

## MapeGrid B 250

### Building Product Information Requirements Compliance Statement

Date: 22/11/2023 (version 1)

Product identifier: **MapeGrid B 250**

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#### **Product Description**

MapeGrid B 250 is a primed alkali resistant bi-directional basalt fibre mesh used in combination with Planitop HDM Restauro (two component, fibre reinforced natural hydraulic lime (NHL) and eco pozzolan based mortar) for structural strengthening of stone, brick, and tuff masonry structures.

MapeGrid B 250 is part of Mapei FRG system, a complete range of composite materials that uses an inorganic matrix to provide excellent ductility and load distribution throughout the masonry structure. This type of system offers several important advantages when used on buildings of historical or artistic interest. The use of MapeGrid B 250 in particular allows for better distribution of strains caused by cyclic loads.

MapeGrid B 250 is supplied in 100cm wide by 50m long rolls packed in cardboard boxes.

Ancillary products with MapeGrid B 250 are given below.

- Planitop HDM Restauro

Please refer to the technical data sheet for areas of use, performance parameters and application procedure for this system.

Or request support at:

[www.mapei.com/nz/en/technical-and-commercial-support](http://www.mapei.com/nz/en/technical-and-commercial-support)

#### **Relevant Building Code Clauses**

MapeGrid B 250 complies with the following clauses of the New Zealand Building Code:

**B1 Structure**

**B2 Durability**

**C6 Structural Stability**

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WE SUPPLY THE FOLLOWING MAPEI GROUP BRANDS AND SYSTEMS:



**F2 Hazardous Building Materials: F2.3.1****Contributions to Compliance**

- MapeGrid B 250 has been tested with Planitop HDM Restauro for maximum tensile load, ultimate tensile stress, and ultimate tensile strain as per AC 434 by University of Naples.
- Planitop HDM Restauro is classified as an M15 type masonry mortar according to EN 998-2 European Standards and a category CS IV GP type render according to EN 998-1, in that it reaches a compressive strength of > 15 N/mm<sup>2</sup> (EN 1015-11) even though it is a mortar composed of lime and Eco-Pozzolan.
- During installation, MapeGrid B250 is sandwiched between 2 layers of Planitop HDM Restauro. Planitop HDM Restauro has a high bonding strength and once hardened forms a tough and compact layer which is impermeable to water and aggressive gases present in the atmosphere. MapeGrid B250 is a basalt fibre grid that exhibits excellent structural properties such as high tensile strength, high thermal stability, resistance to corrosion and chemical resistance.
- A Structural Design Engineer should review the application in conjunction with University of Naples Test report to confirm suitable structural properties and long-term durability for each specific application. The report is available on request.
- MapeGrid B 250 is an inert material. However, basalt fibres are harmful if inhaled, therefore proper Personal Protective Equipment should be used during application of MapeGrid B 250. Similarly, lime-based products are hazardous during application, therefore proper Personal Protective Equipment should be worn during the application. Thoroughly read the SDS for both products and follow the safety instructions they contain.
- Once Planitop HDM Restauro is cured it does not release harmful gases or substances when exposed.
- MapeGrid B 250 is embedded between 2 layers of Planitop HDM Restauro, Planitop HDM Restauro has A2-s1, d0 rating for fire as per Euro class EN 13501-1

**Scope of Use and Design Requirements**

- Designing of strengthening works and their location in the structure should be specifically undertaken by a qualified Structural Engineer.
- FRCM strengthening design on reinforced concrete structures should be undertaken in accordance with ACI 549.4R-13. However, the necessary modifications to ACI 549.4R-13 should be modified to ensure compliance with requirement of NZS 3101:2006 and NZS 1170:2002

- A qualified Structural Engineer must check and confirm the compatibility of the MapeGrid B250 + Planitop HDM Restauro with other building components in the project.

### **Conditions and Limitations of Use**

- A qualified Structural Engineer must check and confirm the compatibility of the MapeGrid B250 + Planitop HDM Restauro outside of the information given in the TDS.
- A qualified Structural Engineer should design FRCM strengthening on structures in accordance with ACI 549.4R-13. or an equivalent acceptable Design Standard.
- MapeGrid B250 + Planitop HDM Restauro should only be applied by MBP (NZ) Ltd approved applicators who have been trained for application of the Mapei FRCM System.

### **Supporting Documentation**

The following additional documentation supports the above statements:

#### **MapeGrid B250 + Planitop HDM Restauro - Technical Data Sheet**

<https://www.mapei.com/nz/en/products-and-solutions/products/detail/mapegrid-b-250>

#### **MapeGrid B250 + Planitop HDM Restauro –Test Report**

Test Certificate from University of Naples to be made available on request.

### **Contact Details**

#### **Manufacture location**

Dalla Batta Group SRL  
VIA Trentino, 28-30 Z.I  
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#### **Importer NZ address for Service**

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**Warnings and Bans**

MapeGrid B 250 is not subject to a warning or ban under section 26 of the Building Act 2004.

**Version History**

<b>Version number</b>	<b>Written by</b>	<b>Reviewed by</b>	<b>Date issued</b>	<b>Changes from previous version</b>
V1 24/11/2023	PM	PT	15/03/2024	New document