



**SPECIFY WITH  
CONFIDENCE**

**BRANZ Appraisals**

**Technical Assessments of  
products for building and  
construction**

**BRANZ  
APPRAISAL  
CERTIFICATE  
No. 496 (2005)**

**MPT  
FIBRECLAD  
PLASTER  
SYSTEM**

**Mineral Plaster Technologies  
Limited**

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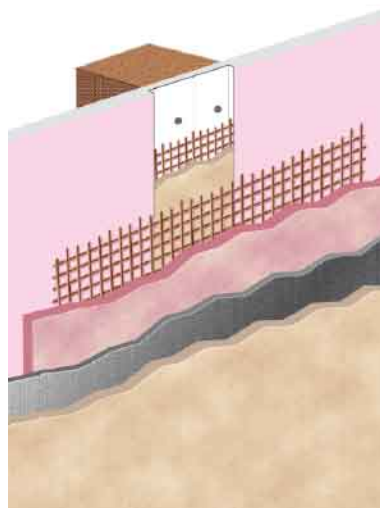
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## Product

1.1 MPT Fibreclad is a jointing and exterior plaster system for use as a finishing system for Monotek® Sheet - Cavity Construction.

1.2 The system consists of a fibreglass mesh reinforced jointing plaster, followed by a 1.0 - 5.0 mm thick levelling plaster with 400 mm wide fibreglass mesh reinforcing over sheet joints, followed by a 1 - 3 mm thick finishing plaster. The plaster system is finished with an acrylic exterior paint system.



## Scope

2.1 MPT Fibreclad has been appraised for use as a jointing and exterior plaster system for Monotek® Sheet - Cavity Construction on buildings within the following scope:

- the scope limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1 and,
- constructed with timber framing complying with the NZBC; and,
- with a risk score of 0-20, calculated in accordance with NZBC Acceptable Solution E2/AS1, Table 2; and,
- situated in NZS 3604 Building Wind Zones up to, and including 'Very High'.

2.2 MPT Fibreclad has also been appraised for use as a jointing and exterior plaster system for Monotek® Sheet - Cavity Construction on buildings subject to specific design up to an ultimate limit state (ULS) wind pressure of 2500 Pa; and,

- constructed with timber framing complying with the NZBC; and,
- within the scope limitations of BRANZ Appraisal Certificate No. 466 (2005) Monotek® Sheet - Cavity Construction.

2.3 Monotek® Sheet - Cavity Construction must be used, designed and installed as described in BRANZ Appraisal Certificate No. 466 (2005) and the Monotek® Sheet - Cavity Construction Technical Literature.

2.4 Installation of components and accessories supplied by Mineral Plaster Technologies Limited must be carried out only by Mineral Plaster Technologies Limited approved applicators.

## Building Regulations

### New Zealand Building Code (NZBC)

3.1 In the opinion of BRANZ, the MPT Fibreclad Plaster System if designed, used, installed and maintained in accordance with the statements and conditions of this Certificate, will meet or contribute to meeting the following provisions of the NZBC:

**Clause B2 DURABILITY:** Performance B2.3.1 (b), 15 years and B2.3.1 (c), 5 years. MPT Fibreclad meets these requirements. See Paragraphs 10.1 and 10.2.

**Clause E2 EXTERNAL MOISTURE:** Performance E2.3.2. MPT Fibreclad when used to finish Monotek® Sheet - Cavity Construction meets this requirement. See Paragraphs 8.1-8.3 and 13.1 and 13.2.

**Clause F2 HAZARDOUS BUILDING MATERIALS:** Performance F2.3.1. MPT Fibreclad meets this requirement and will not present a health hazard to people.

3.2 This Certificate appraises an **Acceptable Solution** in terms of New Zealand Building Code Compliance. MPT Fibreclad meets the requirements of NZBC Acceptable Solution E2/AS1, Paragraph 9.7.10.2. MPT Fibreclad has been appraised for use as a jointing and exterior plaster system for Monotek® Sheet - Cavity Construction, which is an **Alternative Solution** in terms of New Zealand Building Code Compliance.

