

Mapelastic WP

Advanced Waterproofing and Vapor Retarder Membrane



DESCRIPTION

Mapelastic® WP is a premixed, liquid-rubber vapor retarder and quick-drying waterproofing membrane for installation under manufactured stone veneer units and thin brick. *Mapelastic WP* provides a thin, continuous barrier to protect substrates and building wall assemblies from water damage. *Mapelastic WP* dries after about 30 to 50 minutes and is then ready to receive any MAPEI polymer-modified mortar meeting or exceeding the ANSI A118.4 or A118.15 standard. *Mapelastic WP* itself exceeds ANSI A118.10 and A118.12 standards.

FEATURES AND BENEFITS

- Quick-drying
- Apply with roller or airless spray equipment
- Bonds to a wide range of surfaces; convenient, user-friendly and versatile
- Freeze/thaw-resistant
- Nonflammable
- No odor
- Vapor semi-impermeable

INDUSTRY STANDARDS AND APPROVALS

- ANSI: Exceeds the A118.10 standard for waterproofing membranes and A118.12 standard for crack-isolation membranes
- ASTM: Rated per E96 Procedure A (Desiccant Method) and E96 Procedure B (Water Method) – see the “Product Performance Properties” chart below

WHERE TO USE

- Adhered veneer units such as manufactured and natural stone veneer or thin brick may be installed to the membrane using polymer-modified mortars meeting ANSI A118.4 or A118.15, when going over poured concrete wall, cement backerboard units (CBUs), concrete masonry units (CMUs), stucco basecoat or exterior rated mortar render coats
- Residential/commercial interior and exterior installations
- Above-grade walls when placed over suitable substrates

LIMITATIONS

- Do not use where excessive substrate moisture and/or where negative hydrostatic pressure exists.
- Do not allow direct contact with solvent-based materials.
- Do not expose *Mapelastic WP* directly to sun or weather for more than 7 days for direct-adhered manufactured stone veneer and thin-brick installations.
- Always consult with a design professional to determine proper placement in a wall assembly. Follow all local building codes.
- Do not use below grade.
- Not for water immersion
- Do not apply on wet substrates.
- Do not apply to CMUs that contains dry block or any water-repellant additive.
- Not all wall assemblies are suitable for direct bonding of manufactured stone veneer units to *Mapelastic WP* (for example, gypsum sheathing, plywood and OSB).

SUITABLE SUBSTRATES

- CBUs
- CMUs
- Poured concrete walls
- Stucco basecoat
- Exterior-rated mortar render coats
- Exterior-grade glass mat gypsum sheathing*
- Exterior-grade plywood*
- OSB*

Consult MAPEI's Technical Services Department for installation recommendations regarding substrates and conditions not listed.

** Consult the panel manufacturer for specific installation recommendations and to verify compatibility for intended use.*

SURFACE PREPARATION

- Substrate and ambient temperatures must be 45°F to 95°F (7°C to 35°C) during and at least 24 hours after application.

- Ensure that all wall assemblies are dried and that the top of walls are protected from water intrusion before installing *Mapelastic WP*. All substrates must be clean, dry and free of frost.
- Fill all cracks and gaps in corners and coves that are greater than 1/32" (1 mm) with an appropriate filler material. Force material into cracks and finish smooth with a straight-edge trowel. Let dry.

Concrete masonry units

- CMU joints should be struck full and flush, and mortar must be allowed to cure for at least 3 days before application of the *Mapelastic WP* system. The maximum moisture content of a CMU wall must be 5.5% or lower. Use test method ASTM D4263 (Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method) or confirm with the general contractor that the wall is adequately dry to accept *Mapelastic WP*.

Concrete

- Remove any loose aggregate and repair spalled areas or other deficiencies in the concrete with a suitable MAPEI repair mortar, such as *Planitop® 330 Fast*. Allow concrete to cure for at least 7 days. Concrete substrates should have a concrete surface profile (CSP) of #2 per the International Concrete Repair Institute (ICRI).

Cement backerboard

- Remove laitance and dust following the manufacturer's recommendations before applying *Mapelastic WP*.

