BEAL Product Technical Statement

PTS 2524

EXPIRY DATE: 31 July 2027

The 16mm Magnum Board Shiplap Weatherboard System



Product Description

1.1 The 16mm Magnum Board Shiplap Weatherboard System from Health Based Building is comprised of vapour-permeable, mineral sheet based weatherboards for use over timber framing or light gauge steel framing which is protected by either a rigid or pliable building underlay, subject to wind speeds of up to and including 55m/sec. The system is designed to provide durable, non-combustible, exterior cladding options, when over-coated with acrylic or silicate paint products.

1.2 The system consists of MAGNUM BOARD weatherboards attached to treated timber battens using specified nail fixings, or direct fixed over a rigid air barrier (e.g. the MAGNUM BOARD Rigid Air Barrier system) or a proprietary pliable building membrane**.

1.3 The Magnum Board Shiplap Weatherboard system (MBSWB system) can be either installed over cavity battens or direct fix to the framing, in accordance with the technical literature.

1.4 The MBSWB system is to be installed by trade persons, under the supervision of a suitably experienced and skilled tradesperson, as described in the certificate-holder's technical literature.

Compliance With The National Construction Code

2.1 In the opinion of BEAL*, the 16mm Magnum Board Shiplap Weatherboard System (MBSWB) system, when designed, installed and used in accordance with the statements and conditions of this Certificate, will meet the following provisions of NCC Volume Two of the Building Code of Australia:

Part H1 Structure
The MBSWB meets the requirements of Performance H1P1 Structural reliability and resistance (1), (2)(a), (b), (c), (d), (l), (n) and (o), (3). (Refer para 8.1)

Part H2 Damp and weatherproofing
The MBSWB meets the requirements of Performance H2P1. (Refer para 8.2)

Part H6 Energy Efficiency
The MBSWB meets the requirements of Performance H6P1 & P2. (Refer para 8.3)

2.2 The 16mm Magnum Board Shiplap Weatherboard System has been appraised as a Compliance Solution in terms of compliance with NCC Volumes One and Two. Evidence of how compliance is achieved is described under Sources of Information. (Page 3)

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Scope and Limitations

3.1 The MBSWB system has been appraised for use as a 'Shiplap Weatherboard' for the protection of timber or LGS framing that are of sound construction and in compliance with NCC Volume two;
3.2 The MBSWB system is suited to the construction of Class 1a and Class 10a buildings at a height of no greater than 10m, at least 1 metre from any boundary, in non-cyclonic Wind Zones 1 to 3;
3.3 The MAGNUM Board Shiplap Weatherboard system shall be installed by suitably experienced trade persons, under the supervision of a suitably experienced and skilled trades person, within the scope and limitations described in the certificate-holder's technical literature.

Limitations

3.4 The MBSWB is required to be designed and installed according to the details and drawings described in the technical literature.

Technical Literature

4.1 The MBSWB system Technical literature, including MB16210TG Magnum Board Vertical Shiplap Details, and MB16210TG Magnum Board Horizontal Shiplap Details, must be read in conjunction with this Product Technical Statement. All aspects of design, use, installation and maintenance contained within the Technical literature and scope of this Product Technical Statement must be followed.
4.2 For a copy of this technical literature and any subsequent updates, please visit the web site: www.healthbasedbuilding.com

Technical Details

5.1 Materials and accessories supplied by Health Based Building Ltd. are as follows:

- **MAGNUM Weatherboards**

MAGNUM Board 16mm Weatherboards are comprised of a white mineral board material with a number of attributes including vapour permeability. The nominal size of the 16mm weatherboard is 3.0m x 210mm.

- **MAGNUM Weatherboard Fixings**

The Magnum Board Shiplap Weatherboard system can be either installed over cavity battens or direct fix to the framing, in accordance with the technical literature. The MBSWB system is to be installed using the specified fixings described in the relevant technical literature.