## Technical Specification

4.1 System components and accessories supplied by Mineral Plaster Technologies Limited for MPT Fibreclad are:

### Primers

- *Sealer coat* is a colourless, water-based primer. It is used to seal the face of the Monotek® sheets and sheet joints prior to plastering. Sealer coat is supplied in 10 litre tins.

### Plasters

- *Bondcoat Jointing Plaster* is a Portland cement-based adhesive render comprising Silica sand and mineral additives. It is trowel applied to the joints of the Monotek® sheets and is used as the bedding compound for both layers of joint reinforcing mesh. Fibrecoat jointing plaster is supplied in 25 kg bags.
- *Skimcoat* is a Portland cement-based plaster comprising Silica sand and mineral additives. It is trowel or pump applied as a levelling coat in a 1.0 - 5.0 mm layer. Skimcoat is supplied in 25 kg bags.
- *Adobecoat, Floatcoat, Spongecoat, Scratchcoat Medium and Scratchcoat Coarse* are Portland cement-based finishing plasters comprising Silica sand, hydrated lime and mineral additives. The plasters are trowel or pump applied as finishing coats and are worked during curing to achieve the required finish. The plasters are supplied in 25 kg bags.

### Accessories

- Reinforcing mesh - alkali resistant fibreglass mesh with a nominal mesh size of 4.0 mm square and an approximate weight of 150 g/m<sup>2</sup>. The mesh is supplied in rolls 75 mm and 400 mm wide.

4.2 Accessories supplied by the approved applicator for MPT Fibreclad are:

- Waterproof membrane tapes - tapes covered by a valid BRANZ Appraisal Certificate for use as waterproofing membranes over tops of plastered balustrades, fixing blocks and the like.
- Flexible sealant - sealant complying with NZBC Acceptable Solution E2/AS1, or sealant covered by a valid BRANZ Appraisal Certificate for use as a weather sealing sealant for exterior use.

### Paint System Specification

4.3 Dulux Acratex Elastomeric 201 is a ready-to-use, tintable, acrylic exterior paint system for application over finishing plasters. It is supplied in a variety of pail sizes, and may be brush, roller or spray applied. The paint colour selected must have a light reflectance value (LRV) of 40% minimum regardless of gloss value.

## Handling and Storage

5.1 Handling and storage of all materials supplied by Mineral Plaster Technologies Limited or the approved applicator, whether on or off site, is under the control of Mineral Plaster Technologies Limited approved applicators. Dry storage must be provided on site for the fibreglass mesh and bags and pails of plaster mix. uPVC flashings and profiles must be protected from direct sunlight and physical damage, and should be stored flat and under cover.

5.2 Plaster must be used within the designated shelf life from the date of manufacture.

## Technical Literature

6.1 Refer to the Appraisals listing on the BRANZ website for details of the current Technical Literature for Monotek® Sheet - Cavity Construction and MPT Fibreclad. The Technical Literature must be read in conjunction with this Certificate. All aspects of design, use, installation and maintenance contained in the Technical Literature and within the scope of this Certificate must be followed.

## Design Information

### Fibre Cement Substrates

#### Monotek® Sheet - Cavity Construction

7.1 Monotek® Sheet - Cavity Construction must be designed and installed in accordance with BRANZ Appraisal Certificate No. 466 (2005) and the Monotek® Sheet - Cavity Construction Technical Literature.

### General

8.1 Timber wall framing and cavity battens must have a moisture content of 20% or less at the time of the commencement of the MPT Fibreclad system.

8.2 At ground level the bottom edge of the MPT Fibreclad system must be kept clear of paved surfaces, for example footpaths, by a minimum of 100 mm and unpaved surfaces by 175 mm in accordance with NZBC Acceptable Solution E2/AS1, Table 18.

