



*Make your space,
a healthy place.*

OUR
COMMON
FUTURE

MAGNUM[®] BOARD

18mm Flooring Underlayment Technical Literature & Installation Guide

Technical Document No. #043	
Title	Magnum [™] Board 18mm Flooring Underlay Technical Information
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INSTALLATION EQUIPMENT, FIXINGS AND ADDITIONAL COMPONENTS



HEPA extraction system with recommended cutting equipment



Quick Drive System



Mapei PU45



Simpson Strong Tie screw for timber
framing code: SSDHSD50TSA
10-gauge x 50mm
#2 Square Drive
Pre-Bore Tip
Stainless Steel 305



Simpson Strong Tie screw for
steel framing code: SSBFHSD2SA
10-gauge x 50mm
#2 Square Drive
Wing Tip
Stainless Steel 316

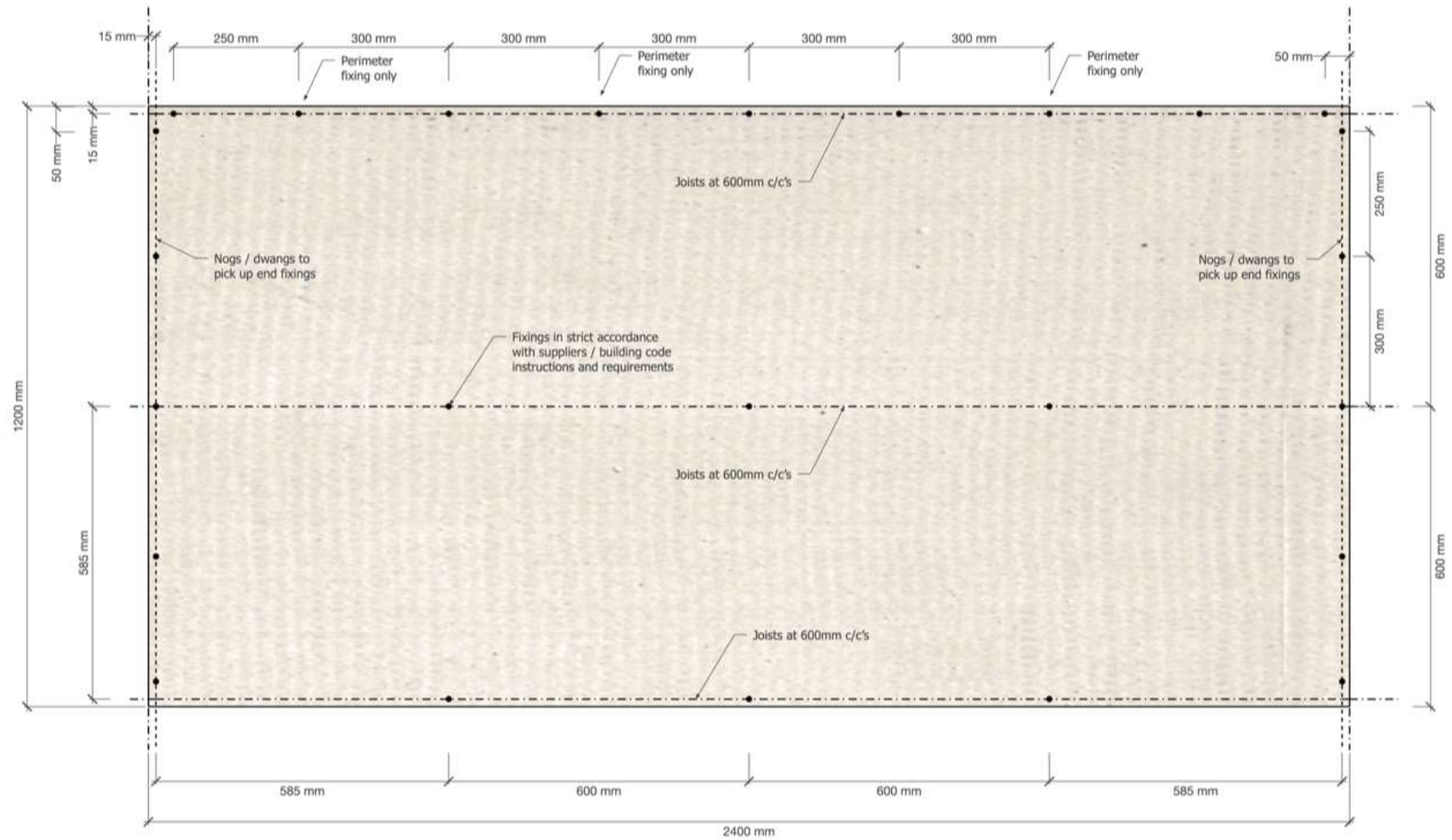
MAGNUM BOARD DETAILED FIXING INSTALLATION DIAGRAM

Fixing Pattern for 2400x1200x18mm Flooring

15mm in from perimeter edges

50mm in from corners

300mm apart along perimeter edges and joist lines



GENERAL INFORMATION

RESPONSIBILITY

It is the responsibility of the installer to inspect their workplace prior to beginning the installation of Magnum Board® to ensure installed work will meet the owner/contractor's requirements. Notify owner/contractor of any concerns prior to the start of Magnum Board® Flooring Underlay installation.

MATERIAL SAFETY, HANDLING AND STORAGE REQUIREMENTS

- Even though Magnum Board® is a non-toxic building material always wear a dust mask, safety glasses and follow MSDS Guidelines.
- Never use a circular saw blade that is inappropriate for the specific operation being undertaken.
- Never use a grinder or continuous rim diamond blade for cutting.
- Never dry sweep
- It is good construction practice to marshal or stage the materials to be installed as close to the point of installation as possible.
- Always lay Magnum Board® on a solid surface and protect it from weather and dirt prior to and during installation.
- Always protect the corners of Magnum Board® prior to and during installation.
- Do not stack other materials on top of Magnum Board®
- Magnum Board must be stored inside, in a well-ventilated area, up off concrete floors, kept dry, out of direct sunlight and away from freezing conditions.

Magnum Board® can be installed to solid timber, LVL lumber or steel joists complying with local building codes. Joist spacings must be at 600mm centres. **All framing must be straight and level with all Magnum Board edges fully supported by framing. Noggins must be installed between joists at 1.2m spacings to ensure 300mm fixing positions are in place to the perimeter of the boards.**

INSTALLATION

Purpose: to define the guidelines for cutting and installing Magnum Board® Flooring Underlay

- Magnum Board® flooring can be installed using a square or staggered layout. Layout must be staggered for tiled or vinyl finishes.
- Where waterproofing is required, ensure a 2mm gap between joins. This will be filled with Mapei PU45 sealant prior to application of waterproof membrane.
- Magnum Board can be cut and bored using handheld equipment with tungsten carbide tooling. We recommend the use of HEPA cutting and extraction systems
- Glue is not required to install Magnum Board® to wooden joists.
- A layer of glue to top of steel is required to prevent corrosion of steel coating
- Install fixings working from the central joist positions supporting each sheet to outside edges
- Always use genuine 316 stainless steel Simpson Strong Tie screws when fixing Magnum Board® sheets to joists, and 316 stainless steel fixings into bottom plate frames through Magnum Board® to joist. Use 316 Stainless steel screws for bracing brackets.
- **Ensure framing is level before installation. All edges must be fully supported by framing.**
- Ensure all fixings are located as per the fixing pattern
- Screw heads are to finish flush or slightly below the Magnum Board® surface when installed to timber or steel joists. Embedding the screw head below the recommended level will result in edge cracking. We recommend the use of torque / impact-controlled air or electric screw guns

Note: suitable protection preventing contact between copper piping and Magnum Board® Flooring Underlay is required to prevent a risk of long-term corrosion.

Period of exposure

Protection from direct exposure to weather must be in place within 60 days of installation. Contact Health Based Building for guidance as to protective coatings where longer periods of exposure are expected.



HOME of MAGNUM BOARD®

“The New Generation **GREEN** Building
Material”

“Install It for Health-Install It for Life”
Sheathing & Trim Products

Material Safety Data Sheet

MSDS No.: MBGEP-032107-

5

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Magnum Board® Brand Products

SECTION 1: COMPANY AND PRODUCT INFORMATION

Magnum Building Products
LLC 405 North Reo Street
Tampa, FL
33609 USA

Phone: 813-304-2577

Facsimile: 813-304-2578

Website: www.magnumbp.com

Email: Info@magnumbp.com

Use: Exterior: Sheathing, ceiling board, drop ceiling,
siding, cladding and trim material.

Interior: Wallboard, ceiling board, tile backer board,
underlayment and trim materials.

