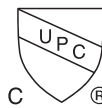


Mapeguard Pre-Formed Shower Tray

Rigid, Lightweight, Waterproofed Tray



DESCRIPTION

Mapeguard® Pre-Formed Shower Tray is part of MAPEI's line of shower system products. *Mapeguard Pre-Formed Shower Tray* is the quick and easy alternative for shower-base installations. It is pre-sloped and made from high-density expanded polystyrene (EPS) with a high-quality waterproofing sheet membrane bonded to the polystyrene foam.

Waterproof, lightweight, durable and ready to tile, *Mapeguard Pre-Formed Shower Tray* simplifies and reduces installation time. Its waterproof attributes do not contribute to mold or mildew. Available in a variety of sizes, it can be cut to fit for customized sizing. A layered foam-honeycomb composite variation of the tray is available for enhanced rigidity and superior compressive strength.

Mapeguard Pre-Formed Shower Tray is for use under thin-set installations of ceramic tile and dimensional stone for both residential and commercial shower applications. *Mapeguard Pre-Formed Shower Tray* comes with center-point and off-center-point drain layouts and is designed for use with *Mapeguard Drain*, which features an integrated bonding flange.

FEATURES AND BENEFITS

- Pre-sloped 1/4" per foot (6 mm per 0.30 m) to the drain
- Made from high-density, expanded polystyrene (EPS)

- Waterproof attributes that do not contribute to mold or mildew
- Lightweight, durable and rigid
- Easy to handle and install
- Available in multiple sizes
- Quick and easy to cut for customizable sizing
- Pre-applied waterproofed membrane that exceeds ANSI A118.10-S
- Available in variations of foam or foam-honeycomb composite, with the foam-honeycomb version providing enhanced rigidity and superior compressive strength
- Designed for use with *Mapeguard Drain* (sold separately)
- Foam-honeycomb composite version is approved for use with tiles smaller than 2" x 2" (5 x 5 cm)
- Can be extended with application of dry-pack mortar and a MAPEI waterproofing membrane
- Part of a single-source warranted system from MAPEI

INDUSTRY STANDARDS AND APPROVALS

- Exceeds ANSI A118.10-S
- IAPMO classification: Listed for use as a shower-pan liner
- IAPMO file number: K-29401

WHERE TO USE

- Interior use only
- Installations of point drain showers
- Residential, light commercial and commercial shower floors
- Pet showers
- Use in place of dry-pack mortar bed as well as acrylic or fiberglass shower pan bases
- Under installations of ceramic tile and dimensional stone on shower floors

LIMITATIONS

- Do not use over substrates containing asbestos, presswood, particleboard, pressure or oil-treated plywood, Lauan plywood, Masonite, self-stick tile, metal or fiberglass surfaces, epoxy floors or dimensionally unstable materials.
- *Mapeguard Pre-Formed Shower Tray* is waterproof, but to maintain a waterproof installation, all joints and penetrations must be sealed.
- For waterproofing on walls and ceilings, use of *Mapeguard Board*, *Mapelastic® AquaDefense*, *Mapelastic Turbo* [NA] or *Mapeguard WP 200* sheet membrane is recommended.
- Do not use when hydrostatic pressure exists.
- Not for use with linear drains
- Not for use in continuous-use steam rooms
- Store *Mapeguard Pre-Formed Shower Tray* inside. Do not expose it to the elements.
- *Mapeguard Pre-Formed Shower Tray* must be covered with ceramic tile or stone; it is not approved as a wear layer.
- Do not use in permanently submerged applications (pools, saunas, etc.)

- *Mapeguard Pre-Formed Shower Trays* made of foam are rated to 60 psi (0.41 MPa).
- For the foam-honeycomb composite version of this product, the honeycomb portion of the *Mapeguard Pre-Formed Shower Tray* is rated at 235 psi (1.62 MPa).
- Do not use in applications where *Mapeguard Pre-Formed Shower Tray* will be exposed to temperatures of 165°F (74°C) or greater.
- Do not use premixed adhesive products such as organic adhesives (mastic) to set tile over *Mapeguard Pre-Formed Shower Tray*.
- Tiles must be suitable for wet floor installations and have a minimum thickness of 7/32" (5.5 mm).
- For details on these methods or materials, contact MAPEI Technical Services before installation or design.
- The minimum size of approved tiles is 2" x 2" (5 x 5 cm) when using the *Mapeguard Pre-Formed Shower Tray* that is made of foam.
- *Mapeguard Pre-Formed Shower Tray* must be covered with temporary plywood or similar boards before tiling to protect it from foot and construction traffic.

