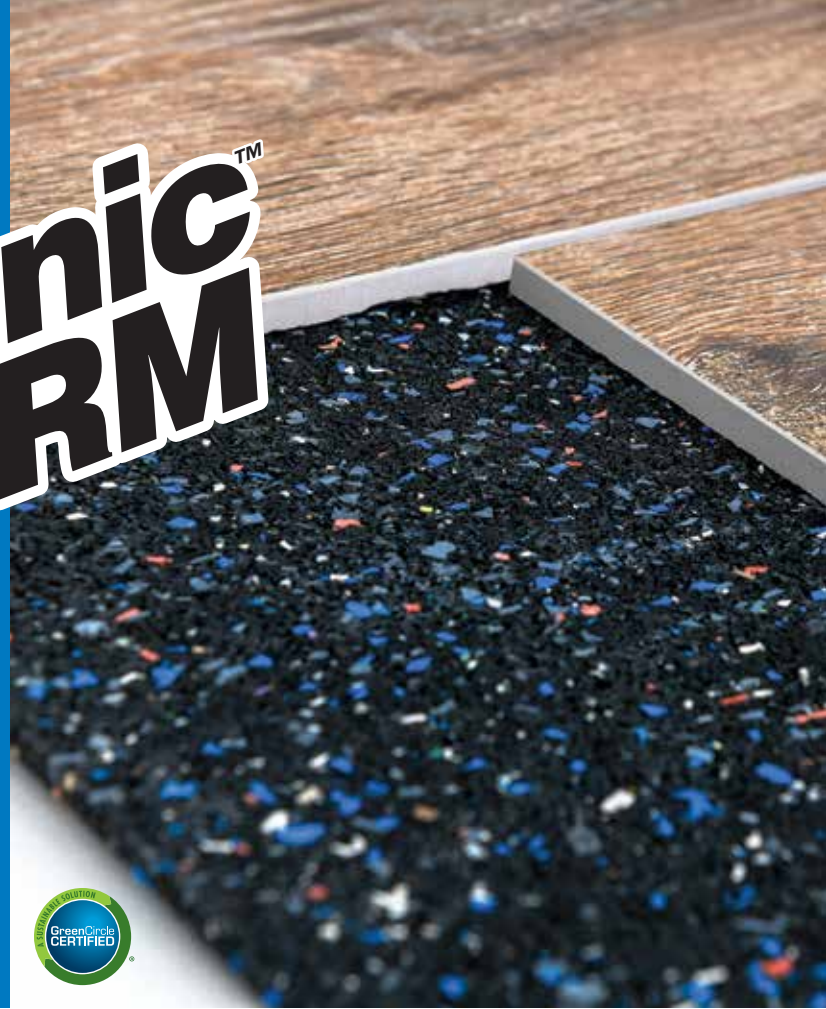




MapesonicTM RM

Premium Sound-Reduction and Crack-Isolation Rubber Membrane



DESCRIPTION

Mapesonic RM is a high-performance acoustic underlayment designed to reduce the passage of ambient and impact sound transmissions for ceramic tile and stone installations. It is ideal for applications such as apartments, condominiums, college dormitories, classrooms and office buildings.

FEATURES AND BENEFITS

- Dual use: For sound reduction and crack isolation
- Reduces impact noise under tile and stone
- Lifetime warranty when used in a MAPEI system
- IIC acoustical testing results of 50 to 64, depending on floor/ceiling assembly

INDUSTRY STANDARDS AND APPROVALS

- ASTM C627 (Robinson): Residential Rating
- ANSI: A118.12, Section 5.4 – Passes “High-Performance” requirements
- ANSI: A118.13 – Passes

LEED v4 Points Contribution

LEED Points

MR Credit, Option 2: Leadership Extraction Practices* 1 point

* Using this product may help contribute to LEED certification of projects in the category shown above. Points are awarded based on contributions of all project materials.

Additional Green Certifications

- GreenCircle-certified for 82% post-consumer and 1% pre-consumer recycled content

WHERE TO USE

Use under ceramic and natural-stone tile in interior areas such as apartments, condominiums, college dormitories, classrooms and office buildings.