Structural Insulated Panels (SIPS) and Exterior
Insulated Finish Systems (EIFS)

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

<u>Ingredient</u>	<u>CAS No.</u>	<u>Hazard Class</u>
Magnesium Oxide	1309-48-4	None
Magnesium Chloride	7786-30-3	None
Cellulose	9004-34-6	None
Perlite	93763-70-3	None
Proprietary Additives	N/A	None
Fiberglass Scrim	65997-17-3	None

SECTION 3: HAZARDS IDENTIFICATION

Emergency Overview: Non-toxic, non-explosive and is not a fire hazard.

MSDS No.: MBGEP-032107-5

Magnum Board® Brand Products

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Primary Routes of Entry:

Eyes:

Dust may irritate the eyes from mechanical abrasion causing watering and redness.

Skin:

Dust may cause irritation of the skin from friction but cannot be absorbed through intact skin.

Ingestion:

Unlikely under normal conditions of use but swallowing the dust from this product may result in irritation to the mouth and gastrointestinal tract.

Inhalation:

Dust may cause irritation of the nose, throat, and airways, resulting in coughing and sneezing. Certain susceptible individuals may experience wheezing (spasms of the bronchial airways) on inhaling dust during sanding or sawing operations.

SECTION 4: FIRST AID MEASURES

EYES:

Remove contact lens. Flush with running water or saline for at least 15 minutes. Seek medical attention if redness persists or if visual changes occur.

SKIN:

Wash with mild soap and water. Contact physician if irritation persists or later develops.

INGESTION:

If ingested, dilute by drinking large amounts of water. Do not induce vomiting. Seek medical attention.

If unconscious, loosen tight clothing and lay the person on his / her side.

Give nothing by mouth to an individual who is not alert and conscious.

Seek medical attention.

INHALATION:

Remove to fresh air. If shortness of breath or wheezing develops, seek medical attention.

NOTES TO PHYSICIAN OR FIRST AID PROVIDERS:

Treat symptomatically.

MSDS No.: MBGEP-032107-5

Magnum Board® Brand Products

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SECTION 5: FIRE-FIGHTING MEASURES

Magnum™ Building Products line of “Magnum Board®” Products are non-flammable, non-explosive and noncombustible.

Fire and Explosion Hazard

Flash Point: Not applicable.

Auto-ignition: Not applicable

Extinguishing Media:

This material is noncombustible. Appropriate extinguishing media should be used for surrounding fire.

Fire Fighting:

Firefighting personnel should wear normal protective equipment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

No special precautions are necessary to pick up product that has been dropped. The following applies only to spills or releases of dust generated during cutting or sanding Magnum Board®.

Precautions:

Good housekeeping practices are necessary for cleaning up areas where dust has been produced. Take measures to either eliminate or minimize the creation of dust.

Wherever possible, practices likely to generate dust should be controlled with engineering controls such as local exhaust ventilation, dust suppression with water and containment, enclosure or covers.

Cleanup Methods:

A fine water spray may be used to suppress dust when sweeping (dry sweeping is not recommended). Vacuuming with an industrial vacuum cleaner outfitted with a high-efficiency particulate (HEPA) filter is recommended over sweeping. Waste may be disposed of by landfill in compliance with federal, provincial, state, and local requirements governing non-toxic mineral materials

Avoid using materials and products that are incompatible with this product. (Refer to section 10.)

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Magnum Board® Brand Products

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SECTION 7: HANDLING AND STORAGE

Handling and Storage Products in their intact state do not present a health hazard. The controls below apply to dust generated from the boards by cutting, drilling, routing, sawing, crushing, or otherwise abrading, and cleaning or moving sawdust.

Other Precautions:

Even though Magnum Board® has been tested and deemed nontoxic, Magnum Building Products recommends that exposure to dust be kept as low as reasonably possible. Respirable levels should not exceed those specified by OSHA and MSHA and identified in this MSDS. Exposure to respirable (fine) dust depends on a variety of factors, including activity rate (i.e. cutting rate), method of handling (i.e. electric shears), environmental conditions (i.e. weather conditions, workstation orientation) and control measures used.

Wherever possible, practices likely to generate dust should be carried out in well ventilated areas (i.e. outside). The work practices and engineering controls set out in Section 8 should be followed as precautions to reduce dust exposures.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Cutting Outdoors:

1. Magnum Building Products recommends positioning cutting station so that wind will blow dust away from user or others in working area and allow for ample dust dissipation.
2. Use one of the following methods based on the required cutting rate and jobsite conditions.

Best

- Score and snap using carbide-tipped scoring knife or utility knife (Ability to use this method depends on thickness of Magnum Board® being installed.)
- Fibercement board shears (electric or pneumatic).

Better

- Dust reducing circular saw equipped with appropriate blade and HEPA vacuum extraction.

Good (for low to moderate cutting only)

- Dust reducing circular saw with appropriate saw blade.

Always use correct tools when executing all cutting operations.

MSDS No.: MBGEP-032107-5

Magnum Board® Brand Products

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Ventilation:

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limit.

Respiratory Protection:

Dust mask is recommended.

Eye Protection:

When cutting material, dust resistant safety goggles / glasses should be worn and used in compliance with ANSI Standard Z87.1-1-1989 and applicable OSHA (i.e. 29 CFR 1910.133) standards.

Skin Protection:

Loose comfortable clothing should be worn. Magnum Building Products recommends that direct skin contact with dust and debris be avoided when possible by wearing long sleeved shirts and long trousers, a cap or hat, and gloves.

Sanding / Drilling / Other Machining:

If sanding, drilling, or other machining is conducted, Magnum Building Products recommends wear a NIOSH-approved dust mask.

Important Notes:

1. For maximum protection (lowest respirable dust production), Magnum Building Products recommends always using "Best" level cutting methods where feasible.
2. Always use a circular saw blade that is appropriate for the specific operation being undertaken.
3. Dry sweeping is not the preferred clean up method - Magnum Building Production suggests wet suppression methods or HEPA vacuum.
4. It is not recommended that a grinder or continuous rim diamond blade be used for cutting.
5. Always follow tool manufacturer's safety recommendations.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
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Appearance:

Various colors depending on application, each with varying dimensions according to product used.

Odor:

Very mild

Physical State:

Solid boards

Vapor Pressure:

Not relevant.

Specific Gravity:

Not relevant.

Flammability Limits:

Not relevant.

Boiling Point:

Not relevant

Melting Points:

Not relevant.

Flash Point:

Not relevant.

Auto-ignition Temperature:

Not relevant.

Volatility:

Not relevant.

Solubility in Water:

Not relevant.

Evaporation rate:

Not applicable.

NFPA Ratings (Scale 0 - 4)

Health = 1

Flammability = 0

Reactivity = 0

Personal Protection = E

SECTION 10: STABILITY AND REACTIVITY

Stability:

The Magnum Board products identified in section 1 are stable under ordinary conditions.

Conditions to Avoid:

Excessive dust generation without proper dust mask protection.

Materials to Avoid:

Incompatibility: Hydrofluoric acid will dissolve Magnesium Oxide and can generate Magnesium Chloride fumes.

SECTION 11: TOXICOLOGICAL INFORMATION

Magnum Board® products are nontoxic in their intact form. The following applies to dust that may be generated during cutting and sanding.

Chronic Effects:

Inhaled: Repeated and prolonged overexposures to dust may cause increased risk of bronchitis. It is possible that repeated inhalation exposure to Magnum Board® fiber dust over time may lead to inflammation of the lungs in humans. All necessary precautions should be taken to prevent inhalation of dust to prevent these problems.

SECTION 12: ECOLOGICAL INFORMATION

Because Magnesium Oxide is a naturally occurring mineral, releases that may occur into the environment are not expected to leave any hazardous material that could cause a significant adverse impact.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of material, as an inert, inorganic mineral, in conformance with federal, provincial, state, and local regulations. Magnum Board® is not an RCRA hazardous waste.

SECTION 14: TRANSPORT INFORMATION

There are no special requirements for storage and transport of Magnum Board™.

UN No: None
allocated Dangerous Goods Class:
None allocated
Hazchem Code: None allocated
Poisons Schedule: None allocated
Packing Group: Not applicable
Label: Not a DOT hazardous material.

SECTION 15: REGULATORY INFORMATION

DOT Hazard Classification: None

Placard Requirement: Not a DOT hazardous material.