SUITABLE SUBSTRATES

- Concrete (cured for at least 28 days)
- Masonry cement
- Industry-approved exterior-grade plywood*
- Cement backer units (CBUs) – see manufacturer's installation guidelines
- APA Sturd-I-Floor Exposure 1 OSB*

* Interior use only

SURFACE PREPARATION

- All substrates must be structurally sound, flat, stable, dry, clean and free of any substance or condition that may reduce or prevent proper adhesion.
- Level floor prior to shower tray installation. Any depressions should be filled with an appropriate MAPEI patching or leveling mortar. Make certain that there are no voids beneath the panel and that it is fully supported.
- Substrate and ambient temperature must be between 40°F and 90°F (4°C and 32°C) for protection after installation.
- Ensure that walls are square and plumb for fitting *Mapeguard Pre-Formed Shower Tray*.
- Installations require a minimum slope of 1/4" per foot (6 mm per 0.30 m) toward the drain.
- In waterproofing applications, refer to TCNA Handbook, ANSI standards and local codes for requirements.
- Follow all applicable industry standards and guidelines for installations within shower receptors. See the "Applicable Industry Codes, Standards and Guidelines" section in the TCNA Handbook.
- Surfaces must be structurally rigid enough to support ceramic/stone tile, thin brick and similar finishes. Substrate deflection under all live, dead and impact loads (including concentrated loads) must not exceed L/360 for thin-bed ceramic tile/brick installations or L/720 for thin-bed stone installations where "L" = "span length."

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

Notes

- *Mapeguard Pre-Formed Shower Tray* may be installed before or after installation of shower walls. Install shower walls according to the manufacturer's directions, with a waterproof, foam backer board such as *Mapeguard Board* or a MAPEI waterproofing membrane over an approved backer board. Curbs, seats and benches (if applicable) should be dry-fit with *Mapeguard Pre-Formed Shower Tray* in the shower space before installation of this tray to ensure proper alignment and layout, but they should be installed after the tray installation.
- Use caution not to damage the surface of *Mapeguard Pre-Formed Shower Tray* during construction or before installation of tile or stone finishes.
- Although *Mapeguard Pre-Formed Shower Tray* itself is waterproof, to ensure a fully waterproof shower floor area upon installation of the tray and drain, it is necessary to install a waterproofing membrane collar over the drain. A MAPEI waterproofing membrane is required for seams, corners, penetrations and areas where the tray, curbs, niches and seats/benches meet walls and floors.

Materials list

The quantity and size of these materials will vary depending on the shower compartment configuration to be installed. It is recommended to measure the shower area before beginning the work to be prepared with the desired amount of materials needed to complete the project. The list below assumes that the floor substrate has already been prepared and leveled and that the walls have been waterproofed.

- *Mapeguard Pre-Formed Shower Tray* (use a utility knife if cutting to size)
- 3/4" x 9/16" x 3/8" (19 x 14 x 10 mm) U-notched trowel or 1/4" x 3/8" x 1/4" (6 x 10 x 6 mm) square-notched trowel for installation of shower tray and support ring
- Support ring for drain (included with *Mapeguard Pre-Formed Shower Tray*)
- Waterproofing collar for drain (included with *Mapeguard Pre-Formed Shower Tray*)
- 1/4" x 3/16" (6 x 4.5 mm) V-notched trowel for installation of waterproofing collar
- *Mapeguard Drain* assembly
- *Mapeguard Pre-Formed Curb*, *Mapeguard Pre-Formed Seat*, *Mapeguard Pre-Formed Bench* and *Mapeguard Pre-Formed Niche*
- *Mapeguard VC* and *Mapeguard PC* waterproofing valve and pipe collars
- *Mapelastic AquaDefense* or *Mapelastic Turbo* [NA] in combination with *Reinforcing Fabric*; alternatively, use *Mapeguard WP 200* and accessories, *Mapeguard PIC* and *Mapeguard POC* (inside and outside corners), *Mapeguard WP ST* waterproofing sealing tape
- MAPEI polymer-modified mortar that meets the ANSI A118.4H, ANSI A118.11 or ANSI A118.15H standard, or is classified as ISO 13007 C2E, C2F or better, for setting the shower tray and drain
- A dry-pack mortar (4 to 1™ *Mud Bed Mix* or *Planislope*™ *RS*) and float... if the shower floor will be extended beyond *Mapeguard Pre-Formed Shower Tray*
- A primer and ABS or PVC cement per the solvent cement manufacturer's recommendations
- A straightedge as well as a utility knife or circular saw for field fabrication
- A caulking gun for applying sealant
- 100%-silicone sealant or a hybrid sealant
- *Mapeguard Drain Grate* (sold separately) to be installed as the final step