Exterior-grade glass mat gypsum sheathing, plywood and OSB

- Panel joints should be securely fastened, flush and spaced according to all of the manufacturer's requirements and industry guidelines. All sheathing joints must be filled with a flashing sealant such as MAPEI's *Mapeflex® MS 40*, extending approximately 1/2" (12 mm) on each side of the joint at a minimum thickness of 15 mils. *Mapelastic WP* can be installed over the flashing sealant once the sealant is tack-free. These sheathings will require a 1/2" (12-mm) scratch coat and metal lath to create a suitable surface to direct bond veneer units to. You cannot bond veneer units directly to these substrates. All damaged sheathing must be repaired according to the manufacturer's requirements before application.

MIXING

Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet for details.

- *Mapelastic WP* is premixed and ready to use. However, material may settle in transit and require hand-mixing before application.
- Do not dilute with any other material.
- Promptly wash tools with water after mixing.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

- MAPEI's optional *Reinforcing Fabric* may be used with *Mapelastic WP* in any of the areas shown below (see the "Optional Use of MAPEI's *Reinforcing Fabric*" section below).
- Apply *Mapelastic WP* with a 3/8" (10-mm) nap roller or using an airless spray method.
- MAPEI's *Mapeband™* cove roll also may be used with *Mapelastic WP* in any of the areas shown below (see the "Optional Use of *Mapeband* Cove Roll" section below).
- All penetrations in the *Mapelastic WP* system must be fully addressed. *Mapeflex MS 40* sealant or another suitable flashing sealant must be applied around all penetrations through the *Mapelastic WP* membrane.

The sealant may also be applied to all post-applied fasteners at the discretion of the installer or as part of the project design requirements.

Pre-treating cracks, corners and coves (floor/wall intersections)

- For expansion and control joints, see the “Installing Adhered Veneers” section below.
- Apply *Mapelastic WP* liquid 6" (15 cm) on both sides of cracks, corners and coves with a paintbrush or roller. Let dry to a light-green color.
- Apply a second coat and let dry (for 30 to 50 minutes).
- Final wet film thickness (WFT) should be 35 mils. Once dry, confirm that the dry film thickness (DFT) is at least 20 mils.

Using the airless spray method

1. Using an airless sprayer, spray a first coat over substrate.
2. Immediately after spraying, use a 3/8" (10-mm) nap roller to key the material into the substrate.
3. After keying in the material, spray a second coat over the substrate. The second coat can be applied to either a dry or wet first coat.
4. Allow to dry to light green color and dry to the touch, for 30 to 50 minutes.
5. Spray a third coat over the substrate.
6. Final WFT should be 40 to 45 mils. Once dry, confirm that the DFT is at least 20 mils.

INSTALLING ADHERED VENEERS

- When *Mapelastic WP* is dry to the touch, veneer units may be installed by the trowel method or back-butter method using a polymer-modified mortar meeting the ANSI A118.4 or A118.15 standard.
- Installations of manufactured stone veneer or thin brick must provide for movement joints at all changes in plane and over any movement joints in the substrate. Movement joints in veneer unit installations are required at perimeters, change of finishes (windows and doors or any other penetrations), and where specified by veneer manufacturer and applicable industry standards and guidelines.
- Honor all control joints and do not install veneer units directly over them. Cut veneer units to accommodate movement.

OPTIONAL USE OF MAPEI'S REINFORCING FABRIC

- Select the fabric size from the packaging chart on the Technical Data Sheet (TDS) of *Reinforcing Fabric*.
- For wall penetrations, use 6" (15-cm) wide, 38" (97-cm) wide or a combination of both.
- For large areas, the 38" (97-cm) wide roll is recommended. Cut fabric to size.

Installing over cracks, corners and wall penetrations

1. Cut all required pieces. Set aside. Pretreat cracks, corners and wall penetrations.
2. Apply *Mapelastic WP* to the area to be covered with fabric.
3. Lay pre-cut pieces of fabric into wet *Mapelastic WP*. Use a brush to press fabric into corners until liquid comes through the fabric. Work out any wrinkles or bubbles.
4. While the fabric is wet, apply additional *Mapelastic WP* over it until it is completely covered to create void-free surface. Let it dry to a light-green color.
5. Apply a second coat and let it dry.