CERCLA Hazardous Substance (40 CFR Part 302)

Listed substance:	No
Unlisted Substance:	No
Reportable Quantity (RQ):	None
Characteristic(s):	Not applicable
RCRA Waste Number:	Not applicable

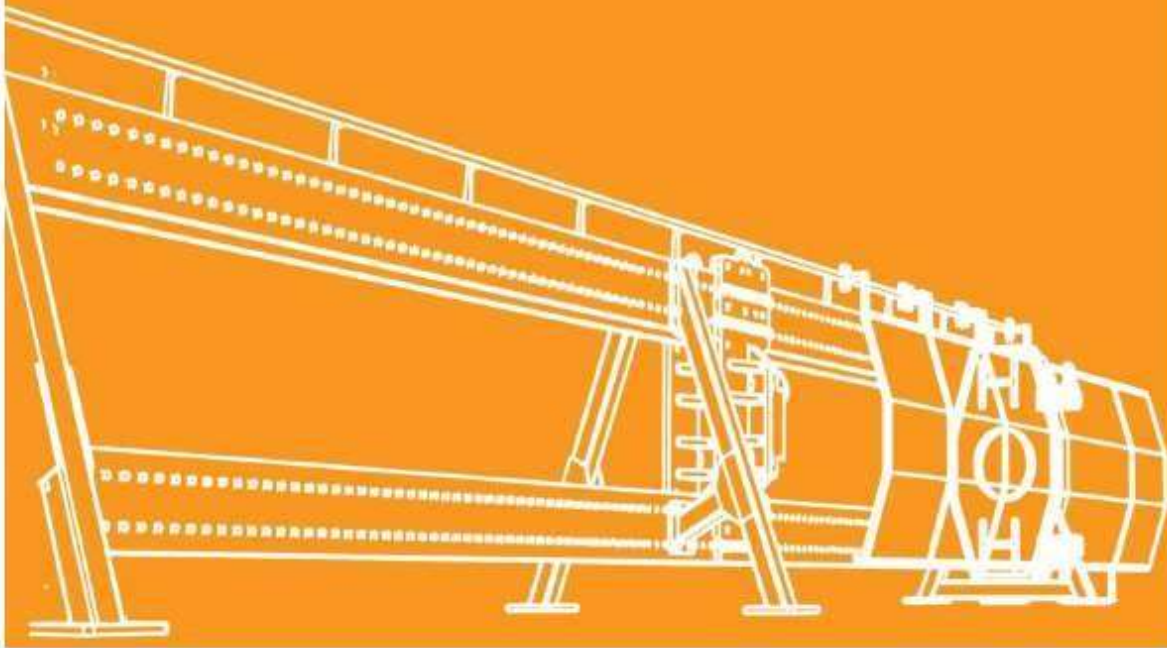
SECTION 16: OTHER INFORMATION

Preparation of Information and Disclaimer:

This form has been prepared to meet current Federal OSHA hazard communication regulations and is offered without any warranty or guarantee of any type. Magnum Building Products cannot control the use of its products, and therefore specifically disclaims liability and responsibility arising from the use, misuse and/ or alteration of its products.

The information contained in this MSDS was produced without independent scientific or medical studies analyzing the effects of Magnum Board® dust upon human health. The information contained herein is based upon scientific and other data Magnum Building Products believes is valid and reliable and provides the basis for this MSDS. The information contained herein relates only to specific materials listed in the document. It does not address the effects of Magnum Board® dust when used in combination with other materials or substances, or when used in other processes. Because conditions of use are beyond Magnum Building Products control, the company makes no representations, guarantees, or warranties, either express or implied warranties as to the fitness of the product for use, and assume no liability related to the information contained above.

Magnum Building Products requires, as a condition of use of its products, that purchasers comply with all applicable Federal, Provincial, State, and Local health and safety laws, regulations, orders, requirements, and strictly adhere to all instructions and warnings which accompany the product.



Health Based Building Limited MgO Magnum Board

Flexural Testing

Holmes Solutions

Version: (v1.1)
29 November 2017
Project: 132262.00

DISCLAIMER

This document was prepared by Holmes Solutions LP (HSLP) under contract. The information presented in this document relates to materials testing and does not address any other related or un-related issues, including but not limited to environmental durability of the product, nor applications for the tested product. It is the responsibility of the user to assess relevant performance of the product and determine suitable applications.

This document does not constitute a standard, specification, or regulation. In undertaking the testing described in this report, Holmes Solutions have exercised the degree of skill, care, and diligence normally expected of a competent testing agency. The name of specific products or manufacturers listed herein does not imply endorsement of those products or manufacturers.

Report Produced By:



Kevin Botman
TEST TECHNICIAN

Report Reviewed By:



Tim Porter
PROJECT DIRECTOR

Revision No:	Date	Revision
1.0	31 JUL 17	Draft for client comment
1.1	29 NOV 17	Final

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1 EXECUTIVE SUMMARY

Holmes Solutions LP was commissioned by Health Based Building Limited to perform flexural testing of MgO Magnum Board material.

Flexural testing was conducted generally in accordance with the principals detailed in AS/NZS 2269.1-2012 - Plywood – Structural part 1 – Determination of structural properties – Test methods. The peak load was recorded and used to calculate an equivalent pressure loading. The equivalent pressure was then analysed in accordance with Appendix B of AS/NZS1170.0 to determine an ultimate design capacity.

2 INTRODUCTION

Twelve samples of Magnum Board material were supplied to the laboratory. The samples had nominal dimensions of 700mm x 150mm 17mm. Ten test specimens for flexural testing were extracted from the samples provided. The test specimens were conditioned in the laboratory environment prior to testing.

3 TEST ESTABLISHMENT

3.1 Test Materials

All materials used for testing were supplied to the testing laboratory by the client. Holmes Solutions LP was not involved in the selection of materials or components and can provide no assurances as to the suitability or representative nature of the samples provided.

3.2 Test Location

The testing was completed in the Holmes Solutions testing facility at 7 Canterbury Street, Hornby, Christchurch, New Zealand.

3.3 Test Methodology

Flexural testing was carried out using a 4 four point bend test configuration as shown in Figure 1 with a support span of 600mm and a loading span of 200mm. The gradient of the initial straight line portion of the load deflection curve is used in the calculation of MOE and the maximum load achieved used for the determination of MOR.

3.4 Test Apparatus

Load values were captured via a PT Global S-type load cell S/N1312024 rated at 1000lb capacity. Displacement values were captured using two UniMeasure LX-PA type linear potentiometers in a dual averaging arrangement. Data capture was via a National Instruments NI USB 9162 DAQ and NI Signal Express program on Lab laptop S/N CHS027L



Figure 1: Four Point Bend Apparatus and test sample

4 RESULTS

4.1 Flexural Test

The summary of the results of the flexural test is detailed in Table 4-1 below.

Table 4-1: Flexural Test Results

Specimen Number	Peak load (N)
1	974
2	974
3	962
4	958
5	989
6	952
7	965
8	1008
9	967
10	946

5 ANALYSIS

All test results have been post analysed in accordance with AS/NZS 1170.0 Appendix B, whereby the empirical test results are analysed and a design capacity is calculated, namely;

$$R_d \leq \frac{R_{min}}{k_t}$$

Where:

R_d = Design capacity of a specific product or specific assembly

R_{min} = minimum value obtained in the test results

k_t = factor to allow for variance of structural units (as defined in Table B1 of AS/NZS 1170)

It is noted that the coefficient of variation of the structural characteristic measurement is required to consider the variations in the parent population due to variations in fabrication and material. Limited information was available on these factors and as such an assessment was made based on the variation in the recorded test results.

5.1 Design capacity

The design capacity for the tested configuration was calculated with respect to an equivalent pressure loading to cause the same maximum moment demand. The equivalent pressure was calculated as follows:

$$p_{equiv} = \frac{8M^*}{l^2} \times \frac{1}{w}$$

Where:

P_{equiv} = Equivalent pressure (kPa)

M^* = Peak bending moment (kNm)

l = Length of span (m)

w = Width of specimen (m)

The equivalent pressure was then analysed using the method described in Section 5 to derive an ultimate design capacity as follows.

Property	Value
Mean - μ	16 kPa
Standard deviation - σ	0.62
Co-efficient of variation - V_e	4%
Number of samples - n	10
Statistical variation factor - k_t	1.1
Minimum capacity - R_{min}	14 kPa
Design capacity - R_d	12 kPa



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Christchurch City Centre
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107 Hasketts Road
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POSTAL ADDRESS

PO Box 6718
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Christchurch 8142
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holmessolutions.com

PRODUCT SPECIFICATION

Product System:	Health Based Building Installation of Carpet Flooring to a Magnum Board Substrate
Project Reference:	
Site Address:	
This Specification is intended for the above listed products and all products must be installed in accordance to this product specification and the Technical Data Sheet (TDS) of the products listed herewith.	

1. PRIMER

a. **Trade Name:** [Eco Prim Grip](#)

Multi-purpose, ready-to-use bonding promoter primer or render, smoothing and levelling compounds and adhesives.

2. SMOOTHING COMPOUND

a. **Trade Name:** [Planiprep SC](#)

A high-performance fibre reinforced rapid drying skim coating compound.

3. CARPET ADHESIVE

a. **Trade Name** [Ultrabond Eco 170](#)

High initial grab and long open time adhesive, suitable for bonding textile floor coverings with all types of backing materials

4. **Magnum Board Substrate**

- a. The substrate should be free of all dust, oil, wax, paint or other surface contaminants before the commencement of the application of the primer

The information in this Specification is consistent with the information given in the Product Technical Data Sheets (TDS). If further information is required, MAPEI recommends referring to the Product TDS, or seeking advice from MAPEI NEW ZEALAND LTD.

