CodeMark

Certificate no: CMNZ70079
Version: 1
Original issue date: 15 July 2020
Version date: 17 April 2024

Product Certificate

Formance Structural Insulated Panel (SIP) Building System

1. Certificate Holder Details

FORMANCE

Method Building Systems Ltd
31 King Edward Terrace, Woolston, Christchurch 8023
New Zealand
info@formance.co.nz
Ph: 0800 000 527
www.formance.co.nz

2. Product Certification Body

Bureau Veritas Australia Pty Ltd
11/500 Collins Street
Melbourne VIC 3000 Australia
product.certification@bureauveritas.com
Ph: 1800 855 190
www.bureauveritas.com.au

Complaints: The complaints process for this certificate can be found here: www.bureauveritas.com.au/your-feedback

Sam Guindi – Bureau Veritas Product Certification Manager

3. Description of Building Method or Product

Name of the product or method in Aotearoa New Zealand, including any brand names used. Description of what it is and the components that make up any system and its physical attributes including the materials and make-up of the product, where applicable. Matters that should be taken into account in the use or application of the building method or product can be found in item 6. Conditions and Limitations of Use. Continuation of description can be found in item 10 – Supporting Information about Description. [Delete if not applicable]. The building method's or building product's catalogue or model identification number or numbers or other unique identifiers that might be used to identify the building product or building method

The Formance Structural Insulated Panel (SIP) Building System consists of a composite panel floor wall and roof system, utilising a flame-retardant expanded polystyrene (EPS) core between layers of oriented strand board (OSB) facing material.

Formance Ready™ is a subset system and consists of 150 mm thick wall and ceiling panels.

4. Intended use of Building Method or Product

Intended use of the building method or product as described in the product manual and other instructional materials. A statement of the function or purpose of the building method or product. Continuation of intended use can be found in item 11 – Supporting Information about Intended use. [Delete if not applicable]

The Formance Panels SIP Building System is a structural system of internal and external floor, walls, roof panels for use beneath roofing and cladding. The OSB facing may serve as an internal lining or provide a substrate for attachment of an alternative lining. The exterior facing OSB provides a substrate for attachment of exterior wall or roof cladding.

5. New Zealand Building Code Provisions

The performance clauses of the New Zealand Building Code that are relevant to the intended use and with which the building method or product complies or contributes to (where used as part of a system).

How the building method or product complies or contributes can be found in item 8. Basis for Certification. Any qualifications on the extent of that compliance can be found in item 6. Conditions and limitations of use.

B1 Structure - B1.3.1, B1.3.2, B1.3.3 (a, b, f, g, h, j, q), B1.3.4
B2 Durability - B2.3.1(a), B2.3.2
C3 Fire affecting areas beyond the fire source - C3.4(a)
E3 Internal Moisture – E3.3.1
F2 Hazardous building materials - F2.3.1
H1 Energy efficiency - H1.3.1, H1.3.2E (contributes to)

CodeMark

Certificate no: CMNZ70079
Version: 1
Original issue date: 15 July 2020
Version date: 17 April 2024

Product Certificate

Formance Structural Insulated Panel (SIP) Building System

BUREAU VERITAS

6. Conditions and Limitations of Use

The building method or product's use is to be in accordance with the installation instructions and requirements against which the building method or product was assessed.

Conditions or limitations of conformity for the performance requirements the building method or product is compliant with, including any requirements for people with the qualifications and skills to install or use the building method or product, any known or demonstrated situations where the building method or product should not be used. A statement as to whether there are any matters that should be taken into account in the use or application of the building product or building method and, if so, what those matters are.

1. The Formance Structural Insulated Panel (SIP) Building System (with the exception of the Formance Ready™) is certified for use in buildings:
    a) Within the scope of NZS3604 para 1.1, and:
    b) Max 2kPa snow load
    c) Up to and including heavy roof (as in NZS3604)
    d) Up to and including Extra High wind zone (as in NZS3604)

2. The Formance Ready™ system is certified for use in buildings:
    a) Within the scope of NZS3604 para 1.1, and:
    b) Max roof loaded dimension is 6m
    c) Max height of Formance Ready Wall is 3m
    d) Max 1kPa snow load
    e) Up to and including Very High Wind zone.
    f) Max floor joist span bearing on lower of two story walls 5.2m

3. Exterior panels shall be protected by a cladding or roofing system incorporating building underlay, and for walls, a minimum 18mm drained ventilated cavity as described in E2/AS1.

4. Panels shall not be used where the risk score is greater than 20.

5. Panels used in wet areas shall be protected from water by a supplementary wall lining or applied coating system.

6. If electric cables are run inside the panel core that come in contact with EPS, they shall have an insulation sheathing made from plasticizer migration- resistant material.

7. For buildings where the use requires a Material Group Number less than 3 (as specified by NZBC Clause C3.4 (a)), a supplementary wall lining or other treatment or surface finish with a Material Group Number less than 3 shall be fixed to the internal OSB facing.

8. Establishing compliance with the performance criteria in Building Code clauses H1.3.1(a) and H1.3.2E shall be in accordance with either of the following:

a) the calculation method in Acceptable Solution H1/AS1 (Fifth edition Amendment 1) or the modelling method in H1/VM1 (Fifth edition Amendment 1), for all housing and buildings up to 300 m^2 or
b) the calculation method in H1/AS2 (Fifth edition Amendment 1) or the modelling method in H1/VM2 (Fifth edition Amendment 1), for buildings greater than 300 m^2.