8.3 At balcony, deck or roof/wall junctions, the bottom edge of the MPT Fibreclad system must be kept clear of any adjacent surface, or above the top surface of any adjacent roof flashing by a minimum of 35 mm in accordance with NZBC Acceptable Solution E2/AS1, Paragraph 9.1.3.6.

### Control Joints

9.1 Control joints in the MPT Fibreclad system must be constructed in accordance with the Monotek® Sheet - Cavity Construction Technical Literature, and be provided as follows:

- Vertical control joints - at maximum 5.4 m centres, or where the cladding system abuts different cladding types.
- Horizontal control joints - at maximum 5.4 m centres and at inter-storey floor levels.

### Durability

10.1 MPT Fibreclad meets the performance requirements of NZBC Clause B2.3.1 (b), 15 years for the jointing and plaster system, and the performance requirements of NZBC Clause B2.3.1 (c), 5 years for the exterior paint system.

## Serviceable Life

10.2 MPT Fibreclad installations are expected to have a serviceable life of at least 15 years provided the paint finish system is maintained in accordance with this Certificate.

## Maintenance

11.1 Regular cleaning (at least annually) of the MPT Fibreclad Plaster System is recommended to remove grime, dirt and organic growth, to maximise the life and appearance of the coating. Grime may be removed by brushing with a soft brush, warm water and detergent.

11.2 Annual inspections must be made to ensure that all aspects of the plaster system remain in a sound and weatherproof condition. Any damaged areas or areas showing signs of deterioration which would allow water ingress, must be repaired immediately. Sealant, paint coatings or the plaster system must be repaired in accordance with the instructions of Mineral Plaster Technologies Limited. Any damage to the substrate must be repaired and the advice of James Hardie New Zealand Limited must be sought.

11.3 Recoating of the paint system will be necessary throughout the life of the plaster system. The interval between recoats depends on the paint colour, orientation and quality of the application, and will be at approximately 8-10 yearly intervals in accordance with the instructions of Mineral Plaster Technologies Limited.

11.4 Minimum ground clearances as set out in this Certificate must be maintained at all times.

*(Note: Failure to adhere to the minimum ground clearances given in this Certificate and the Technical Literature will adversely affect the long term durability of MPT Fibreclad.)*

## Control of External Fire Spread

12.1 The MPT Fibreclad plaster system has a performance level A in accordance with NZBC C/AS1 Part 7, Table 7.5. Monotek® Sheet - Cavity Construction when finished with MPT Fibreclad is suitable for use as an external wall cladding system on buildings in all Purpose Groups, at any distance from the boundary.

## External Moisture

13.1 The MPT Fibreclad Plaster System, when installed and maintained in accordance with this Certificate and the Technical Literature will meet code compliance with NZBC Clause E2.3.2.

13.2 The detailing of junctions between the MPT Fibreclad Plaster System and external joinery, other wall penetrations, e.g. meter boxes, and other cladding and roofing junctions, are the responsibility of James Hardie New Zealand Limited for compliance with the NZBC. These details have not been assessed as part of this Appraisal but are covered by the Monotek® Sheet - Cavity Construction Certificate.

## Installation Information

### Installation Skill Level Requirements

14.1 Installation and finishing of the MPT Fibreclad Plaster System must be completed by trained applicators, approved by Mineral Plaster Technologies Limited.

## System Installation

### MPT Fibreclad Plaster System

15.1 The MPT Fibreclad Plaster System must be installed in accordance with the Technical Literature.

15.2 The MPT Fibreclad Plaster System must only be applied when the air and substrate temperature is within the range of +5°C to +30°C.

### Inspections

15.3 The Technical Literature must be referred to during the inspection of MPT Fibreclad installations by building consent authorities and territorial authorities.

### Finishing

15.4 The paint manufacturers' instructions must be followed at all times for application of the paint finish. The plaster must be completely dry before commencing painting.

## Health and Safety

16.1 Safe use and handling procedures for the components that make up the MPT Fibreclad system are provided in the relevant manufacturer's Technical Literature.