The information given in this Specification relating to the application and use of MAPEI products is given in good faith based on MAPEI's current knowledge and experience of the product when appropriately stored, handled and applied under recommended conditions as per the information in the Product TDS. In practice, the difference in application conditions, substrates, materials, and site environments are such that no guarantee in respect of consumption or fit for a particular purpose can be concluded either from the information given in this specification, or any other written or verbal recommendations. The Applicator of the product must assess the substrate and the product's suitability for the intended application and final service provision of the product or product system.



5. Installation

- a. After sufficient preparation of the Magnum Board substrate the installation of the primer may commence with the utilisation of Eco Prim Grip
- b. Once the Eco Prim Grip has dried, the installation of one to two coats of skim coating compound may commence with the utilization of Planiprep SC.
- c. After sufficient curing of the skim coat, installation of the Vinyl can then be carried out utilising Ultrabond Eco VS90 Plus. A 1.5 x 1.5mm V notched trowel is the recommended size not withstanding a 100% contact of the adhesive bed to the Vinyl is required.

Warranty

MAPEI NEW ZEALAND LTD (MAPEI NZ LTD) provides product warranties, if the products are installed in accordance with the products Technical Data Sheet (TDS) plans, specifications, and complies with the relevant provisions of the New Zealand [building code](#).

MAPEI NZ LTD warrants that the product/s when prepared and applied in accordance with the TDS will have the properties and characteristics set out in the TDS and will retain these properties and characteristics for the duration of the listed Warranty Period.

The Applicator of a MAPEI product is not an agent or employee of MAPEI and therefore MAPEI takes no responsibility and assumes no liability for their workmanship.

The applicator of the product must assess the substrate and the product/s suitability for the intended application and final service provision of the product.

MAPEI NZ LTD warranties ***do not*** cover installation, workmanship or product mixing and preparation aspects which is the sole responsibility of the applicator who is not an officer, agent, servant, or employee of MAPEI NZ LTD.

It is the sole responsibility of the product applicator to store the product/s, prepare the substrate, prepare, mix, and apply the product/s in accordance to the product/s TDS.

Information given relating to the application and use of MAPEI products is given in good faith based on MAPEI's current knowledge and experience of its products when they are appropriately stored, handled and applied under recommended conditions according to the information in the product/s TDS.

A full list of all product warranty terms and conditions is available upon request.

Spec. Name:	Installation of Carpet Flooring to a Magnum Board Substrate	Version:	1	Release date:	21/09/2018
Compiled by:	Peter Smith	Date:	21/09/2018	Checked:	Peter Smith
					Page 2 of 3

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Spec. Name:	Installation of Carpet Flooring to a Magnum Board Substrate	Version:	1	Release date:	21/09/2018
Compiled by:	Peter Smith	Date:	21/09/2018	Checked:	Peter Smith
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PRODUCT SPECIFICATION

Product System:	Health Based Building Installation of Vinyl Flooring to a Magnum Board Substrate
Project Reference:	
Site Address:	
This Specification is intended for the above listed products and all products must be installed in accordance to this product specification and the Technical Data Sheet (TDS) of the products listed herewith.	

1. PRIMER

a. Trade Name: [Eco Prim Grip](#)

Multi-purpose, ready-to-use bonding promoter primer or render, smoothing and levelling compounds and adhesives.

2. SMOOTHING COMPOUND

a. Trade Name: [Planiprep SC](#)

A high-performance fibre reinforced rapid drying skim coating compound.

3. VINYL ADHESIVE

a. Trade Name [Ultrabond Eco VS90 Plus](#)

Hard set, highly shear resistant, wet bed dispersion adhesive, specific for PVC, rubber flooring and wall coverings on absorbent substrates.

4. Magnum Board Substrate

- a. The substrate should be free of all dust, oil, wax, paint or other surface contaminants before the commencement of the application of the primer

5. Installation

- a. After sufficient preparation of the Magnum Board substrate the installation of the primer may commence with the utilisation of Eco Prim Grip

The information in this Specification is consistent with the information given in the Product Technical Data Sheets (TDS). If further information is required, MAPEI recommends referring to the Product TDS, or seeking advice from MAPEI NEW ZEALAND LTD.

The information given in this Specification relating to the application and use of MAPEI products is given in good faith based on MAPEI's current knowledge and experience of the product when appropriately stored, handled and applied under recommended conditions as per the information in the Product TDS. In practice, the difference in application conditions, substrates, materials, and site environments are such that no guarantee in respect of consumption or fit for a particular purpose can be concluded either from the information given in this specification, or any other written or verbal recommendations. The Applicator of the product must assess the substrate and the product's suitability for the intended application and final service provision of the product or product system.



- b. Once the Eco Prim Grip has dried, the installation of one to two coats of skim coating compound may commence with the utilization of Planiprep SC.
- c. After sufficient curing of the skim coat, installation of the Vinyl can then be carried out utilising Ultrabond Eco VS90 Plus. A 1.5 x 1.5mm V notched trowel is the recommended size not withstanding a 100% contact of the adhesive bed to the Vinyl is required.

Warranty

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A full list of all product warranty terms and conditions is available upon request.

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Spec. Name:	Installation of Vinyl Flooring to a Magnum Board Substrate	Version:	1	Release date:	21/09/2018
Compiled by:	Peter Smith	Date:	21/09/2018	Checked:	Peter Smith
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PRODUCT SPECIFICATION

Product System:	Generic Specification for the Installation of Timber Floor Coverings to a Magnum Board Substrate, Health Based Building, Christchurch
Project Reference:	
Site Address:	
This Specification is intended for the above listed products and all products must be installed in accordance to this product specification and the Technical Data Sheet (TDS) of the products listed herewith.	

1. ADHESIVE

a. Trade Name: [Ultrabond Eco 995](#)

Ultrabond Eco is MAPEI's premium 100% solids, one component, moisture curing urethane adhesive for all types of wood and bamboo flooring. Ultrabond Eco can be used in a single coat application method that provides a superior bond with moisture emission control on concrete slabs. Or as a standard adhesive over other substrates not requiring a moisture barrier.

2. Installation over the Magnum Board substrate

- a. All framing must be straight and level, with all Magnum Board edges fully supported by joist framing.
- b. The substrate should be free of dust, oil, wax, paint or other surface contaminants before the adhesive is applied.
- c. Installation of the timber flooring can be carried out utilising Ultrabond Eco 995. A suitable V notched trowel as recommended by the timber manufacturer must be used, notwithstanding a 100% contact of the adhesive bed to the timber flooring.

The information in this Specification is consistent with the information given in the Product Technical Data Sheets (TDS). If further information is required, MAPEI recommends referring to the Product TDS, or seeking advice from MAPEI NEW ZEALAND LTD.

The information given in this Specification relating to the application and use of MAPEI products is given in good faith based on MAPEI's current knowledge and experience of the product when appropriately stored, handled and applied under recommended conditions as per the information in the Product TDS. In practice, the difference in application conditions, substrates, materials, and site environments are such that no guarantee in respect of consumption, or fit for a particular purpose can be concluded either from the information given in this specification, or any other written or verbal recommendations. The Applicator of the product must assess the substrate and the product's suitability for the intended application and final service provision of the product or product system.



3. Warranty

- a. MAPEI NEW ZEALAND LTD (MAPEI NZ LTD) provides product warranties, if the products are installed in accordance with the products Technical Data Sheet (TDS) plans, specifications, and complies with the relevant provisions of the New Zealand [building code](#).
- b. MAPEI NZ LTD warrants that the product/s when prepared and applied in accordance with the TDS will have the properties and characteristics set out in the TDS and will retain these properties and characteristics for the duration of the listed Warranty Period.
- c. The Applicator of a MAPEI product is not an agent or employee of MAPEI and therefore MAPEI takes no responsibility and assumes no liability for their workmanship.
- d. The applicator of the product must assess the substrate and the product/s suitability for the intended application and final service provision of the product.
- e. MAPEI NZ LTD warranties ***do not*** cover installation, workmanship or product mixing and preparation aspects which is the sole responsibility of the applicator who is not an officer, agent, servant, or employee of MAPEI NZ LTD.
- f. It is the sole responsibility of the product applicator to store the product/s, prepare the substrate, prepare, mix, and apply the product/s in accordance to the product/s TDS.
- g. Information given relating to the application and use of MAPEI products is given in good faith based on MAPEI's current knowledge and experience of its products when they are appropriately stored, handled and applied under recommended conditions according to the information in the product/s TDS.
- h. A full list of all product warranty terms and conditions is available upon request.