9. The Formance SIP Building System shall bedesigned and installed in accordance with:
a) The Formance Design Guide V1.1, 26 June 2018 (for building consents granted up until 30th June 2024)
b) The Formance Design Guide V2.0 January 2024
c) Formance Ready™ Guide v1.0 26 June 2018 (for buildings using the Formance Ready 150mm panels)

7. Health and Safety Information

Health, safety, and well-being declarations associated with installation, maintenance, and use of the building method or product, and their specific editions and dates necessary to ensure the performance requirements of clauses F1 to F9 of the Building Code can be met.

The compliance with any manufacturer's installation instructions, maintenance, OH & S statements, MSDS's and other Health and Safety declarations will provide the necessary Health and Safety Information pertaining to the product.

8. Basis for Certification

How the performance requirements in the Building Code were met for each of the provisions. Where used as part of a system, the specific contribution to compliance.

B1 Structure - By testing and comparison with Acceptable Solution B1/AS1 and referenced standard NZS3604

B2 Durability - By analysis and comparison with Verification Method B2/VM1

C3 Fire affecting areas beyond the fire source - By testing and comparison with Verification Method C/VM1 and Acceptable Solution C/AS2

E3 Internal Moisture – By comparison with the requirements of E3/AS1

F2 Hazardous building materials - By testing and comparison with the Building Code Clause F2.3.1

H1 Energy efficiency - By testing and comparison with Verification Method H1/VM1

CodeMark

Product Certificate

Formance Structural Insulated Panel (SIP) Building System

Certificate no: CMNZ70079
Version: 1
Original issue date: 15 July 2020
Version date: 17 April 2024

9. Supporting Documentation for Certification

Reference to any acceptable solutions, verification methods, New Zealand Standards, or other compliance pathways referenced against each individual performance requirement the building method or product is compliant with, and their specific version and date. Reference to documents describing tests and evaluations and any other documents relied on for certification or used to prove compliance, including their full title, specific version and date.

1. Acceptable Solutions and Verification Methods For New Zealand Building Code Clause B1 Structure (Amendment 21), 2 November 2023
2. Acceptable Solutions and Verification Methods For New Zealand Building Code Clause B2 Durability (Amendment 12), 28 November 2019
3. C/AS2 Acceptable Solution for Buildings other than Risk Group SH For New Zealand Building Code Clauses C1-C6 Protection from Fire, First Edition, Amendment 3), 2 November 2023
4. C/VM2 Verification Method: Framework for Fire Safety Design For New Zealand Building Code Clauses C1-C6 Protection from Fire (Amendment 7), 2 November 2023
5. Acceptable Solutions and Verification Methods for New Zealand Building Code Clause E3 Internal Moisture Second edition (Amendment 7), 5 November 2020
6. H1 Energy Efficiency, Acceptable Solution H1/AS1, Energy efficiency for all housing, and buildings up to 300 m², Fifth edition Amendment 1, 4 August 2022
7. NZWTA Report No. 1231866.3R ASTM C518-2017 Steady State Thermal Transmission Properties by Means of the Heat Flow Apparatus, 1 August 2018
8. Formance - Summary of evidence to support compliance with the New Zealand Building Code Version 1.0, February 2024
9. SCION SIP Bending Testing, 17 June 2013
10. SCION Series of P21:2010 bracing tests on SIPs panels of various configurations
11. Formance Design Guide V2.0 January 2024
12. Formance Design Guide V1.1, 26 June 2018
13. Formance Ready Guide V1.0, 26 June 2018

10. Supporting Information About Description (Optional)

Any supporting information for section 3.

The Formance Panels SIP Building System panels are available in a range of thickness, and R-values.

CodeMark

Product Certificate

Formance Structural Insulated Panel (SIP) Building System

Certificate no: CMNZ70079
Version: 1
Original issue date: 15 July 2020
Version date: 17 April 2024

Formance Panel R - Values and Weights			
Panel Thickness	Standard EPS	Graphite EPS	Weight/m^2(kg)
115mm	R2.8	R3.3	15.2
150mm (Formance ready only)	R3.8	N/A	15.2
165mm	R4.3	R4.9	16.2
175mm	R4.3	R4.9	23.2
215mm	R5.7	R6.6	17.2
225mm	R5.7	R6.6	24.2
265mm	R7.2	R8.3	18.2
315mm	R8.6	R9.9	19.2

11. Supporting Information About Intended Use (Optional)

Any supporting information for section 4.

Further details regarding the intended use of the product can be found in the Formance Design Guide V2.0 January 2024, the Formance Design Guide V1.1, 26 June 2018 (until 30th June 2024) and Formance Ready™ Guide V1.0, 26 June 2018.

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

Any supporting information for section 6.

Product Certificate

Formance Structural Insulated Panel (SIP) Building System

Certificate no: CMNZ70079
Version: 1
Original issue date: 15 July 2020
Version date: 17 April 2024

Further details regarding the conditions and limitations use of the product can be found in the Formance Design Guide V2.0 January 2024, the Formance Design Guide V1.1, 26 June 2018 (up until 30th June 2024) and the Formance Ready™ Guide V1.0, 26 June 2018.

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.