5.2 **Handling and Storage**

All products must be stored inside, in a well ventilated area, up off concrete floors, kept dry, out of direct sunlight and away from freezing conditions.

Advice for designers

General

6.1 The MAGNUM Board Shiplap Weatherboard system is an exterior cladding system incorporating vapour-permeable mineral board for use on new and existing timber or light gauge steel framing where the building is situated in non-cyclonic Wind Zones 1 to 3.
6.2 Before an installation can be carried out, it is essential that a survey of the framing be carried out to ensure compliance with AS1684 for timber framing or the NASH Standard for light gauge steel framing, and that the stud and dwang centres meet the requirements set out in the MBSWB Technical Manual.

6.3 Penetrations

The installation of the MBSWB system is reliant on all openings and penetrations being constructed in accordance with the requirements set out in the Technical Manual.

Part H1 Structure -

6.4 The MBSWB system, when used in accordance with this Product Technical Statement and subjected to normal conditions of environment and use, is expected to tolerate wind speeds of up to and including 55m/sec (approx.1.8kPa).

Part H2 Damp and weatherproofing -

6.5 The installation of the MBSWB system is reliant on the correct application using specified nail fixings, either over cavity battens or direct fixed over a rigid air barrier (e.g. the MAGNUM BOARD Rigid Air Barrier system) or a proprietary pliable building membrane, to meet the requirements of this performance clause.
6.6 The design of details not included within the Technical Manual are subject to specific design and are outside the scope of this Product Technical Statement Certificate.

Part H6 Energy Efficiency -

6.7 The MBSWB system, when designed and installed in accordance with this Product Technical Statement will contribute to a building meeting the performance of Part H6 Energy Efficiency.

Installation Requirements

Installation Skill Requirement

7.1 Installation of the MBSWB system, including accessories and the application of an acrylic or silicate paint product, represented in the technical literature, shall be installed by trade persons, under the supervision of a suitably experienced and skilled tradesperson, as described in the Appraisal-holder's technical literature.

Preparation of Timber Framing

7.2 The moisture content of any new timber framing must be no higher than 18%.

Application of an acrylic or silicate paint product

7.3 Note that the application of an acrylic or silicate paint product system must not be undertaken when the substrate temperature is below 4°C or if it is likely to drop below 4°C during drying/curing time.

Health and Safety

7.4 The safe use and handling of the MAGNUM Board Shiplap Weatherboards and the acrylic or silicate paint products are described in the Technical Literature. The

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products must be used in conjunction with the relevant material safety data sheet for each product.

Warranty Requirement

7.5 No warranty will be made available to the building owner until the relevant Site Checklists, available using the QR Code, have been completed and forwarded to the certificate-holder or their agent.

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Basis of this Product Technical Statement

BEAL have made use of their "compliance verification procedure" to demonstrate compliance with the relevant clauses of Volume 2 of the NCC, based on a risk analysis procedure. The following is a summary of the technical investigations carried out:

Compliance with Part H1 Structure

8.1 The following testing was carried out to assess the structural performances and characteristics of the MBSWB:

- Suitability of the specified fixings and their layout to suit the intended scope of use wind speeds

Compliance with Part H2 Damp & Weatherproofing

8.2 The following testing was carried out:

- The tape adhesion to the Magnum Board before and after accelerated age conditioning,
- Weathertightness based on testing based on AS/ NZS4284:2008 Testing Building Facades, to suit.

A contribution to compliance with Part H6 Energy Efficiency

8.3 The use of tapes to seal the joins and exterior perimeter of the MBSWB ensures a high degree of airtightness which is a basic contribution to energy efficiency by design.

Other Investigations

8.4 The installation of the MBSWB was also evaluated (including site visits) in practical building situations assessing the following;

- Ease of installation
- Potential risks of non-performance when being
- Constructed on site
- Any external factors that could affect the quality of the constructed product.