Note: For fast-track installations, use a MAPEI rapid-setting, polymer-modified, large-and-heavy-tile mortar that is rated as A118.4FH or better.

Plumbing access

- For an accessible plumbing/waste line and connection: *Mapeguard Pre-Formed Shower Tray* can be installed before or after the drain. For the best results and alignment, install the drain first.
- For a non-accessible plumbing/waste line and connection: The drain can be installed and connected to the waste line before or after the installation of *Mapeguard Pre-Formed Shower Tray*. For the best results and alignment, install the drain first.

Drain outlet preparation

1. Locate and cut a hole in the substrate to accommodate the drain outlet and connection to the waste line.
2. Limit the diameter of the hole to 4-1/4" to 4-1/2" (10.8 to 11.4 cm) maximum to ensure proper support for the drain and tile assembly.
3. With a cleaner, primer and ABS or PVC cement per the solvent cement manufacturer's instructions, connect the plumbing components. Check to ensure that the odor trap, waste line and pipe stub are secure so that when the drain body is pushed later onto the pipe, the pipe does not move down, which could cause it to not engage fully in the socket.

PRODUCT APPLICATION

Mapeguard Pre-Formed Shower Tray sizing, cutting and extending

- Measure the shower compartment space to determine the size needed.
- Dry-fit *Mapeguard Pre-Formed Shower Tray* to confirm correct sizing, center-aligning the drain hole outlet in the substrate with the drain hole in the tray.
- Curbs and benches should also be dry-fit with *Mapeguard Pre-Formed Shower Tray* and the drain hole outlet during this initial measuring stage, to ensure proper alignment and the desired layout of all components.
- If the shower floor base will be extended beyond the tray, the additional space should be taken into consideration when dry-fitting components and determining the amount of curb needed.
- If the *Mapeguard Pre-Formed Shower Tray* is too large for the shower floor base, cut the tray to size before installation using a straightedge and utility knife or circular saw.
- Cut this *Mapeguard Pre-Formed Shower Tray* by equal amounts on all sides to keep the slope height a consistent elevation for the first course of wall tile, and to keep the tray hole centered over drain outlet. (Do not cut more than 6" [15 cm] off any side on square bases such as 48" x 48" or 14.6 x 14.6 m.)
- After installation of the *Mapeguard Pre-Formed Shower Tray*, if needed, the shower floor base can be extended beyond the tray using dry-pack mortar. See section below titled "Extending *Mapeguard Pre-Formed Shower Tray* with dry-pack mortar."

Installing Mapeguard Drain

1. Always dry-fit *Mapeguard Drain* before placing. The integrated flange point drain can be installed before or after installing *Mapeguard Pre-Formed Shower Tray*. Note that it is easier to install before the shower tray.
2. In new construction where the stub-out waste pipe is installed, measure the pipe from 1-3/4" to 1-7/8" (4.4 to 4.8 cm) from the top of the substrate to the pipe and mark. Cut the pipe at this mark.
3. Dry-fit *Mapeguard Drain* to the pipe setting, making it flush on top of the substrate. Use a torpedo level to verify that the *Mapeguard Drain* base is level in both directions.
4. In renovation construction, temporarily install a 2" (5 cm) ABS or PVC plastic riser into P-trap. Mark the riser flush with the top of the subfloor and remove the pipe after marking.

