

Sound Control for Luxury Vinyl Tile/Plank Flooring



INSTALLATION GUIDE IGF0314

Mapesonic™ 2 and Ultrabond ECO® 360 as a System

Sound-reduction requirements do not stop with tile and stone installations for multi-unit housing projects. The same conditions apply with resilient flooring. *Mapesonic 2* and *Ultrabond ECO 360*, combined in a system to install LVT and LVP, provide IIC and STC values of 50 and 52 respectively when tested over a 6" (15 cm) concrete slab without a ceiling. This system also provides a Delta IIC of 20. When a suspended ceiling is installed, the values are 70 and 67 (IIC and STC).

FEATURES AND BENEFITS OF INDIVIDUAL PRODUCTS

Ultrabond ECO 360 is a proprietary, high-performance, wet-lay and pressure-sensitive adhesive designed specifically for installing homogeneous and heterogeneous solid vinyl flooring.

- Excellent indentation and shrinkage resistance
- Plasticizer-migration-resistant for use with all solid vinyl flooring
- Easy trowelability for quick installation

Mapesonic 2 is a patent-pending, next-generation, flexible, thin, 76-mil (1,9-mm) lightweight, load-bearing, fabric-reinforced "peel-and-stick" sound-reduction and crack-isolation membrane.

- Patent-pending design: Sound-reduction performance with lighter weight and thickness
- Dual protection: Provides sound reduction and crack isolation
- Semi-rigid sheet: Easy to position on floor and cut to size

FEATURES AND BENEFITS OF THE SYSTEM

- Reduces sound transmission
- Quick installation

WHERE TO USE

- For the installation of luxury vinyl tile (solid PVC tile) and vinyl plank
- Interior residential (rental apartments, condominiums and houses)
- Interior commercial (office buildings and cafeterias)

LIMITATIONS

- Do not install over any substrates containing asbestos.
- For interior installations only
- Do not use in areas prone to high point loads. Use weight-distributing caster pads where possible.
- Do not use in areas prone to excessive rolling loads (e.g., hospital beds).
- Do not apply the membrane over any adhesive residues, including cutback adhesive.
- Do not install the membrane using *MAPEI SM Primer™* when the moisture vapor emission rate (MVER) exceeds 5 lbs. per 1,000 sq. ft. (2,27 kg per 92,9 m²) per 24 hours when using the anhydrous calcium chloride test (ASTM F1869), or when the relative humidity of concrete slabs exceeds 80% (ASTM F2170).
- Do not install the membrane using *MAPEI SM Primer Fast* when the MVER exceeds 8 lbs. per 1,000 sq. ft. (3,63 kg per 92,9 m²) per 24 hours when using the anhydrous calcium chloride test (ASTM F1869), or when the relative humidity of concrete slabs exceeds 85% (ASTM F2170).
- Use only when the substrate temperature is between 50°F and 90°F (10°C and 32°C).

SUITABLE SUBSTRATES

- Properly prepared, fully cured concrete (at least 28 days old) primed with *MAPEI SM Primer* or *MAPEI SM Primer Fast*

SURFACE PREPARATION

- Patch or level the substrate using a MAPEI cement-based patching compound or a primer/self-leveler system before placing the *Mapesonic 2* membrane.
- All suitable substrates must be smooth, structurally sound and free of any substance that could prevent adhesion.
- Bond-inhibiting materials on concrete substrates should be mechanically cleaned and prepared by diamond-cup grinding or other engineer-approved methods to obtain the International Concrete Repair Institute (ICRI) concrete surface profile (CSP) #2. Do not use chemical means (acid etching or stripping) to prepare approved substrates. Use mechanical methods only.

Contact MAPEI's Technical Services Department for installation recommendations regarding substrates or conditions not listed.

