

Two-component, high-flexibility cementitious mortar (crack-bridging capacity >2mm) for waterproofing

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Level of assurance needed to demonstrate NZ Building Code Compliance

Supporting documentation should include technical information by manufacturer and either an independent assessment or reference to an industry-based scheme



Mapei confirms that this minimum level of assurance has been met or exceeded by the following:

BRANZ Appraisal

[484 \(2018\)](#), [485 \(2018\)](#)

Technical Statement

Product Description

Two-component mortar mixed to obtain a plastic consistency water dispersion that may be applied by brush, roller or sprayed with a worm screw rendering machine on both horizontal and vertical surfaces at a thickness of approximately 2mm

Hardens into a flexible, waterproof layer resistant to the penetration of aggressive substances present in the atmosphere and soluble salts present in seawater or in the ground

Excellent bonding properties and resistance to the deteriorating effect of UV rays, ensuring that structures protected and waterproofed have a long service life

WHERE TO USE

For waterproofing, to protect concrete structures, renders with hairline cracks and cementitious surfaces subjected to vibrations that may suffer from cracking

Some application examples

- Flexible protection layer of structures subject to minor deformation under load
- Protection of structures which may come into contact with sea water
- Waterproofing hydraulic channels, bathrooms, plasterboard, etc.

Scope of use

Mapelastic Smart is a two-part liquid applied waterproofing membrane for use under ceramic or stone tile finishes in internal wet areas and on external decks, balconies and swimming pools. It is also used for waterproofing hydraulic channels, faces of dams and basins. Waterproofing plasterboard, render or cementitious surfaces, lightweight cement blocks and H3.2 treated plywood. Flexible protection layer of new concrete structures or repaired structures subject to minor deformation under load. Protection of cementitious renders or concrete with cracks due to shrinkage, minor movement caused by thermal gradients or dynamic stresses due to the passage of vehicles, against infiltration of water and aggressive elements from the atmosphere. Protection of concrete pillars and joists and road and railway against the penetration of carbon dioxide. Protection of concrete surfaces which may come into contact with sea water, de-icing salts, such as sodium or calcium chloride, and sulphates.

New Zealand Building Code (NZBC)

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

- **Clause B2 Durability:** Performance B2.3.1, B2.3.2
- **Clause E2 External moisture:** Performance E2.3.1, E2.3.2, E2.3.6
- **Clause F2 Hazardous building materials:** Performance F2.3.1

Evidence

The product meets the requirements set out in the following documents, or relevant parts of cited standards within the documents:

Mapelastic Smart External Waterproofing Membrane, if designed, used, installed and maintained in accordance with the statements and conditions of this Appraisal, will meet the following provisions of the NZBC: Clause B2 DURABILITY: Performance B2.3.1 (b) 15 years and B2.3.2. Mapelastic and Mapelastic Smart External Waterproofing Membranes meet these requirements. See Paragraph 9.1. Clause E2 EXTERNAL MOISTURE: Performance E2.3.1 and E2.3.2. Decks and balconies incorporating Mapelastic and Mapelastic Smart External Waterproofing Membranes meet these requirements. See Paragraphs 12.1 – 12.9. Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. Mapelastic and Mapelastic Smart External Waterproofing Membranes meet this requirement and will not present a health hazard to people. This is an Alternative Solution in terms of New Zealand Building Code compliance.



masterspec partner

Company Contact Details



Company:	Mapei Products (MBP (NZ) Ltd)
Physical Address:	88 Carbine Road Mt Wellington AUCKLAND
Postal Address:	88 Carbine Road Mt Wellington AUCKLAND
Telephone:	64 09 9211994
Fax:	64 09 9211993
Email:	enquiries@mbpltd.co.nz
Website:	www.mbpltd.co.nz

Supporting Evidence

The product has and can make available the following additional evidence to support the above statements:



BRANZ Appraisal
[484 \(2018\)](#), [485 \(2018\)](#)

Product Criteria

Design requirements

Waterproofing hydraulic channels, faces of dams and basins. Waterproofing bathrooms, showers, balconies, terraces, swimming pools etc. before laying ceramic tiles. Waterproofing plasterboard, render or cementitious surfaces, lightweight cement blocks and H3.2 treated plywood. Flexible protection layer of new concrete structures or repaired structures subject to minor deformation under load. Protection of cementitious renders or concrete with cracks due to shrinkage, minor movement caused by thermal gradients or dynamic stresses due to the passage of vehicles, against infiltration of water and aggressive elements from the atmosphere. Protection of concrete pillars and joists and road and railway against the penetration of carbon dioxide. Protection of concrete surfaces which may come into contact with sea water, de-icing salts, such as sodium or calcium chloride, and sulphates.

Installation requirements

Slowly add component A (powder) to component B (liquid) while stirring with a low-speed mechanical mixer to avoid too much air entering the mix. . Carefully mix Mapelastc Smart for a few minutes, making sure that no powder mixed remains stuck to the sides or the bottom of the container. Keep stirring until a perfectly homogenous mix is obtained. Do not prepare the mix by hand. Mapelastc Smart must be applied in at least two coats by trowel or with a roller within 60 minutes of it being mixed with a final thickness of at least 2 mm. When used for waterproofing terraces, balconies, basins and swimming pools, and for protecting substrates with hairline cracks, we recommend to embed Mapenet 150 alkali-resistant glass fibre mesh in the first layer of fresh Mapelastc Smart. After the mesh has been laid, finish the surface with a flat trowel and apply a second layer of Mapelastc Smart after the first has set (after 4-5 hours).

Maintenance requirements

No maintenance of the membranes will be required provided significant substrate movement does not occur and the tile finish remains intact. Regular checks must be made of the tiling to ensure it is sound and will not allow moisture to penetrate. Any cracks or damage must be repaired immediately by repairing the tiling and any grout or sealant. In the event of damage to the membranes, the tiling must be removed and the membrane repaired by removing the damaged portion and applying a patch as for new work. Drainage outlets must be maintained to operate effectively, and tile finishes must be kept clean. Cleaning materials that may affect polymer based membranes must not be used.

Company Product Information

Quality Assurance



ISO 9001 (Quality Management)

Relationships

International Standards Organisation ISO 14001

EMAS IT 000019



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