5. Measure down 1-3/4" to 1-7/8" (4.4 to 4.8 cm) from this mark flush with the top of the subfloor. Mark this measurement on the pipe and cut.
6. Dry-fit the cut pipe (riser) to the P-trap to be sure that the riser is the correct length. Dry-fit *Mapeguard Drain* to the pipe. Use a torpedo level to verify that the *Mapeguard Drain* base is level in both directions.
7. Assemble the drain and establish the desired drain grate height and proper alignment.
8. Prepare the odor trap, drain and pipe with cleaner, primer and ABS or PVC cement per the solvent cement manufacturer's instructions.
9. Use an approved MAPEI polymer-modified large-and-heavy-tile thin-set mortar (hereafter referred to as MAPEI polymer-modified mortar) rated as ANSI A118.4H or better to set *Mapeguard Pre-Formed Shower Tray*.
10. Use the flat side of a 3/4" x 9/16" x 3/8" (19 x 14 x 10 mm) U-notched trowel or 1/4" x 3/8" x 1/4" (6 x 10 x 6 mm) square-notched trowel. Key in a thin layer of MAPEI polymer-modified mortar to the substrate and the back of the drain body only where the support ring will be placed and the back of the drain body flange that will rest on the support ring. The inner diameter of the drain body will be supported by sitting directly on the substrate without mortar.
11. Apply additional mortar to the substrate using the notched side of the trowel.
12. Set the support ring supplied with the *Mapeguard Pre-Formed Shower Tray* into the fresh mortar. Trowel mortar over the top side of the ring to support the drain flange.
13. Immediately join the riser to the P-trap, followed by joining the drain base to the riser.
14. Permanently assemble the *Mapeguard Drain* base to the riser and all parts by applying pressure in a twisting motion while connecting the pipe to the hubs of the P-trap and drain base. Simultaneously, firmly embed the drain body into the mortar to ensure solid support with the drain pipe and waste line for a proper connection.
15. Thread the grate holder and grate down so it will be 1/16" (1.5 mm) below the final tile height installed with thin-set mortar.
16. Use a torpedo level to verify that the drain base placement is level in both directions.
17. Clean away excess mortar.
18. Snap the mortar guard into the grate holder. This will protect the plumbing until after tile installation and grouting are completed.
19. For complete installation instructions, refer to the *Mapeguard Drain* installation guide in the drain body package.

Installing the Mapeguard Drain integrated bonding flange drain after the tray

- If the drain will not be installed immediately after installation of *Mapeguard Pre-Formed Shower Tray*, clean the mortar from shower tray drain template and area surrounding the hole in the subfloor, to prevent dried mortar from impeding drain installation later.

Installing Mapeguard Pre-Formed Shower Tray

1. After installing *Mapeguard Drain* and dry-fitting *Mapeguard Pre-Formed Shower Tray*, remove the tray. Using the flat side of a 3/4" x 9/16" x 3/8" (19 x 14 x 10 mm) U-notched trowel or 1/4" x 3/8" x 1/4" (6 x 10 x 6 mm) square-notched trowel, key in a MAPEI polymer-modified mortar to the substrate of the shower area.
2. The mortar used must meet the ANSI A118.4H, ANSI A118.11 or ANSI A118.15H standard or be classified as at least ISO 13007 C2E or C2F.
3. Comb additional mortar using the notched side of the trowel.
4. When using the 3/4" x 9/16" x 3/8" (19 x 14 x 10 mm) U-notched trowel, skim MAPEI polymer-modified mortar to the bottom and inside edges of the *Mapeguard Pre-Formed Shower Tray* pieces as well.
5. When using the 1/4" x 3/8" x 1/4" (6 x 10 x 6 mm) square-notched trowel, apply a notched bond coat of mortar on the back of the foam tray and inside edges to ensure that the foam tray is not recessed from the drain.

6. Place *Mapeguard Pre-Formed Shower Tray* and solidly it embed into the mortar. Apply firm pressure or follow a walking pattern from the center of the tray outward to fully embed the tray into the wet mortar.
7. Check the pan for a level set around the perimeter and a proper slope to the drain. The mortar bags can be applied equally as weights across the tray for 30 minutes if needed.