MAPEI NZ LTD

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Spec. Name:	Health Based Building Generic Specification for the Installation of Timber Over Magnum Board	Version:	1	Release date:	08/27/2018
Compiled by:	Peter Smith	Date:	08/27/2018	Checked:	Page 2 of 3

PRODUCT SPECIFICATION

Product System:	Specification for the Installation of Ceramic and Porcelain Tiles Magnum Board including Waterproofing – External Walls
Project Reference:	Health Based Building
Site Address:	TBA
This Specification is intended for the above-listed products and all products must be installed in accordance with this product specification and the Technical Data Sheet (TDS) of the products listed herewith.	

1. PRIMER

- a. **Trade Name:** [Eco Prim Grip](#)
Multi-purpose, ready-to-use bonding promoter primer with a very low emission of volatile organic compounds (VOC) for render, smoothing and levelling compounds and adhesives for ceramic tiles

2. WATERPROOFING

- a. **Trade Name:** [Mapelastic Smart](#)
In compliance with Section 3-1-1(B) of E3-ASI of the New Zealand Building Code. BRANZ Appraisal Certificate No. 484 (2012) Internal Waterproofing Membrane. BRANZ Appraisal Certificate No. 485 (2013) External Waterproofing Membrane.
A two component, flexible, tanking membrane.
- b. **Trade Name:** [Mapeband SA](#)
A self-adhesive tape with alkali resistant non-woven fabric for elastic waterproofing systems.
- c. **Trade Name:** [Mapenet 150](#)
An alkali resistant fiberglass mesh used in reinforcing protective waterproofing compounds, anti- fracture membranes and insulating materials.
- d. **Trade Name:** **Mapeband SA Gasket**
A self-adhesive gasket with alkali resistant non-woven fabric for elastic waterproofing systems.

3. ADHESIVE (2 Options)

- a. **Trade Name:** [Kerabond Plus & Isolastic](#)
C2TES2 class adhesive in compliance with EN 12004 Standards
A two component, highly deformable, cementitious, floor and wall adhesive with no vertical slump and extended open time.

The information in this Specification is consistent with the information given in the Product Technical Data Sheets (TDS). If further information is required, MAPEI recommends referring to the Product TDS, or seeking advice from MAPEI NEW ZEALAND LTD.

The information given in this Specification relating to the application and use of MAPEI products is given in good faith based on MAPEI's current knowledge and experience of the product when appropriately stored, handled and applied under recommended conditions as per the information in the Product TDS. In practice, the difference in application conditions, substrates, materials, and site environments are such that no guarantee in respect of consumption or fit for a particular purpose can be concluded either from the information given in this specification, or any other written or verbal recommendations. The Applicator of the product must assess the substrate and the product's suitability for the intended application and final service provision of the product or product system.



- b. Trade Name:** [Keraquick & Latex Plus](#)
C2FTS2 class adhesive in compliance with EN 12004 Standards

A rapid setting, two component, highly deformable, floor and wall, improved adhesive, with no vertical slump.

4. GROUT

- a. Trade Name:** [Ultracolor Plus](#)
CG2 class grout in compliance with EN 13888 Standards

A rapid setting and drying grout, anti-efflorescence, water repellent, mould resistant, polymer modified for joints from 2 to 20mm with excellent compressive strength. 34 colours with matching silicone.

5. SEALANT

- a. Trade Name:** [Mapesil LM](#)

A solvent free mildew resistant silicone sealant with 9 colours to match grout.

6. Deflection Criteria

- a. It is essential that the deflection criteria for both the substrate and the supporting structure or framing are met to a maximum of L over 360 under live or dead loading. As per BRANZ Good Practice Guide to Tiling Section 2.12.

7. Tolerances

- a. Maximum variation in the plane of the substrate should be no greater than +4mm in 2lm as per BRANZ Good Practice Guide to Tiling Section 2.13.

8. Magnum Board Substrates

- a. The substrate must be dry and free of all dust, paint or other surface contaminants before the commencement of the ceramic tiling.
- b. The Magnum Board must be fixed in strict accordance with the manufacturer's installation instructions and be warranted by the substrate manufacturer for its intended end use, including consideration for a rigid joint detail.
- c. Sheet joints and countersunk screw head voids must be flush filled with a suitable stopping compound.

9. Mechanical Support (if required)

- a. A mechanical support ('L' angle) designed to hold loads of up to 80kg/m², made of durable quality metal fit for the intended purpose, must be fixed horizontally at no greater than 3.0lm intervals. Refer to a structural engineer for the correct mechanical support design.

NOTE: "ABEP Flash 'N' Wrap to be applied between L Angle and the Magnum Board.

10. Installation

- a. Prime the suitably prepared Magnum board with Eco Prim Grip neat.
- b. Upon suitable curing of the Primer, installation of the waterproofing if required is then carried out using Mapelastic Smart with Mapenet 150 embedded into the body of its first coat and Mapeband or Mapeband SA at all movement junctions and Mapeband SA gaskets at all penetrations.

Spec. Name:	Ceramic and Porcelain Tiles to Magnum Board with Waterproofing - External	Version:	V 1.0	Release date:	19/10/2018
Compiled by:	Jennifer Price	Date:	19/10/2018	Checked:	Peter Smith

- c. Mapenet 150 must not be fitted over or under the Mapeband Strip or Mapeband SA.
- d. The two-coat application must have a minimum thickness of two mm.

Once the waterproofing membrane has cured installation of the stone can be carried out using Kerabond mixed 100% with Isolastic. For rapid set applications use Keraquick mixed 100% with Latex Plus.

- e. Depending on the size of the tile being used a 8mm or 10mm 'V' notched trowel is the recommended size notwithstanding a 100% contact of the adhesive bed to the tile is required. Consideration should be given to using the double spread (back-buttering) method of installation to achieve a solid adhesive bed as per BRANZ Good Practice Guide to Tiling, Section 10.11.10.

11. Grouting

- a. Upon satisfactory curing of the adhesive, grouting can be commenced using Ultracolor Plus with a minimum 2mm joint width.

12. Movement Joints

- a. In general, movement or control joints must be installed at the perimeter of all tiled areas, where the tile surface abuts another material, at changes of plane, where joints exist in the substrate and at maximum center's of 3.0 lm in each direction.
- b. Notwithstanding this discussion with structural engineers is essential to address the elements pertinent to the individual situation, ensuring the correct installation of movement and construction joints.
- c. Installation of the silicone sealant is to be carried out using Mapesil LM.

13. Warranty

- a. MAPEI NEW ZEALAND LTD (MAPEI NZ LTD) provides product warranties, if the products are installed in accordance with the products Technical Data Sheet (TDS) plans, specifications, and complies with the relevant provisions of the New Zealand [building code](#).
- b. MAPEI NZ LTD warrants that the product/s when prepared and applied in accordance with the TDS will have the properties and characteristics set out in the TDS and will retain these properties and characteristics for the duration of the listed Warranty Period.
- c. The Applicator of a MAPEI product is not an agent or employee of MAPEI and therefore MAPEI takes no responsibility and assumes no liability for their workmanship.
- d. The applicator of the product must assess the substrate and the product/s suitability for the intended application and final service provision of the product.
- e. MAPEI NZ LTD warranties **do not** cover installation, workmanship or product mixing and preparation aspects which are the sole responsibility of the applicator who is not an officer, agent, servant, or employee of MAPEI NZ LTD.
- f. It is the sole responsibility of the product applicator to store the product/s, prepare the substrate, prepare, mix, and apply the product/s in accordance with the product/s TDS.

Spec. Name:	Ceramic and Porcelain Tiles to Magnum Board with Waterproofing - External	Version:	V 1.0	Release date:	19/10/2018
Compiled by:	Jennifer Price	Date:	19/10/2018	Checked:	Peter Smith
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- g.** Information given relating to the application and use of MAPEI products is given in good faith based on MAPEI's current knowledge and experience of its products when they are appropriately stored, handled and applied under recommended conditions according to the information in the product/s TDS.

- h.** A full list of all product warranty terms and conditions is available upon request.

Spec. Name:	Ceramic and Porcelain Tiles to Magnum Board with Waterproofing - External	Version:	V 1.0	Release date:	19/10/2018
Compiled by:	Jennifer Price	Date:	19/10/2018	Checked:	Peter Smith
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PRODUCT SPECIFICATION

Product System:	Specification for the Installation of Ceramic and Porcelain Tiles to Magnum Board including Waterproofing - Internal Walls
Project Reference:	Health Based Building
Site Address:	TBA
This Specification is intended for the above-listed products and all products must be installed in accordance with this product specification and the Technical Data Sheet (TDS) of the products listed herewith.	

