centres. Saw cutting of Allied Concrete READY Floor should be carried out as soon as the concrete surface can endure the saw cutting process but no later than 24 hours after placement. It is recommended that shrinkage control joints extend from re-entrant corners. Where this is not practical supplementary steel in accordance with NZS 3604:2011, Clause 7.5.8.6.4 (b) must be used.
7. Regardless of whether the foundations are poured separately or are integral to the slab, the dimensions of slab thickenings under internal loadbearing walls must be as described in NZS 3604:2011, Section 7.5.11, except that there is no need for additional reinforcing.
8. Shrinkage control joints must be made by saw cuts at maximum 6 metre centres. Saw cutting of Allied Concrete READY Floor should be carried out as soon as the concrete surface can endure the saw cutting process but no later than 24 hours after placement. It is recommended that shrinkage control joints extend from re-entrant corners. Where this is not practical supplementary steel in accordance with NZS 3604:2011, Clause 7.5.8.6.4 (b) must be used.
9. The concrete for Allied Concrete READY Floor must be placed, finished and cured in accordance with the requirements of NZS 3109:1997 including Amendment 1 and 2.
10. The installer shall also comply with all relevant technical information relating to the products use, including information contained within the Allied Concrete READY Floor Brochure 11/16/V1 and the BRANZ Appraisal No. 810 (2023) Allied Concrete READY Floor dated 20 December 2017 and this certificate.



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>. 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 advice 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.

Certificate no: CMNZ30046

Version: I

Original issue date: 04 November 2019

Version date: 21 May 2025

Renewal date: 04 November 2028

Product Certificate

Allied Concrete READY Floor



11. Compliance with H1.3.1(a) and H1.3.2E for buildings incorporating the Allied Concrete READY Floors shall be established by using the R value for the relevant configuration as in Section F.1.2 of H1/AS1, H1/AS2, H1/VM1 or H1/MV2.
12. The designer shall provide a signed Declaration for submission with the building consent application that the use of this product in the proposed building work falls within the intended use of the system as described in this certificate and that all design conditions of this certificate have been met.
13. The installer shall supply a signed Declaration that the product has been installed in accordance with the installation conditions of this certificate, for consideration for issuing a Code Compliance Certificate (CCC).

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.

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 Objective Clause	Compliance pathway
B1 STRUCTURE:	Alternative solution based on using B1/VM1
B2 DURABILITY:	Verification method using B2/VM1
F2 HAZARDOUS BUILDING MATERIALS	Alternative solution based on performance clause of F2.3.1
H1 ENERGY EFFICIENCY	Acceptable solution based on H1/AS1, H1/AS2, H1/VM1 and H1/MV2

9. Supporting Documentation for Certification

Author	Description	Date and/or Revision
Allied Concrete Ltd	Allied Concrete READY Floor Brochure	11/16/V1
BRANZ	BRANZ Appraisal No. 810 (2023) Allied Concrete READY Floor	08 May 2023



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>. 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 advice 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.

Certificate no: CMNZ30046

Version: I

Original issue date: 04 November 2019

Version date: 21 May 2025

Renewal date: 04 November 2028

Product Certificate

Allied Concrete READY Floor



BRANZ	BRANZ Appraisals Codemark Certification – NZBC compliance document)	TP1826 *
Allied Concrete	Material Safety Data Sheet for Ready Mixed Concrete, Wet	January 2025

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

10. Supporting Information About Description (Optional)

The steel fibres used as reinforcing for Allied Concrete READY Floor are Dramix® READY fibres manufactured by Bekaert. They are nominally 60 mm long with a diameter of 0.75 mm. Each end of each fibre has a hook. The steel is low carbon with a tensile strength of 1225 MPa. The fibres have a bright steel finish. The fibres are manufactured in accordance with EN14889-1:2006 and the dosage used exceeds the minimum declared value in accordance with the CE Certifications BC1-251-0024-0051-001 and BC1-251-0024-0051-002.

The steel fibre reinforced concrete used for Allied Concrete READY Floor is batched at plants that are certified under the New Zealand Ready Mixed Concrete Association Plant Audit Scheme.

The concrete grade for use with Allied Concrete READY Floor is 20 MPa, 25 MPa or 30 MPa, manufactured in accordance with NZS 3104:2003 including Amendment 1 and 2.

Where reinforcing steel is required, D300E12 bars in accordance with AS/NZS 4671:2001 including Amendment 1 are to be used.

11. Supporting Information About Intended Use (Optional)

Allied Concrete READY Floor is expected to have a serviceable life equal to that of standard concrete floors and slabs. Degradation of exposed fibres at exterior concrete surfaces will occur, and these degraded exposed fibres will be removed by weathering. This degradation is non-structural and will not affect compliance with B2.3.1(a) for these concrete structures.

There is no minimum cover requirement to the steel fibres in Allied Concrete READY Floor. However, corrosion products at the surface may be created as a result of the steel fibres corroding. Allied Concrete READY Floor may not be suitable where decorative, exposed aggregate or architecturally sensitive concrete is specified.

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.



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>. 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 advice 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.