Installing treated fabric on the main wall area

1. Apply the first coat of *Mapelastic WP* (including areas previously coated) using a 3/8" (10-mm) nap roller or airless spray equipment.
2. Place the fabric into wet liquid. Using a roller, apply pressure to the fabric, working out wrinkles or bubbles while forcing *Mapelastic WP* to come through the fabric. Overlap the seams and ends of the fabric by 2" (5 cm). While the fabric is still wet, apply additional *Mapelastic WP* over the fabric until it is completely covered, creating a void-free surface. Let it dry completely to a light-green color.
3. Apply a second coat of *Mapelastic WP* to the entire area. Let it dry.
4. Give a final inspection, looking for pinholes as well as areas not completely covered and other defects.
5. Recoat with *Mapelastic WP* as needed. Let it dry to a light-green color.

OPTIONAL USE OF MAPEBAND COVE ROLL

- MAPEI's *Mapeband* cove roll are waterproof, vapor-proof, thin, elastic, deformable, rubber-coated fabric pieces that are fully compatible with *Mapelastic AquaDefense* and provide the ultimate in "change-of-plane" waterproofing protection for coves and corners. *Mapeband* cove roll is ideal for environments requiring waterproofing but also where temperature extremes, freeze/thaw conditions, vibrations, etc., can cause waterproofing problems.
- The *Mapeband* cove roll can be used in place of MAPEI's *Reinforcing Fabric* on coves, corners and control joints. The "felt side" should face into the corner.
- For installation details, see the TDS for *Mapeband*.

CLEANUP

- Remove excess *Mapelastic WP* (while fresh) with a damp sponge, soap and warm water. Any completely dried material may be mechanically removed.

PROTECTION

- Protect containers from freezing in transit and storage.
- Provide for heated storage on site and deliver all materials at least 24 hours before work begins.

Product Performance Properties

Laboratory Tests	Results
pH	9
Viscosity	Approximately 60,000 cps
Density	1.39 g per mL
ASTM E96 Procedure A (Desiccant Method) at 73.4°F (23°C), 50% relative humidity	0.96 perms
ASTM E96 Procedure B (Water Method) at 73.4°F (23°C), 50% relative humidity	3.42 perms
Freeze/thaw stability (liquid)	Up to 5 cycles at 32°F (0°C)

Shelf Life and Product Characteristics

before mixing

Shelf life	2 years when stored in original, unopened packaging at 73°F (23°C)
Physical state	Liquid
Color	Light bluish green when wet; light green when dry
Storage	Store in a cool, dry place.

Application Properties

at 73°F (23°C) and 50% relative humidity

Flash point (Seta flash)	Nonflammable
Drying time between first and second coats	When light green and dry to the touch
Drying time after second coat (before applying ceramic tile or stone)	About 30 to 50 minutes (when light green and dry to the touch)
Drying time before flood-testing	After 12 hours
Final dry thickness (2 coats)	20 mils at minimum
VOC content (SCAQMD Rule 1113)	< 100 g per L
Typical VOC content per SCAQMD Rule 1113 testing methods	8 g per L

Packaging and Approximate Coverage*

Size	Coverage
Pail: 3.5 U.S. gals. (13.2 L)	210 sq. ft. (19.5 m ²) at 20 mils in DFT

* Coverage shown is for estimating purposes only. Actual jobsite coverage may vary according to substrate conditions, concrete profile and porosity, type of equipment used, thickness applied, handling and application procedures.

ADDITIONAL INFORMATION

Refer to the Safety Data Sheet (SDS) for specific data related to health and safety as well as product handling.

For information on MAPEI's commitment to sustainability and transparency, as well as how MAPEI products may contribute to green building standards and certification systems, contact sustainability_USA@mapei.com (USA) or sustainability-durabilite@mapei.com (Canada).

WARNING

The test results shown in the TECHNICAL DATA table were obtained in compliance with test methods and curing cycles, if applicable, defined in the industry standards referenced on the Technical Data Sheet. Please note that the use of test procedures or methods other than those indicated in the table could lead to different values and that, in such cases, any liability of our company is excluded.

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement nor replace requirements per the TDS in effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at www.mapei.com. **ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.**

Before using, the user must determine the suitability of our products for the intended use, and the user alone assumes all risks and liability. **ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**

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For the most current product data and BEST-BACKEDSM warranty information,
visit www.mapei.com.
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