Sound reduction

- For interior residential and light commercial floors
- Ideal for multi-family and multi-story buildings where noise due to impact such as foot traffic is a common problem

Crack isolation

- For interior residential and light commercial floors
- Helps to prevent existing and future in-plane substrate cracks (with movement up to 1/8" [3 mm] wide) from transmitting through ceramic tile and natural stone

LIMITATIONS

- Do not use over cracks or control joints subject to out-of-plane movement or in-plane movement greater than 1/8" (3 mm).
- Do not cover expansion joints. Refer to the most current TCNA Handbook, Detail EJ171, or TTMAC Tile Installation Manual, Detail 301MJ.
- Do not use over substrates containing asbestos, plank wood flooring, presswood, particleboard, chipboard, oriented strand board (OSB), pressure- or oil-treated plywood, Luan plywood, Masonite, self-stick tile, laminate, metal or fiberglass surfaces, or similar dimensionally unstable materials.
- Do not use on vertical surfaces; under glass tile installations; as a waterproofing or roof deck membrane or wear surface; or for submerged applications or floors subject to standing water.
- Do not use self-leveling products over Mapesonic RM.
- Do not use premixed products to set tile over Mapesonic RM.
- Do not install moisture-sensitive tile or stone with water-based setting materials. Note: On occasion, dimensionally weak natural-stone tile that normally would not be categorized as moisture-sensitive (such as travertine, limestone, marble and agglomerates) can exhibit doming,



cupping or curling when installed over sheet membranes such as *Mapesonic RM*.

- Do not use setting materials to compensate for irregularities in the substrate or to increase the elevation of the finished installation. A self-leveling underlayment or cured mortar bed should be applied to compensate for these conditions before installation of *Mapesonic RM*. When installing natural stone, always do a mockup area of the proposed installation and allow materials to reach full cure to ensure the desired effect.
- Do not use heavy equipment directly over the finished floor.
- Ceramic, porcelain or glass tile or stone set over *Mapesonic RM* must be 2" x 2" (5 x 5 cm) or larger.

For more information regarding these methods or materials, contact MAPEI's Technical Services Department before installation or design.

SUITABLE SUBSTRATES

- Cured concrete, including young (green) concrete. When used over young concrete, the concrete must have cured for at least 7 days and be suitable to support tile installation traffic as determined by the project design professional, construction manager or general contractor.
- Cement mortar beds, rendering and leveling coats
- Cement backer units (CBUs) – see manufacturer's installation guidelines
- Properly prepared cement terrazzo floors, and well-bonded ceramic tile and natural stone
- APA Group 1 and CANPLY 0121 exterior-grade plywood (interior, residential and light commercial in dry conditions only)
- Regarding subfloors and deflection requirements, refer to TCNA Handbook, Field Installation Requirements, Subsection "Maximum Allowable Deflection for Floor Systems and Substrates," and ANSI A108.01, Section 3.4.

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

SURFACE PREPARATION

- Before installation, inspect the substrate.
- All suitable substrates must be smooth, structurally sound and free of any substance that could prevent adhesion.
- Gypsum-based patching or leveling compounds may leave a dusty residue on the surface. Clean the dusty substrate before applying primer, followed by an approved MAPEI adhesive. See MAPEI's technical bulletin "Gypsum-Based Floors and Walls: Which MAPEI Products Can Be Applied?"
- Wood subfloors must be prepared according to TCNA Handbook, Field Installation Requirements, Subsection "Maximum Allowable Deflection for Floor Systems and Substrates" and ANSI A108.01, Section 3.4.
- Do not use chemical means (acid etching or stripping) to prepare approved substrates. Use mechanical methods only.
- Concrete substrates must be flat, smooth and absorptive. To remove any bond-inhibiting materials, 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.

See the "Surface preparation requirements" reference guide in the Related Documents section of the Tile & Stone Installation Systems page on MAPEI's Website.

PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

- Apply *Mapesonic RM* when substrate and ambient temperatures are between 40°F and 95°F (4°C and 35°C).
1. To effectively achieve sound reduction and to isolate and protect an entire tile installation from existing or future substrate cracks, *Mapesonic RM* must be installed over the substrate that will be covered with ceramic tile or stone.
 2. Always pre-cut and dry-fit *Mapesonic RM* in place.
 3. Apply *Ultrabond ECO® 420* to the substrate and allow it to become tacky. Use a 3/32" x 3/32" x 3/32" (2,5 x 2,5 x 2,5 mm) V-notch trowel. Check frequently for 100% transfer of adhesive to the membrane.
 4. Apply *Mapesonic RM* to the adhesive.
 5. For a proper bond between *Mapesonic RM* and the substrate, roll a 50-lb. (22,7 kg) or heavier roller over the installed membrane. For smaller pieces of membrane, use a wood float, steel trowel or hand roller to apply pressure.
 6. Cut out and remove trapped objects in the membrane with a razor knife.
 7. Lay out lines on the membrane so that tile or stone can be easily installed.
 8. For effective sound control, it is mandatory to address the perimeter of the room. Leave a 3/16" (4,5 mm) gap around the perimeter and fill it with MAPEI's *Mapesil™ T*, an acoustical sealant or an appropriate perimeter strip.

EXPANSION AND CONTROL JOINTS

- Do not cover any substrate movement joints with *Mapesonic RM*, adhesive, mortar or tiles. Provide for movement joints where specified. Refer to the most current TCNA Handbook for ceramic tile installation, Detail EJ171-07, or TTMAC Tile Installation Manual, Detail 301MJ.
- When necessary, cut tiles along both edges of the expansion joints. Do not allow tile and mortar to overlap the joints.
- Protect tilework with metal strips (edge metal) along both edges of structural building expansion joints.
- Install the specified compressible bead and sealant into all expansion and control joints.

TILE AND STONE FLOORING INSTALLATION

1. Apply an appropriate MAPEI latex polymer-modified tile mortar classified as ISO 13007 C2E and meeting ANSI A118.4, ANSI A118.11 or ANSI A118.15 industry standards or better. For moisture-sensitive tile or stone, use MAPEI's *Kerapoxy® 410*.

Product Characteristics

| | <i>Mapesonic RM 5</i> | <i>Mapesonic RM 10</i> |
|------------------------------|--|---|
| Color | Black | |
| Shelf life | 2 years when stored in unopened, original packaging at 73°F (23°C) | |
| Weight per sq. ft. | 0.85 lbs. per sq. ft. (4,2 kg per m ²) | 1.65 lbs. per sq. ft. (8,1 kg per m ²) |
| Weight of full roll | 85 lbs. (38,6 kg) | 165 lbs. (74,8 kg) |
| Density (ASTM D792) | 43 lbs. per cubic ft. (689 kg per m ³) | |
| Shore "A" hardness | 40 to 55 | |
| Quantity of rolls per pallet | 20 | 12 |
| Pallet weight | 1,863 lbs. (845 kg) | 2,018 lbs. (915 kg) |

Specifications

| Test Method | Results |
|---|--|
| ASTM C627 – Service Rating (Robinson) | Residential Rating |
| ANSI A118.12, Section 5.4 – Crack-Isolation Membranes for Thin-Set Ceramic Tile and Dimension Stone Installations | Passes "High-Performance" requirements |
| ANSI A118.13 – Specifications for Bonded Sound-Reduction Membranes for Thin-Set Ceramic Tile Installations | Passes |

ASTM Standards for Sound Reduction: MAPEI Corporation and MAPEI Inc. certify that the following sound tests (for tile) were conducted and results supplied by Intertek in York, PA. For sound-reduction ratings, higher numbers are preferred over lower numbers.