1. PRIMER

a. Trade Name: [Eco Prim Grip](#)

Multi-purpose, ready-to-use bonding promoter primer with a very low emission of volatile organic compounds (VOC) for render, smoothing and levelling compounds and adhesives for ceramic tiles

2. WATERPROOFING

a. Trade Name: [Mapelastic AquaDefense](#)

In compliance with Section 3-1-1(B) of E3-ASI of the New Zealand Building Code. BRANZ Appraisal Certificate No. 484 (2013) Internal Waterproofing Membrane.

A ready-to-use, ultra-fast drying, flexible, liquid waterproofing membrane for internal and external waterproofing applications.

b. Trade Name: [Mapeband SA](#)

A self-adhesive butyl tape with alkali-resistant non-woven fabric for elastic waterproofing systems for waterproofing expansion joints in interiors and exteriors, corners between adjacent walls and walls & floors and sealing of pipes and drains.

c. Trade Name: **Self-Adhesive Mapeband Gasket SA**

A self-adhesive butyl tape with alkali-resistant non-woven fabric for elastic waterproofing for the sealing of pipes and drains.

3. ADHESIVE

a. Trade Name: [Keraflex Maxi S1](#)

C2TES1 class adhesive in compliance with EN 12004 Standards

A high performance, deformable, cementitious, floor and wall adhesive, with improved slip resistance and extended open time.

The information in this Specification is consistent with the information given in the Product Technical Data Sheets (TDS). If further information is required, MAPEI recommends referring to the Product TDS, or seeking advice from MAPEI NEW ZEALAND LTD.

The information given in this Specification relating to the application and use of MAPEI products is given in good faith based on MAPEI's current knowledge and experience of the product when appropriately stored, handled and applied under recommended conditions as per the information in the Product TDS. In practice, the difference in application conditions, substrates, materials, and site environments are such that no guarantee in respect of consumption, or fit for a particular purpose can be concluded either from the information given in this specification, or any other written or verbal recommendations. The Applicator of the product must assess the substrate and the product's



4. GROUT

a. Trade Name: [Ultracolor Plus](#)

CG2WA class grout in compliance with EN 13888 Standards.

A rapid setting and drying grout, anti-efflorescence, water repellent, mould resistant polymer modified for joints from 2mm to 20 mm with excellent compressive strength. 34 colours with matching silicone.

5. SILICONE SEALANT

a. Trade Name: [Mapesil AC](#)

A solvent free, mildew resistant, silicone sealant with 34 colours to match grout.

b. Trade Name: [Primer FD](#)

One-component silicone resin based neutral primer for priming joints prior to the installation of Mapesil AC and Mapesil LM

6. Deflection Criteria

- a. It is essential that the deflection criteria for both the substrate and the supporting structure or framing are met to a maximum of L over 360 under live or dead loading. As per BRANZ Good Practice Guide to Tiling Section 2.12.

7. Tolerances

- a. Maximum variation in the plane of the substrate should be no greater than + 4mm in 2 lm as per BRANZ Good Practice Guide to Tiling Section 2.13.

8. Magnum Board Substrates

- a. The substrate must be dry and free of all dust, paint or other surface contaminants before the commencement of the ceramic tiling.
- b. The Magnum Board must be fixed in strict accordance with the manufacturer's installation instructions and be warranted by the substrate manufacturer for its intended end use, including consideration for a rigid joint detail.
- c. Sheet joints and countersunk screw head voids must be flush filled with a suitable stopping compound.

9. Mechanical Support (if required)

- a. A mechanical support ('L' angle) designed to hold loads of up to 80kg/m², made of durable quality metal fit for the intended purpose, must be fixed horizontally at no greater than 3.0lm intervals. Refer to a structural engineer for the correct mechanical support design.

NOTE: "ABEP Flash 'N' Wrap to be applied between L Angle and the Magnum Board.

10. Installation

- a. Prime the suitably prepared Magnum board with Eco Prim Grip neat.
- b. Upon suitable curing of the Primer, installation of the waterproofing can be carried out using Mapelastac AquaDefense in conjunction with Mapeband SA and Mapeband SA Gaskets.
- c. Mapeband SA Gaskets should be applied to all drains, inlets and outlets.

Spec. Name:	Ceramic and Porcelain to Magnum Board – Internal Walls	Version:	V 1.0	Release date:	19/10/2018
Compiled by:	Jennifer Price	Date:	19/10/2018	Checked:	Peter Smith
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- d. Mapelastic AquaDefense must be applied to a minimum finished dry film thickness of 0.8mm.
- e. Once the waterproofing has cured the installation of the tiles can be carried out using Keraflex Mxi S1.

- f. Depending on the size of the tile being used a 8mm or 10mm 'V' notched trowel is the recommended size notwithstanding a 100% contact of the adhesive bed to the ceramic tile is required. Consideration should be given to using the double spread (back-buttering) method of installation to achieve a solid adhesive bed as per BRANZ Good Practice Guide to Tiling, Section 10.11.10.

11. Grouting

- a. Upon satisfactory curing of the adhesive, grouting can be commenced using Ultracolor Plus at a minimum joint width of 2mm

12. Movement Joints

- a. In general, movement or control joints must be installed at the perimeter of all tiled areas, where the tile surface abuts another material, at changes of plane, where joints exist in the substrate and at maximum centres of 3.0 lm in each direction.

- b. Notwithstanding this discussion with structural engineers is essential to address the elements pertinent to the individual situation, ensuring the correct installation of movement and construction joints.

- c. Installation is to be carried out using Mapesil AC Silicone Sealant. Joints are to be primed using Primer F.D. before the installation of Mapesil

13. Warranty

- a. MAPEI NEW ZEALAND LTD (MAPEI NZ LTD) provides product warranties, if the products are installed in accordance with the products Technical Data Sheet (TDS) plans, specifications, and complies with the relevant provisions of the New Zealand [building code](#).

- b. MAPEI NZ LTD warrants that the product/s when prepared and applied in accordance with the TDS will have the properties and characteristics set out in the TDS and will retain these properties and characteristics for the duration of the listed Warranty Period.

- c. The Applicator of a MAPEI product is not an agent or employee of MAPEI and therefore MAPEI takes no responsibility and assumes no liability for their workmanship.

- d. The applicator of the product must assess the substrate and the product/s suitability for the intended application and final service provision of the product.

- e. MAPEI NZ LTD warranties ***do not*** cover installation, workmanship or product mixing and preparation aspects which are the sole responsibility of the applicator who is not an officer, agent, servant, or employee of MAPEI NZ LTD.

- f. It is the sole responsibility of the product applicator to store the product/s, prepare the substrate, prepare, mix, and apply the product/s in accordance with the product/s TDS.

- g. Information given relating to the application and use of MAPEI products is given in good faith based on MAPEI's current knowledge and experience of its products when they are appropriately stored, handled and applied under recommended conditions according to the information in the product/s TDS.

- h. A full list of all product warranty terms and conditions is available upon request.

Spec. Name:	Ceramic and Porcelain to Magnum Board – Internal Walls	Version:	V 1.0	Release date:	19/10/2018
Compiled by:	Jennifer Price	Date:	19/10/2018	Checked:	Peter Smith

PRODUCT SPECIFICATION

Product System:	Specification for the Installation of Schist Stone Cladding to Magnum Board including Waterproofing - Internal Walls
Project Reference:	Health Based Building
Site Address:	TBA
This Specification is intended for the above-listed products and all products must be installed in accordance with this product specification and the Technical Data Sheet (TDS) of the products listed herewith.	

1. PRIMER

a. Trade Name: [Eco Prim Grip](#)

Multi-purpose, ready-to-use bonding promoter primer with a very low emission of volatile organic compounds (VOC) for render, smoothing and levelling compounds and adhesives for ceramic tiles

2. WATERPROOFING

a. Trade Name: [Mapelastic AquaDefense](#)

In compliance with Section 3-1-1(B) of E3-ASI of the New Zealand Building Code.

BRANZ Appraisal Certificate No. 484 (2013) Internal Waterproofing Membrane.

A ready-to-use, ultra-fast drying, flexible, liquid waterproofing membrane for internal and external waterproofing applications.

b. Trade Name: [Mapeband SA](#)

A self-adhesive butyl tape with alkali-resistant non-woven fabric for elastic waterproofing systems for waterproofing expansion joints in interiors and exteriors, corners between adjacent walls and walls & floors and sealing of pipes and drains.

c. Trade Name: **Self-Adhesive Mapeband Gasket SA**

A self-adhesive butyl tape with alkali-resistant non-woven fabric for elastic waterproofing for the sealing of pipes and drains.

3. ADHESIVE (2 Options)

a. Trade Name: [Kerabond Plus & Isolastic](#)

C2TES2 class adhesive in compliance with EN 12004 Standards

A two component, highly deformable, cementitious, floor and wall adhesive with no vertical slump and extended open time.

b. Trade Name: [Keraquick & Latex Plus](#)

C2FTS2 class adhesive in compliance with EN 12004 Standards

The information in this Specification is consistent with the information given in the Product Technical Data Sheets (TDS). If further information is required, MAPEI recommends referring to the Product TDS, or seeking advice from MAPEI NEW ZEALAND LTD.

