

Certificate no: CMNZ30156

Version: A

Original issue date: 11/03/2024

Version date: 11/03/2024

Renewal Date: 11/03/2027

Product Certificate

QPOD Foundation

1. Certificate Holder Details



QPOD Earth Friendly Foundations
15 Thames Street, Pandora Napier 4110
sales@qpod.co.nz
Tel:+64 6 834 4806
www.qpod.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

3. Description of Building Method or Product

The QPOD Foundation is a building method which utilizes QPOD plastic void formers, certified concrete and reinforcing steel to form reinforced concrete, slab-on-ground floors in either Raft or Continuous format

4. Intended use of Building Method or Product

QPOD concrete floors have been designed to support timber framed or light steel framed residential houses up to 2 storeys.

5. New Zealand Building Code Provisions

The 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) Self-weight, (b) Imposed gravity loads arising from use, (f) Earthquake, (g) Snow, (h) Wind, (j) Impact, (m) Differential movement, (q) Time dependent effects including creep and shrinkage
Clause B2 DURABILITY:	Performance B2.3.1(a) and B2.3.2(a) – not less than 50 years
Clause E2 EXTERNAL MOISTURE:	Performance E2.3.3 and E2.3.7
Clause F2 HAZARDOUS BUILDING MATERIALS:	Performance F2.3.1
Clause H1 ENERGY EFFICIENCY PROVISIONS	Performance H1.3.1, H1.3.2E & H1.3.3 (a) & (e)

6. Conditions and Limitations of Use

- QPOD Concrete Floors are certified for use in buildings within the following scope limitations:
 - buildings, up to two storeys high, either:
 - timber framed within the scope of NZS 3604:2011 (paragraph 1.1.2), or
 - steel framed within the scope of NASH Part 2:2019 Light Steel Framed Buildings.
 - with a maximum height of 10 m measured from the ground to the apex,



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- c. supported on:
 - i. “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 21, 2 November 2023) or
 - ii. “TC1” ground as defined in Repairing and rebuilding houses affected by the Canterbury earthquakes, Ministry of Business, Innovation and Employment, Version 3, Dec 2012 or
 - iii. on ground with a reduced ultimate bearing capacity of minimum 200kPa with all other requirements of ‘Good ground’ and ‘TC1” type ground.
 - d. with weights and loads as set out in section 2.2 of THE QPOD® DESIGN MANUAL for CONTINUOUS and RAFT applications VERSION 1.4 November 2023; and
 - e. situated in Wind Zones up to and including Very High; and
 - f. In areas of Seismic Hazard Factor Z is equal to or less than 0.45 (Zone 3)
2. Design shall be in accordance with THE QPOD® DESIGN MANUAL for CONTINUOUS and RAFT applications VERSION 1.4 November 2023.
 3. The installation must be either done or supervised by an LBP who holds either a carpentry or a foundation license and have access to the Technical Documentation.
 4. Certified concrete in accordance with NZS 3104:2021 shall be used for all QPOD® foundations with reference to the Zone exposure categories outlined in 4.2.3 of NZS3604-2011 For Exposure Zones B-C, Foundations shall be 20 MPa minimum. For Zones D (sites within 500m from the sea or within 100m from tidal estuaries and sheltered inlets), foundations shall be 25 MPa minimum.
 5. Compliance with H1.3.1(a) and H1.3.2E for buildings incorporating the QPOD concrete floor shall be established by specific design using either:
 - 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

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- 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.

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	B1/AS1 and referenced Standards NZS3604 with secondary reference of NZS3104	Items 1 & 2
B2 DURABILITY	B2/AS1 and referenced Standard NZS3604 with secondary reference of NZS3104	Items 1 & 2
E2 EXTERNAL MOISTURE	E2/AS1 and referenced Standard NZS3604	Item 1
F2 HAZARDOUS BUILDING MATERIALS	By evaluation against the performance clause F2.3.1	Item 1
H1 ENERGY EFFICIENCY PROVISIONS	Verification Method H1/VM1 Appendix F, 29 Nov 2021 for calculation of R value	Items 1 & 3

9. Supporting Documentation for Certification

Rev	Author	Description	Date and/or Revision
01	Polymer Systems International Ltd	THE QPOD® DESIGN MANUAL for CONTINUOUS and RAFT applications	Version 1.4, November 2023
02*	Tetrad Consulting Ltd	QPOD Codemark Structural Design Summary	Rev A, 3 rd December 2023



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Title of Product



03* Sustainable Engineering Ltd QuickSet QPod - Slab NZBC R-value and Passive House Ψ and fRSI 24 February 2023

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

10. Supporting Information About Description (Optional)

Nil

11. Supporting Information About Intended Use (Optional)

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.



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