| Sound-Reduction Ratings Over 6" (15 cm) Concrete Slab | | | | |
|--|--|--------------------|------------------------|----------------------|
| | | | Ceramic Tile and Stone | |
| ASTM test method | Type of sound-transmission measurement | Membrane thickness | Suspended ceiling | No suspended ceiling |
| E90 | STC | 3/16" (5 mm) | 63 | 54 |
| E492 | IIC | 3/16" (5 mm) | 62 | 50 |
| E492 | Delta IIC | 3/16" (5 mm) | - | 20 |
| E90 | STC | 3/8" (10 mm) | 63 | 53 |
| E492 | IIC | 3/8" (10 mm) | 62 | 50 |
| E492 | Delta IIC | 3/8" (10 mm) | - | 20 |
| Sound-Reduction Ratings Over 8" (20 cm) Concrete Slab | | | | |
| | | | Ceramic Tile and Stone | |
| ASTM test method | Type of sound-transmission measurement | Membrane thickness | Suspended ceiling | No suspended ceiling |
| E90 | STC | 3/16" (5 mm) | 63 | 53 |
| E492 | IIC | 3/16" (5 mm) | 64 | 52 |
| E90 | STC | 3/8" (10 mm) | - | 56 |
| E492 | IIC | 3/8" (10 mm) | - | 54 |
| Sound-Reduction Ratings Over Wood Flooring with Gypsum Substrate | | | | |
| | | | Ceramic Tile and Stone | |
| ASTM test method | Type of sound-transmission measurement | Membrane thickness | Suspended ceiling | No suspended ceiling |
| E90 | STC | 3/16" (5 mm) | 57 | - |
| E492 | IIC | 3/16" (5 mm) | 53 | - |
| E90 | STC | 3/8" (10 mm) | 59 | - |
| E492 | IIC | 3/8" (10 mm) | 53 | - |

The Sound Transmission Class (STC) and Impact Insulation Class (IIC) ratings were calculated in accordance with ASTM E413 and ASTM E989, respectively. Test results can be requested from MAPEI's Technical Services Department.

**Mapesonic[™]
RM**

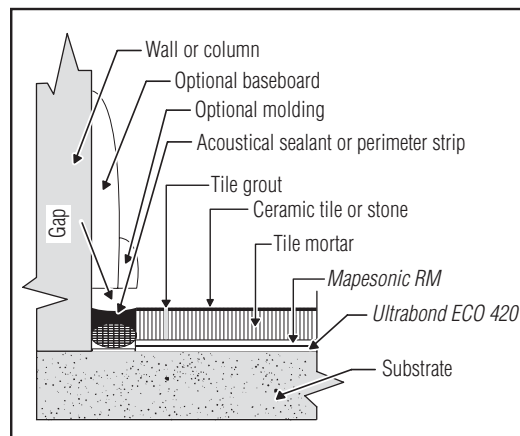
Packaging and Coverage

| Product | Roll Thickness | Roll Size and Coverage |
|-----------------|----------------|---|
| Mapesonic RM 5 | 3/16" (5 mm) | 4' x 25' (1,22 x 7,62 m) = 100 sq. ft. (9,29 m ²) |
| Mapesonic RM 10 | 3/8" (10 mm) | 4' x 25' (1,22 x 7,62 m) = 100 sq. ft. (9,29 m ²) |

- Install tile or stone when *Mapesonic RM* is properly bonded to the substrate. Follow installation guidelines listed in the TDSs for the selected MAPEI tile-setting mortar and grout being utilized, including wait times before grouting and protection from light foot traffic. Depending on site conditions, temperature and humidity, waiting times may need to be extended.
- For fast-track installations, use rapid-setting products such as MAPEI's *Ultraflex[™] RS* mortar and *Ultracolor[®] Plus FA* grout.

PROTECTION

- Provide for dry storage on site at between 40°F and 95°F (4°C and 35°C). Deliver installation materials at least 24 hours before application.
- Do not store *Mapesonic RM* in direct sunlight.
- For waiting times before grouting and protection from light foot traffic, refer to the TDS of the MAPEI tile-setting mortar and grout being utilized. Depending on site conditions, temperature and humidity wait times may need to be extended.
- Protect the tile installation from heavy traffic or rolling loads by waiting 72 hours if using a rapid-setting mortar and 7 days if using a thin-set or large-and-heavy-tile mortar (formerly known as "medium-bed mortar").
- Protect the installation from contamination and damage before and during tilework.
- Always provide proper protection of finished floors utilizing *Mapesonic RM* when heavy construction equipment (such as forklifts or scissor lifts) is to be used over them.



RELATED DOCUMENTS

Reference Guide: "Surface preparation requirements" for tile and stone installation systems*

Technical Bulletin: "Gypsum-Based Floor and Walls: Which MAPEI Products Can Be Applied?"*

* At www.mapei.com

Refer to the SDS for specific data related to health and safety as well as product handling.

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 or 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.**

We proudly support the following industry organizations:



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