Installing the Mapeguard Pre-Formed Curb, Mapeguard Pre-Formed Seat/Bench, waterproofing collar, waterproofing corners and waterproofing sealing tape

- Once *Mapeguard Pre-Formed Shower Tray* is installed, the same steps outlined above can be followed for installing the curbs, seats and benches. Refer to the individual products' Technical Data Sheets (TDSs) for complete details.

Installing Mapeguard Drain waterproofing collar

Note: A collar is necessary to waterproof *Mapeguard Drain* and the connection to *Mapeguard Pre-Formed Shower Tray*.

1. Using the flat side of a 1/4" x 3/16" (6 x 4.5 mm) V-notched trowel, apply thin-set mortar over the bonding flange and area surrounding the drain.
2. Comb additional mortar using the notched side of the trowel.
3. Center the collar over the drain and embed using the flat side of the trowel, a margin trowel or a drywall taping knife. Ensure that this connection is secure.
4. Clean the excess mortar from the drain collar, drain body and substrate.

Installing Mapeguard Pre-Formed Seat and Mapeguard Pre-Formed Bench

1. To install *Mapeguard Pre-Formed Seat* or *Bench*, use a 1/2" x 1/2" x 1/2" (12 x 12 x 12 mm) square-notched trowel. Apply an approved MAPEI polymer-modified large-and-heavy-tile thin-set mortar rated as ANSI A118.4H or better to the walls behind the bench and on the floor under the bench.
2. Key in a thin layer of MAPEI polymer-modified mortar on the sides and bottom of the bench to help ensure a tight bond and proper support.
3. Embed the seat or bench and adjust to the desired position, sloping toward the drain.
4. Carefully remove excess MAPEI polymer-modified mortar without damaging the waterproof coating.
5. Waterproof bench, wall and shower tray joints with an appropriate MAPEI waterproofing membrane.
6. Refer to the product's TDS for complete details.

Installing Mapeguard Pre-Formed Curb

1. To install *Mapeguard Pre-Formed Curb*, use a MAPEI polymer-modified mortar by applying it to the floor, edge of the shower base/tray, walls and to the bottom and both ends of curb for proper support.
2. Embed the curb and adjust to the desired position, sloping it toward the drain.
3. Waterproof wall, floor and curb joints with an appropriate MAPEI waterproofing membrane.
4. Refer to the product's TDS for complete details.

Installing MAPEI waterproofing on seams, wall and floor joints, penetrations and corners

1. Waterproof *Mapeguard Pre-Formed Seat* or *Bench*, wall, *Mapeguard Pre-Formed Niche* and *Mapeguard Pre-Formed Shower Tray* joints with an appropriate MAPEI waterproofing membrane. To achieve a waterproofed system, first use a MAPEI polymer-modified mortar to fill any gap that is between 1/8" and 1/2" (3 and 12 mm).

2. Option A: When the fill mortar is dry per its TDS, use MAPEI's *Reinforcing Fabric* in combination with *Mapelastic AquaDefense* or *Mapelastic Turbo* [NA] to seal all joints with a minimum 3" (7.5 cm) overlap on both sides of the joint. Place fabric into wet liquid, apply pressure to the fabric, working out wrinkles or bubbles while forcing the waterproofing to come through the fabric. Overlap seams and ends of the fabric by a minimum of 2" (5 cm). While fabric is still wet, apply additional liquid membrane over the fabric until completely covered. Let dry completely.

Option B: *Mapeguard WP ST* waterproofing seaming tape can instead be used to waterproof the system along with an approved MAPEI polymer-modified mortar troweled with a 1/4" x 3/16" (6 x 4.5 mm) V-notched trowel. Press *Mapeguard WP ST* firmly into the mortar with at least 2" (5 cm) on each side of the seam and embed the tape. Remove any trapped air and ensure full adhesion to the material by spreading the mortar from the inside out using a trowel or straight-edge with rounded corners.
3. Use the same technique that was used for the collar to install the corners and sealing tape with the tray and the walls and curbs.
4. A minimum overlap of 3" (7.5 cm) must be maintained at all seams.
5. If *Mapeguard Pre-Formed Shower Tray*, *Mapeguard Pre-Formed Seat or Bench* or *Mapeguard Pre-Formed Curb* is punctured during installation, recoat the punctured area and 2" (5 cm) around the area with *Mapelastic AquaDefense* or *Mapelastic Turbo* [NA] in combination with *Reinforcing Fabric*. Otherwise, install *Mapeguard WP 200* waterproofing sheet over the affected area.
6. Refer to the products' TDSs for complete details.