## Basis of Appraisal

The following is a summary of the technical investigations carried out:

### Tests

17.1 The following testing has been completed by BRANZ:

- MPT Fibreclad has been tested to BRANZ EM 4 over Monotek® sheet.
- BRANZ expert opinion on NZBC E2 code compliance for Monotek® Sheet - Cavity Construction was based on testing and evaluation of all details within the scope of the Monotek® Sheet - Cavity Construction Certificate and as stated within this Certificate. Monotek® Sheet - Cavity Construction was tested to E2/VM1. The testing assessed the performance of the foundation detail, window head, jamb and sill details, meter box head, jamb and sill details, vertical and horizontal control joints, internal and external corners and balustrade to wall junction with a plastered cap. In addition to the weathertightness test, the details contained within the Monotek® Sheet - Cavity Construction Technical Literature have been reviewed, and an opinion has been given by BRANZ technical experts that the system will meet the performance levels of Acceptable Solution E2/AS1 for drained cavity claddings.

### Other Investigations

18.1 A durability opinion has been given by BRANZ technical experts.

18.2 Site visits have been carried out by BRANZ to assess the practicability of installation, and to examine completed installations.

18.3 The Technical Literature for MPT Fibreclad has been examined by BRANZ and found to be satisfactory.

## Quality

19.1 The manufacture of the MPT Fibreclad plasters has been examined by BRANZ, including methods adopted for quality control. Details regarding the quality and composition of the components and accessories used with the system were obtained by BRANZ and found to be satisfactory.

19.2 The quality system of Mineral Plaster Technologies Limited has been assessed and registered as meeting the requirements of the Telarc Q-Based Code by Telarc Limited, Registration Number 807.

19.3 Quality on site is the responsibility of the Mineral Plaster Technologies Limited approved applicator.

19.4 Designers are responsible for the building design, and building contractors are responsible for the quality of installation of framing systems and joinery, building wraps, flashing tapes, airseals, joinery head flashings, cavity battens, Monotek® sheets etc in accordance with the instructions of James Hardie New Zealand Limited.

19.5 Building owners are responsible for the maintenance of MPT Fibreclad in accordance with the instructions of Mineral Plaster Technologies Limited.

## Sources of Information

- NZS 3604: 1999 Timber framed buildings.
- BRANZ Evaluation Method No. 4 (2005) Test procedure for coating and jointing systems for flush finished fibre cement sheet cladding, June 2005.
- BRANZ Appraisal Certificate No. 466 (2005) issued 15 August 2005, Monotek® Sheet - Cavity Construction.
- Compliance Document for New Zealand Building Code External Moisture Clause E2, Department of Building and Housing, Third Edition July 2005.
- New Zealand Building Code Handbook and Approved Documents, Building Industry Authority, 1992.
- The Building Regulations 1992, up to, and including October 2004 Amendment.



**In the opinion of BRANZ, MPT Fibreclad Plaster System is fit for purpose and will comply with the Building Code to the extent specified in this Certificate provided it is used, designed, installed and maintained as set out in this Certificate.**

**The Appraisal Certificate is issued only to the Certificate Holder, Mineral Plaster Technologies Limited, and is valid until further notice, subject to the Conditions of Certification.**

## Conditions of Certification

1. This Certificate:
  - a) relates only to the product as described herein;
  - b) must be read, considered and used in full together with the technical literature;
  - c) does not address any Legislation, Regulations, Codes or Standards, not specifically named herein;
  - d) is copyright of BRANZ.
2. The Certificate Holder:
  - a) continues to have the product reviewed by BRANZ;
  - b) shall notify BRANZ of any changes in product specification or quality assurance measures prior to the product being marketed;
  - c) abides by the BRANZ Appraisals Services Terms and Conditions.
3. The product and the manufacture are maintained at or above the standards, levels and quality assessed and found satisfactory by BRANZ.
4. BRANZ 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 Certificate Holder.
5. Any reference in this Certificate to any other publication shall be read as a reference to the version of the publication specified in this Certificate.

For BRANZ

P Robertson  
Chief Executive

Date of issue: 17 February 2006