The information given in this Specification relating to the application and use of MAPEI products is given in good faith based on MAPEI's current knowledge and experience of the product when appropriately stored, handled and applied under recommended conditions as per the information in the Product TDS. In practice, the difference in application conditions, substrates, materials, and site environments are such that no guarantee in respect of consumption or fit for a particular purpose can be concluded either from the information given in this specification, or any other written or verbal recommendations. The Applicator of the product must assess the substrate and the product's



A rapid setting, two component, highly deformable, floor and wall, improved adhesive, with no vertical slump.

4. GROUT

a. Trade Name: [Ultracolor Plus](#)

CG2 class grout in compliance with EN 13888 Standards

A rapid setting and drying grout, anti-efflorescence, water repellent, mould resistant, polymer modified for joints from 2 to 20mm with excellent compressive strength. 34 colours with matching silicone.

5. SEALANT

a. Trade Name: [Mapesil LM](#)

A solvent free mildew resistant silicone sealant with 9 colours to match grout.

6. Deflection Criteria

- a. It is essential that the deflection criteria for both the substrate and the supporting structure or framing are met to a maximum of L over 360 under live or dead loading. As per BRANZ Good Practice Guide to Tiling Section 2.12.

7. Tolerances

- a. Maximum variation in the plane of the substrate should be no greater than + 4mm in 2 lm as per BRANZ Good Practice Guide to Tiling Section 2.13.

8. Magnum Board Substrates

- a. The substrate must be dry and free of all dust, paint or other surface contaminants before the commencement of the ceramic tiling.
- b. The Magnum Board must be fixed in strict accordance with the manufacturer's installation instructions and be warranted by the substrate manufacturer for its intended end use, including consideration for a rigid joint detail.
- c. Sheet joints and countersunk screw head voids must be flush filled with a suitable stopping compound.

9. Mechanical Support (if required)

- a. A mechanical support ('L' angle) designed to hold loads of up to 80kg/m², made of durable quality metal fit for the intended purpose, must be fixed horizontally at no greater than 3.0lm intervals. Refer to a structural engineer for the correct mechanical support design.

NOTE: "ABEP Flash 'N' Wrap to be applied between L Angle and the Magnum Board.

10. Installation

- a. Prime the suitably prepared Magnum board with Eco Prim Grip neat.
- a. Upon suitable curing of the Primer, installation of the waterproofing can be carried out using Mapelastastic AquaDefense in conjunction with Mapeband SA and Mapeband SA Gaskets.
- b. Mapeband SA Gaskets should be applied to all drains, inlets and outlets.
- c. Mapelastastic AquaDefense must be applied to a minimum finished dry film thickness of 0.8mm.

- e. Once the waterproofing has cured the installation of the stone can be carried out using Kerabond mixed 100% with Isolastic. For rapid set applications use Keraquick mixed 100% with Latex Plus.
- f. Depending on the size of the stone being used a 8mm or 10mm 'V' notched trowel is the recommended size notwithstanding a 100% contact of the adhesive bed to the ceramic tile is required. Consideration should be given to using the double spread (back-buttering) method of installation to achieve a solid adhesive bed as per BRANZ Good Practice Guide to Tiling, Section 10.11.10.

11. Grouting

- a. Upon satisfactory curing of the adhesive, grouting can be commenced using Ultracolor Plus with a minimum 2mm joint width.

12. Movement Joints

- a. In general, movement or control joints must be installed at the perimeter of all tiled areas, where the tile surface abuts another material, at changes of plane, where joints exist in the substrate and at maximum centres of 3.0 m in each direction.
- b. Notwithstanding this discussion with structural engineers is essential to address the elements pertinent to the individual situation, ensuring the correct installation of movement and construction joints.
- c. Installation of the silicone sealant is to be carried out using Mapesil LM.

13. Warranty

- a. MAPEI NEW ZEALAND LTD (MAPEI NZ LTD) provides product warranties, if the products are installed in accordance with the products Technical Data Sheet (TDS) plans, specifications, and complies with the relevant provisions of the New Zealand [building code](#).
- b. MAPEI NZ LTD warrants that the product/s when prepared and applied in accordance with the TDS will have the properties and characteristics set out in the TDS and will retain these properties and characteristics for the duration of the listed Warranty Period.
- c. The Applicator of a MAPEI product is not an agent or employee of MAPEI and therefore MAPEI takes no responsibility and assumes no liability for their workmanship.
- d. The applicator of the product must assess the substrate and the product/s suitability for the intended application and final service provision of the product.
- e. MAPEI NZ LTD warranties **do not** cover installation, workmanship or product mixing and preparation aspects which are the sole responsibility of the applicator who is not an officer, agent, servant, or employee of MAPEI NZ LTD.
- f. It is the sole responsibility of the product applicator to store the product/s, prepare the substrate, prepare, mix, and apply the product/s in accordance with the product/s TDS.
- g. Information given relating to the application and use of MAPEI products is given in good faith based on MAPEI's current knowledge and experience of its products when they are appropriately stored, handled and applied under recommended conditions according to the information in the product/s TDS.
- h. A full list of all product warranty terms and conditions is available upon request.

PRODUCT SPECIFICATION

Product System:	Specification for the Installation of Schist Stone Cladding to Magnum Board including Waterproofing – External Walls
Project Reference:	Health Based Building
Site Address:	TBA
This Specification is intended for the above-listed products and all products must be installed in accordance with this product specification and the Technical Data Sheet (TDS) of the products listed herewith.	

1. PRIMER

- a. **Trade Name:** [Eco Prim Grip](#)
Multi-purpose, ready-to-use bonding promoter primer with a very low emission of volatile organic compounds (VOC) for render, smoothing and levelling compounds and adhesives for ceramic tiles

2. WATERPROOFING

- a. **Trade Name:** [Mapelastic Smart](#)
In compliance with Section 3-1-1(B) of E3-ASI of the New Zealand Building Code. BRANZ Appraisal Certificate No. 484 (2012) Internal Waterproofing Membrane. BRANZ Appraisal Certificate No. 485 (2013) External Waterproofing Membrane.
A two component, flexible, tanking membrane.
- b. **Trade Name:** [Mapeband SA](#)
A self-adhesive tape with alkali resistant non-woven fabric for elastic waterproofing systems.
- c. **Trade Name:** [Mapenet 150](#)
An alkali resistant fibreglass mesh used in reinforcing protective waterproofing compounds, anti- fracture membranes and insulating materials.
- d. **Trade Name:** **Mapeband SA Gasket**
A self-adhesive gasket with alkali resistant non-woven fabric for elastic waterproofing systems.

3. ADHESIVE (2 Options)

- a. **Trade Name:** [Kerabond Plus & Isolastic](#)
C2TES2 class adhesive in compliance with EN 12004 Standards
A two component, highly deformable, cementitious, floor and wall adhesive with no vertical slump and extended open time.

The information in this Specification is consistent with the information given in the Product Technical Data Sheets (TDS). If further information is required, MAPEI recommends referring to the Product TDS, or seeking advice from MAPEI NEW ZEALAND LTD.

The information given in this Specification relating to the application and use of MAPEI products is given in good faith based on MAPEI's current knowledge and experience of the product when appropriately stored, handled and applied under recommended conditions as per the information in the Product TDS. In practice, the difference in application conditions, substrates, materials, and site environments are such that no guarantee in respect of consumption or fit for a particular purpose can be concluded either from the information given in this specification, or any other written or verbal recommendations. The Applicator of the product must assess the substrate and the product's suitability for the intended application and final service provision of the product or product system.



- b. Trade Name:** [Keraquick & Latex Plus](#)
C2FTS2 class adhesive in compliance with EN 12004 Standards

A rapid setting, two component, highly deformable, floor and wall, improved adhesive, with no vertical slump.

4. GROUT

- a. Trade Name:** [Ultracolor Plus](#)
CG2 class grout in compliance with EN 13888 Standards

A rapid setting and drying grout, anti-efflorescence, water repellent, mould resistant, polymer modified for joints from 2 to 20mm with excellent compressive strength. 34 colours with matching silicone.

5. SEALANT

- a. Trade Name:** [Mapesil LM](#)

A solvent free mildew resistant silicone sealant with 9 colours to match grout.

6. Deflection Criteria

- a. It is essential that the deflection criteria for both the substrate and the supporting structure or framing are met to a maximum of L over 360 under live or dead loading. As per BRANZ Good Practice Guide to Tiling Section 2.12.

7. Tolerances

- a. Maximum variation in the plane of the substrate should be no greater than + 4mm in 2 lm as per BRANZ Good Practice Guide to Tiling Section 2.13.