Extending *Mapeguard Pre-Formed Shower Tray* with dry-pack mortar

1. Using *4 to 1 Mud Bed Mix* or *Planislope RS*, mix the mortar to a dry-pack consistency, following product application instructions to float and slope the mortar bed to extend the shower base as needed.
2. Place the dry-pack mortar in the areas between *Mapeguard Pre-Formed Shower Tray* and walls, placing into fresh/wet mortar, compressing the dry-pack mortar with a wood float to leave it slightly higher than the surface of this tray.
3. Using *Mapeguard Pre-Formed Shower Tray* as a guide, remove and compact the excess mortar to produce a smooth transition while maintaining the slope of the tray.
4. Clean the surface of any loose particles/debris.
5. Allow the dry-pack mortar to dry per product requirements. Then apply an approved MAPEI waterproofing membrane over the mortar bed, extending it at least 2" (5 cm) onto the *Mapeguard Pre-Formed Shower Tray* following installation recommendations in this document, before waterproofing the seams, corners, etc.

FLOOD TESTING per ASTM D5957

Allow the MAPEI waterproofing membrane to cure per the time recommended in the product's TDS. Actual curing time depends on air and substrate temperature, substrate porosity and humidity. Expect shorter drying times in warmer conditions, and longer drying times in cooler conditions. Flood-test in accordance with local plumbing code requirements.

EXPANSION JOINTS

- Provide for movement joints as specified per TCNA Method EJ171.
- Do not cover any expansion joints with mortar.

GROUTING

Tiles may be grouted once the mortar has cured enough to allow light traffic, which will depend upon the mortar used, tile size, tile type and jobsite conditions. Select an appropriate MAPEI cement, premixed or epoxy grout. Allow for longer drying time before grouting when installing tiles greater than 15" (38 cm) on one or more sides.

PROTECTION

- Do not store in direct sunlight.
- Provide for dry, heated storage on site and deliver materials at least 24 hours before tilework begins.
- Maintain a temperature between 45°F and 90°F (7°C and 32°C) for at least 24 to 48 hours after the installation.
- Do not leave *Mapeguard Pre-Formed Shower Tray* exposed after installing, protecting it from foot traffic and other trades before installation of tile or stone.
- Protect the installation from spills, contamination and damage before and during tilework to ensure an adequate bond with the mortar.
- If the waterproof coating is punctured during installation or from jobsite construction activity, recoat the punctured area and 2" (5 cm) around the area with *Mapelastic AquaDefense* or *Mapelastic Turbo* [NA] in combination with *Reinforcing Fabric*, or install *Mapeguard WP 200* waterproofing sheet membrane. Refer to the corresponding TDSs for instructions.
- Refer to the TDSs of the selected MAPEI tile-setting mortar and grout regarding protection from traffic.
- Perform a leak test on the connection between the drain and the waste line before tiling.

Product Properties

Size and material	Density – ASTM D3575	Compressive strength – ASTM D1621 at 10% deflection
Polystyrene foam		
72" x 72" (183 x 183 cm), center drain	3 lbs. per cu. ft. (48.055 kg per m ³)	60 psi (0.41 MPa)
48" x 72" (122 x 183 cm), center drain	3 lbs. per cu. ft. (48.055 kg per m ³)	60 psi (0.41 MPa)
48" x 60" (122 x 152 cm), center drain	3 lbs. per cu. ft. (48.055 kg per m ³)	60 psi (0.41 MPa)
48" x 48" (122 x 122 cm), center drain	3 lbs. per cu. ft. (48.055 kg per m ³)	60 psi (0.41 MPa)
38" x 48" (97 x 122 cm), center drain	3 lbs. per cu. ft. (48.055 kg per m ³)	60 psi (0.41 MPa)
38" x 38" (97 x 97 cm), center drain	3 lbs. per cu. ft. (48.055 kg per m ³)	60 psi (0.41 MPa)
38" x 60" (97 x 152 cm), center drain	3 lbs. per cu. ft. (48.055 kg per m ³)	60 psi (0.41 MPa)
38" x 60" (97 x 152 cm), off-center drain	3 lbs. per cu. ft. (48.055 kg per m ³)	60 psi (0.41 MPa)

