Mapeguard® UM
Underlayment membrane for ceramic and stone tile
**Mapeguard UM**

*Mapeguard UM* is a uniquely engineered, tri-layered underlayment membrane that combines crack suppression, waterproofing, vapor equalization and compression resistance.

- **Crack suppression**
  
  This membrane isolates existing and future in-plane substrate cracks to keep them from transferring through tile. It can suppress cracks up to 1/8" (3 mm) for remodeling and updating projects with older substrates as well as for working over new concrete where cracks have not yet appeared. *Mapeguard UM* offers uncoupling action with its polypropylene layers, allowing the substrate and the tile to move independently, in plane, and reducing the stress of differential movement.

- **Waterproofing**
  
  Three layers of polypropylene material offer superior protection from penetration due to spills, cleaning maintenance and unplanned leaks. Plus, *Mapeguard UM* protects plywood, OSB and wood framing from moisture-related problems. Use sealing tape on seams to ensure complete waterproofing.

- **Water vapor and pressure equalization**
  
  The indentations on the substrate side of the *Mapeguard UM* membrane provide space for moisture dissipation and vapor pressure equalization. This is ideal for difficult subfloors such as fresh cement or young concrete, which is prone to moisture migration.

- **Resistance to compression**
  
  ASTM testing verifies *Mapeguard UM*’s service rating of Extra Heavy. *Mapeguard UM* fully supports rolling loads when movement joints are included in the design, when commercially rated tile 2" x 2" x 1/4" (5 cm x 5 cm x 6 mm) or larger is installed, and when L/360 subfloor deflection criteria are met. The substrate-side indentations are exposed profile channels that enhance the mechanical bonding of mortar to the substrate.
FEATURES AND BENEFITS

• Prevents transmission of in-plane substrate cracks up to 1/8” (3 mm)
• Recommended for use with polymer-modified mortars
• Fast Track Ready™: Approved for use over young (green) concrete and mortar beds
• Time-saving: Embed membrane then install tile immediately
• Engineered cavity design allows easy single-pass filling of surface core with less mortar
• Uncoupling, waterproofing and water vapor membrane up to 25 lbs. (11.3 kg) MVER and 100% relative humidity
• Compression resistance to support rolling loads
• Approved for radiant-heating applications
• Light green, translucent color shows mortar coverage under membrane
• Reduced “roll memory” and unique tri-layer construction keep membrane flat.
• Lightweight for easy handling and fast installation
• Easy to cut with standard utility knife
• Chalk and laser lines easily visible on surface
• Mesh-fabric top layer makes it easy to fill cavities with mortar
• ASTM C627 (Robinson): Extra Heavy Rating
• ANSI: Exceeds A118.10 (Waterproofing Membrane for Thin-Set Ceramic Tile)
• Meets ANSI A118.12 bond strength and point load resistance requirements

Single-layer plywood application

The strength and integrity of the bonded layers replace the need for a second sheet of plywood, cutting down on weight, thickness and bulk.

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SUITABLE SUBSTRATES

• Concrete
• Young concrete
• Cement mortar beds, self-leveling underlayment and leveling coats
• Approved backer units
• Cement terrazzo
• Epoxy terrazzo
• Gypsum underlayment or lightweight concrete
• Exterior-grade plywood and OSB (dry areas only)
• Existing ceramic tile or stone
• Radiant-heat systems
• Resilient flooring (properly prepared)
• Exterior balconies and terraces not over occupied living spaces

BEST-BACKED™ WARRANTY

When Mapeguard UM is incorporated in a system with mortar and grout, either a 10-year, 25-year or Lifetime warranty will apply, depending on the selection of the products used. The term of the warranty is based on product classifications according to industry standards and approvals.

A typical system of Ultraflex™ LFT™ modified large-and-heavy-tile mortar and Ultracolor® Plus FA grout with Mapeguard UM has a 25-year system limited warranty. Materials and labor are included in the warranties.

ADDITIONAL INFORMATION

For more information, watch the Mapeguard UM video and read the technical literature online at www.mapei.com.