Technical Literature Assessment

8.5 The Technical Literature has been examined by BEAL and found to be satisfactory.

Quality

8.6 The quality of materials, components and accessories supplied by Health Based Building Ltd. is managed through the use of a 'Product Quality Plan', which is reviewed and audited on an annual basis.

8.7 Building owners are responsible for any maintenance of the MBSWB should it arise in accordance with the manufacturer's instructions and this Product Technical Statement.

Sources of Information

- The Building Code of Australia
- Volume 2 of the National Construction Code (NCC) including section A5.2 Evidence of suitability
- AS/NZS1170.0:2002 and AS/NZS1170.2:2021- Part 2: Wind actions
- ICC-AC386 – Acceptance Criteria for Fibre-reinforced Magnesium-oxide Based Sheets.
- NASH Standard: Residential and Low-rise Steel Framing Part 1: Design Criteria
- Test data and technical literature supplied by the Magnum Board manufacturer in the USA. This includes the test report from ICC-Evaluation Service (equivalent to BRANZ) using the ICC-AC386 - 'ACCEPTANCE CRITERIA FOR FIBER-REINFORCED MAGNESIUM-OXIDE-BASED SHEETS' originally issued 1 July 2015 and updated since.
- Letter concerning 50-year durability from Thompson Global Partners LLC dated 27 August 2018.
- Fixing capacity testing in wind speeds of up to and including 55m/sec was also peer reviewed by a Chartered Structural Engineer.
- The absence of asbestos as a hazardous material, is referred to in the test data supplied by the manufacturer.
- Test Reports from BEAL:
  TR140616-1 Adhesion of the protective coating
  TR140717-1 Weathertightness (based on 9mm thick weatherboards being indicative)
  TR220610-2 MOE & MOR—face side up
  TR220616-2 Nail pull-through
  TR220718-2 MOE & MOR - face side down
- Fixing capacity testing was also peer reviewed by a Chartered Structural Engineer.

Concluding statement

9.1 In the opinion of BEAL, the MBSWB is fit for purpose and will comply with Volume 2 of the NCC to the extent specified provided that it is used, designed, installed and maintained in accordance with the manufacturer's instructions and this Product Technical Statement Certificate.

9.2 This Product Technical Statement Certificate is issued only to Health Based Building Ltd., and is valid until further notification, subject to the conditions of this Product Technical Statement.

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Conditions of this Product Technical Statement

10.1. This Product Technical Statement:
a) Relates only to the MBSWB system as described herein;
b) Must be read, considered and used in full, together with the current version of the Technical Literature
c) Does not address any legislation, regulations, codes or standards, not specifically named herein;
d) Is copyright of BEAL

10.2 The Product Technical Statement certificate-holder continues to meet the quality requirements of the Health Based Building Ltd. Product Quality Plan and has the plan audited and this Product Technical Statement certificate revalidated by BEAL on an annual basis.

10.3 Health Based Building Ltd. shall notify BEAL and obtain approval of any changes of the product specification or quality assurance prior to product being marketed including any trade literature, web site info or the like.

10.4 BEAL makes no representation as to:
a) The nature of individual examples of, batches of, or individual installations of the product, including methods and workmanship;
b) The presence or absence of any patent or similar rights subsisting in the product or any other product;
c) Any guarantee or warranty offered by the Product Technical Statement Certificate holder.

10.5 BEAL's verification of the building product or system complying with one or more of the above-mentioned criteria is given on the basis that the criteria used were those that were appropriate to demonstrate compliance with the NZBC at the date of this Product Technical Statement Certificate. In the event that the criteria is withdrawn or amended at a later date, this Product Technical Statement may no longer remain valid.

10.6 Any reference in this Product Technical Statement Certificate to any other publication shall be read as a reference to the version of publication specified in this Product Technical Statement Certificate.

Authorised Signatory,



C R Prouse - Director
BEAL (Building Element Assessment Laboratory Limited)
Version 1 - 26 July 2025.

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