Polystyrene foam-honeycomb composite		
72" x 72" (183 x 183 cm), center drain	3 lbs. per cu. ft. (48.055 kg per m ³)	235 psi (1.62 MPa) (honeycomb portion)
48" x 72" (122 x 183 cm), center drain	3 lbs. per cu. ft. (48.055 kg per m ³)	235 psi (1.62 MPa) (honeycomb portion)
48" x 48" (122 x 122 cm), center drain	3 lbs. per cu. ft. (48.055 kg per m ³)	235 psi (1.62 MPa) (honeycomb portion)
38" x 60" (97 x 152 cm), center drain	3 lbs. per cu. ft. (48.055 kg per m ³)	235 psi (1.62 MPa) (honeycomb portion)

Product Performance Properties

Test Method	Foam Result	Foam-Honeycomb Composite Results
ASTM E96, Procedure E – water vapor transmission	Residential	Residential
ANSI A118.10 / ASTM D4068 – Waterproofness	Passed	Passed
ANSI A118.10 – Shear bond strength 7 days dry, 7 days immersed	Passed	Passed
ASTM D1621 Procedure E – Compressive strength	60 psi (0.41 MPa)	235 psi (1.62 MPa) (honeycomb portion)
ASTM G21 – Resistance to fungi	Passed	Passed
IAPMO PS106 – Fungus and microorganism growth resistance	Passed	Passed

Shelf Life and Product Characteristics

Shelf life	
Polystyrene foam	5 years when stored in original, unopened packaging at 73°F (23°C) and 50% relative humidity
Polystyrene foam-honeycomb composite	5 years when stored in original, unopened packaging at 73°F (23°C) and 50% relative humidity
Color	
Polystyrene foam	White
Polystyrene foam-honeycomb composite	White and blue
Maximum temperature exposure	165°F (74°C)

Packaging and Coverage

Length by width	Perimeter height	Coverage	Drain location
Polystyrene foam			
72" x 72" (183 x 183 cm)	1.45" (36.8 mm)	36 sq. ft. (3.34 m ²)	Center
48" x 72" (122 x 183 cm)	1.245" (31.6 mm)	24 sq. ft. (2.23 m ²)	Center
48" x 60" (122 x 152 cm)	1.2" (30.5 mm)	20 sq. ft. (1.86 m ²)	Center
48" x 48" (122 x 122 cm)	1.1" (27.9 mm)	16 sq. ft. (1.49 m ²)	Center
38" x 48" (97 x 122 cm)	1.06" (26.9 mm)	13 sq. ft. (1.21 m ²)	Center
38" x 38" (97 x 97 cm)	0.9" (22.9 mm)	10 sq. ft. (0.93 m ²)	Center
38" x 60" (97 x 152 cm)	1.13" (28.7 mm)	16 sq. ft. (1.49 m ²)	Center
38" x 60" (97 x 152 cm)	1.5" (38.1 mm)	16 sq. ft. (1.49 m ²)	Off-center
Polystyrene foam-honeycomb composite			
72" x 72" (183 x 183 cm)	1.45" (36.8 mm)	36 sq. ft. (3.34 m ²)	Center
48" x 72" (122 x 183 cm)	1.3" (33.0 mm)	24 sq. ft. (2.23 m ²)	Center
48" x 48" (122 x 122 cm)	1.1" (27.9 mm)	16 sq. ft. (1.49 m ²)	Center
38" x 60" (97 x 152 cm)	1.1" (28.7 mm)	16 sq. ft. (1.49 m ²)	Center

Note: The thickness of the foam at the drain cut-out is 0.5" (12.7 mm).

ADDITIONAL INFORMATION

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,
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