8. Magnum Board Substrates

- a. The substrate must be dry and free of all dust, paint or other surface contaminants before the commencement of the ceramic tiling.
- b. The Magnum Board must be fixed in strict accordance with the manufacturer's installation instructions and be warranted by the substrate manufacturer for its intended end use, including consideration for a rigid joint detail.
- c. Sheet joints and countersunk screw head voids must be flush filled with a suitable stopping compound.

9. Mechanical Support (if required)

- a. A mechanical support ('L' angle) designed to hold loads of up to 80kg/m², made of durable quality metal fit for the intended purpose, must be fixed horizontally at no greater than 3.0lm intervals. Refer to a structural engineer for the correct mechanical support design.

NOTE: "ABEP Flash 'N' Wrap to be applied between L Angle and the Magnum Board.

10. Installation

- a. Prime the suitably prepared Magnum board with Eco Prim Grip neat.
- b. Upon suitable curing of the Primer, installation of the waterproofing if required is then carried out using Mapelastc Smart with Mapenet 150 embedded into the body of its first coat and Mapeband or Mapeband SA at all movement junctions and Mapeband SA gaskets at all

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penetrations.

- c. Mapenet 150 must not be fitted over or under the Mapeband Strip or Mapeband SA.
- d. The two-coat application must have a minimum thickness of two mm.

Once the waterproofing membrane has cured installation of the stone can be carried out using Kerabond mixed 100% with Isolastic. For rapid set applications use Keraquick mixed 100% with Latex Plus.

- e. Depending on the size of the stone being used a 8mm or 10mm 'V' notched trowel is the recommended size notwithstanding a 100% contact of the adhesive bed to the ceramic tile is required. Consideration should be given to using the double spread (back-buttering) method of installation to achieve a solid adhesive bed as per BRANZ Good Practice Guide to Tiling, Section 10.11.10.

11. Grouting

- a. Upon satisfactory curing of the adhesive, grouting can be commenced using Ultracolor Plus with a minimum 2mm joint width.

12. Movement Joints

- a. In general, movement or control joints must be installed at the perimeter of all tiled areas, where the tile surface abuts another material, at changes of plane, where joints exist in the substrate and at maximum centres of 3.0 lm in each direction.
- b. Notwithstanding this discussion with structural engineers is essential to address the elements pertinent to the individual situation, ensuring the correct installation of movement and construction joints.
- c. Installation of the silicone sealant is to be carried out using Mapesil LM.

13. Warranty

- a. MAPEI NEW ZEALAND LTD (MAPEI NZ LTD) provides product warranties, if the products are installed in accordance with the products Technical Data Sheet (TDS) plans, specifications, and complies with the relevant provisions of the New Zealand [building code](#).
- b. MAPEI NZ LTD warrants that the product/s when prepared and applied in accordance with the TDS will have the properties and characteristics set out in the TDS and will retain these properties and characteristics for the duration of the listed Warranty Period.
- c. The Applicator of a MAPEI product is not an agent or employee of MAPEI and therefore MAPEI takes no responsibility and assumes no liability for their workmanship.
- d. The applicator of the product must assess the substrate and the product/s suitability for the intended application and final service provision of the product.
- e. MAPEI NZ LTD warranties **do not** cover installation, workmanship or product mixing and preparation aspects which are the sole responsibility of the applicator who is not an officer, agent, servant, or employee of MAPEI NZ LTD.
- f. It is the sole responsibility of the product applicator to store the product/s, prepare the

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substrate, prepare, mix, and apply the product/s in accordance with the product/s TDS.

- g.** Information given relating to the application and use of MAPEI products is given in good faith based on MAPEI's current knowledge and experience of its products when they are appropriately stored, handled and applied under recommended conditions according to the information in the product/s TDS.

- h.** A full list of all product warranty terms and conditions is available upon request.

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PRODUCT SPECIFICATION

Product System:	Specification for the Installation of Schist Stone Cladding to Magnum Board – External Walls
Project Reference:	Health Based Building
Site Address:	TBA
This Specification is intended for the above-listed products and all products must be installed in accordance with this product specification and the Technical Data Sheet (TDS) of the products listed herewith.	

1. PRIMER

- a. **Trade Name:** [Eco Prim Grip](#)
Multi-purpose, ready-to-use bonding promoter primer with a very low emission of volatile organic compounds (VOC) for render, smoothing and levelling compounds and adhesives for ceramic tiles

2. ADHESIVE (2 Options)

- a. **Trade Name:** [Kerabond Plus & Isolastic](#)
C2TES2 class adhesive in compliance with EN 12004 Standards
A two component, highly deformable, cementitious, floor and wall adhesive with no vertical slump and extended open time.
- b. **Trade Name:** [Keraquick & Latex Plus](#)
C2FTS2 class adhesive in compliance with EN 12004 Standards
A rapid setting, two component, highly deformable, floor and wall, improved adhesive, with no vertical slump.

3. GROUT

- a. **Trade Name:** [Ultracolor Plus](#)
CG2 class grout in compliance with EN 13888 Standards
A rapid setting and drying grout, anti-efflorescence, water repellent, mould resistant, polymer modified for joints from 2 to 20mm with excellent compressive strength. 34 colours with matching silicone.

4. SEALANT

- a. **Trade Name:** [Mapesil LM](#)
A solvent free mildew resistant silicone sealant with 9 colours to match grout.

The information in this Specification is consistent with the information given in the Product Technical Data Sheets (TDS). If further information is required, MAPEI recommends referring to the Product TDS, or seeking advice from MAPEI NEW ZEALAND LTD.

The information given in this Specification relating to the application and use of MAPEI products is given in good faith based on MAPEI's current knowledge and experience of the product when appropriately stored, handled and applied under recommended conditions as per the information in the Product TDS. In practice, the difference in application conditions, substrates, materials, and site environments are such that no guarantee in respect of consumption or fit for a particular purpose can be concluded either from the information given in this specification, or any other written or verbal recommendations. The Applicator of the product must assess the substrate and the product's suitability for the intended application and final service provision of the product or product system.



5. Deflection Criteria

- a. It is essential that the deflection criteria for both the substrate and the supporting structure or framing are met to a maximum of L over 360 under live or dead loading. As per BRANZ Good Practice Guide to Tiling Section 2.12.

6. Tolerances

- a. Maximum variation in the plane of the substrate should be no greater than + 4mm in 2 lm as per BRANZ Good Practice Guide to Tiling Section 2.13.

7. Magnum Board Substrates

- a. The substrate must be dry and free of all dust, paint or other surface contaminants before the commencement of the ceramic tiling.
- b. The Magnum Board must be fixed in strict accordance with the manufacturer's installation instructions and be warranted by the substrate manufacturer for its intended end use, including consideration for a rigid joint detail.
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8. Mechanical Support (if required)

- a. A mechanical support ('L' angle) designed to hold loads of up to 80kg/m², made of durable quality metal fit for the intended purpose, must be fixed horizontally at no greater than 3.0lm intervals. Refer to a structural engineer for the correct mechanical support design.

NOTE: "ABEP Flash 'N' Wrap to be applied between L Angle and the Magnum Board.

9. Installation

- a. Prime the suitably prepared Magnum board with Eco Prim Grip neat.
- b. Upon suitable curing of the Primer, installation of the stone can be carried out using Kerabond mixed 100% with Isolastic. For rapid set applications use Keraquick mixed 100% with Latex Plus.
- c. Depending on the size of the stone being used a 8mm or 10mm 'V' notched trowel is the recommended size notwithstanding a 100% contact of the adhesive bed to the ceramic tile is required. Consideration should be given to using the double spread (back-buttering) method of installation to achieve a solid adhesive bed as per BRANZ Good Practice Guide to Tiling, Section 10.11.10.

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- b. Notwithstanding this discussion with structural engineers is essential to address the elements pertinent to the individual situation, ensuring the correct installation of movement and construction joints.

c. Installation of the silicone sealant is to be carried out using Mapesil LM.

12. Warranty

- a. MAPEI NEW ZEALAND LTD (MAPEI NZ LTD) provides product warranties, if the products are installed in accordance with the products Technical Data Sheet (TDS) plans, specifications, and complies with the relevant provisions of the New Zealand [building code](#).
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- d. The applicator of the product must assess the substrate and the product/s suitability for the intended application and final service provision of the product.
- e. MAPEI NZ LTD warranties ***do not*** cover installation, workmanship or product mixing and preparation aspects which are the sole responsibility of the applicator who is not an officer, agent, servant, or employee of MAPEI NZ LTD.
- f. It is the sole responsibility of the product applicator to store the product/s, prepare the substrate, prepare, mix, and apply the product/s in accordance with the product/s TDS.
- g. Information given relating to the application and use of MAPEI products is given in good faith based on MAPEI's current knowledge and experience of its products when they are appropriately stored, handled and applied under recommended conditions according to the information in the product/s TDS.
- h. A full list of all product warranty terms and conditions is available upon request.