INSTALLATION

1. Unroll *Mapesonic 2* and cut it to size for the substrate to be installed over. For easier handling and installation, each roll may be cut into shorter sheets (such as 10 feet [3,05 m]) before installation. Ensure that all edges of each cut sheet butt against the edges of other sheets and leave no gaps. Do not leave overlapped edges or ends from one sheet onto another. Double cutting is an acceptable means for making sure that the cut sheets are laid together tightly.
2. *Mapesonic 2* must be installed over 100% of the substrate that will be covered with luxury vinyl tile or plank. Do not leave gaps in the membrane. For effective sound reduction, an approved acoustical sealant should fill gaps between the flooring and the walls, columns, etc.
3. Number each sheet and mark its starting point on the floor, and set aside any pre-cut sections.
4. With a roller or brush, prime the floor with undiluted *MAPEI SM Primer* or *MAPEI SM Primer Fast*. (See respective TDSs for complete information and coverage rates.) The surface temperature of the prepared substrate must be at least 5°F (2,5°C) above the dew point to avoid condensation on the substrate surface as *MAPEI SM Primer* or *MAPEI SM Primer Fast* dries.
5. Let the primer dry until tacky (about 10 to 15 minutes, depending on the temperature and humidity in the air).
6. Remove 6" (15 cm) of liner from the membrane bottom.
7. Apply the membrane (at the previously marked starting point) to the tacky substrate.
8. Continue removing short lengths of liner and applying the membrane to the tacky floor. The edges of each membrane sheet should abut but not overlap the edges of other sheets.
9. For a proper bond between *Mapesonic 2* and the tacky floor, roll a 75- to 100-lb. (34,0- to 45,4-kg) roller over the installed membrane. For smaller sheets of membrane, use a wood float or steel trowel to apply pressure.
10. Cut out wrinkles or trapped objects in the membrane with a razor knife, and replace with small pieces of membrane. Layout lines can be easily applied and viewed on the surface of the light-colored membrane.
11. After *Mapesonic 2* has been installed, apply *Ultrabond ECO 360* using a 1/32" x 1/16" x 1/32" (1 x 1,5 x 1 mm) square-notch trowel.

12. Spread the adhesive evenly over the top of *Mapesonic 2*, keeping the trowel at a 45° angle to the subfloor.
13. Allow the adhesive to remain open until it no longer transfers to the touch (approximately 15 to 30 minutes). Do not apply more adhesive than can be installed within 1 hour after application.
14. Install flooring per the flooring manufacturer's instructions.
15. Roll the flooring with the recommended-weight roller across the width and length of the flooring surface.

SYSTEM PERFORMANCE PROPERTIES*

Sound-Reduction Ratings – Solid Vinyl Plank Installed on <i>Mapesonic 2</i> over 6" (15 cm) Concrete Slab		
	No suspended ceiling	Suspended ceiling
ASTM E90-09/E413-04 (STC)	52 (NGC Test #: NGC5013141)	67 (NGC Test #: NGC5013140)
ASTM E492-09/E989-09 (IIC)	50 (NGC Test #: NGC7013214)	70 (NGC Test #: NGC7013213)
ASTM E2179-03 (Delta IIC)	20 (NGC Test #: NGC7013215)	N/A

* 1 layer of 6" x 48" (15 x 122 cm) vinyl plank 1/8" (3 mm) thick, bonded to *Mapesonic 2* using MAPEI's *Ultrabond ECO 360* applied using 1/32" x 1/16" x 1/32" (1 x 1,5 x 1 mm) square-notch trowel

* 1 layer of *Mapesonic 2* installed over *MAPEI SM Primer*

* 6" (15 cm) thick reinforced concrete slab; weight 70 psf (366,1 kg/m²)



PR: 7067 MKT: 14-0170
 © 2014 MAPEI Corporation.
 All Rights Reserved. Printed in the USA.

MAPEI Headquarters of the Americas
 1144 East Newport Center Drive
 Deerfield Beach, Florida 33442
 Phone: 1-888-US-MAPEI
 (1-888-876-2734)

Technical Services
 1-800-992-6273 (U.S. and Puerto Rico)
 1-800-361-9309 (Canada)

Customer Service
 1-800-42-MAPEI (1-800-426-2734)

Services in Mexico
 0-1-800-MX-MAPEI (0-1-800-696-2734)

Document Number: IGF0314
Edition Date: August 11, 2014