

Tile & Stone Installation Systems

Applying sealers

The correct way to apply a sealer greatly depends upon the type of sealer being used and the type of surface being sealed. The methods used to apply sealer to a rough, textured and porous surface would be different than for a smooth, polished or dense surface. Penetrating sealers are applied differently than topical coatings. Incorrect application of either type can result in an incorrectly sealed, unattractive surface, potentially resulting in unnecessary and costly repairs.

Preparing to seal

Before applying a sealer, the surface must be clean, dry and free of all contaminants including, but not limited to, dirt, soil, rust, lime, waxes and previous treatments. All application equipment should also be clean and in good working, like-new condition. Refer to the product's current Technical Data Sheet (TDS) for proper surface preparation. Work in small, manageable areas of about 15 to 20 sq. ft. (1.39 to 1.86 m²), and protect all areas and surfaces from incidental or unintended contact with the sealer.

Most sealers can be applied using a lint-free wax applicator, lamb's wool applicator, microfiber applicator, brush, sponge, roller or a low-pressure, hand-pump type of sprayer, depending upon the type of surface being sealed. Choose the appropriate applicator for the surface that you are sealing. Rollers, brushes and sponges work best on porous and textured surfaces. Flat applicators work best on smooth, dense surfaces. Cotton or microfiber towels work best to absorb and buff off excess sealer from the surface.

For exterior applications, it is important to pay attention to the current weather conditions as well as forecasted inclement weather. It is also advisable to turn off automated sprinkler systems. Never apply sealer to a wet surface, during freezing conditions, or when rain or snow is imminent. Avoid applying sealers on windy and/or hot days because the wind can blow sand and other debris onto freshly applied topical sealers, and high temperatures can make sealers "flash dry," leaving streaks or other imperfections in the surface. Sealers usually have an ambient and surface temperature application range, so check the product's label and TDS for specifications.

For interior applications, be sure the A/C unit and/or heater is operating properly, to maintain an appropriate and constant interior temperature. Turn on floor-heating elements only if the floor surface is below the application temperature for the sealer. Refer to the product's current TDS for the ambient and surface temperature application range. Turn off fans to avoid blowing debris across the freshly applied sealer. Do not place fans blowing directly across a freshly applied topical sealer.

Applying penetrating sealers

Penetrating sealers can be applied in various ways. Perhaps the most popular method is a wipe-on, wipe-off application, where the product is applied to a manageable area of about 15 to 20 sq. ft. (1.39 to 1.86 m²).

On highly porous or textured surfaces, apply the sealer using a sponge, a brush, a 3/8" to 1/2" (10 to 12 mm) nap roller or a hand-pump sprayer. The initial application should be liberal and heavy, to ensure that an abundance of sealer saturates and penetrates into the surface. A "wet-on-wet" application may be necessary to achieve adequate protection, especially on highly porous surfaces. This can be accomplished by applying the first coat liberally and re-applying product immediately following the initial application, usually within 20 minutes. Remove any excess sealer that hasn't absorbed into the surface after 20 minutes of dwell time.

On smooth, polished or dense surfaces, apply the sealer using a flat applicator, such as a lamb's wool or microfiber applicator, rather than using a roller, brush or sprayer. This will help to avoid the application of too much product. On dense surfaces, apply sealer sparingly in a thin, uniform and even manner. Dense surfaces such as porcelain tile may only be able to accept one thin coat.

These are MAPEI's recommended penetrating sealers:

- *UltraCare*™ Penetrating Stone, Tile & Grout Sealer
- *UltraCare* Penetrating Plus Stone, Tile & Grout Sealer
- *UltraCare* Penetrating SB Stone, Tile & Grout Sealer
- *UltraCare* Penetrating Plus SB Stone and Porcelain Tile Sealer

Applying penetrating enhancers

Penetrating enhancers should be applied in the same way as penetrating sealers. Closely follow the above section on "Applying penetrating sealers" and your application will be successful. Always perform a mockup test in an inconspicuous area before application to determine suitability. Note: Once applied, penetrating enhancers cannot be removed.

These are MAPEI's recommended penetrating enhancers:

- *UltraCare* Enhancing Stone Sealer
- *UltraCare* Enhancing Plus Stone Sealer

Applying topical coatings

Apply topical coatings using a sealing applicator, sponge, roller or paint pad. Apply topical coatings slowly in a uniform and even manner, keeping a wet edge and leaving no puddles or voids. Instead of wiping off the excess, as with penetrating sealers, leave the applied material to dry onto the surface. Each subsequent coat will add layers of protection. Several applications of a topical coating may be needed to adequately protect the surface.

These are MAPEI's recommended topical coatings:

- *UltraCare* High-Gloss Sealer & Finish
- *UltraCare* Low-Sheen Sealer & Finish

Applying sealers to a vertical surface

Penetrating sealers and topical coatings can be used on vertical surfaces. However, due to the thin viscosity of tile and stone sealers, it is virtually impossible to avoid drips or cascading of the product during application. Unlike paint, tile and stone sealers are usually not thickened to help them "cling" onto a vertical surface without sagging.

To correctly apply a sealer to a wall or backsplash, start at the bottom and work your way up. This method will ensure that any drips or cascading material will touch only sealed areas, allowing you to spread out the drip lines as well as helping to avoid visible streaks and drip marks after drying. For penetrating sealers, avoid over-applying the product and be sure to remove the excess. As for topical coatings, it works best to apply multiple, thin coats to vertical surfaces.

When to re-apply sealers

Regardless of the surface that is being treated or the type of protection chosen, it will always be necessary to periodically reapply sealer over the life of the tile or stone in order to maintain an optimal level of protection. Reapplying sealer should become part of a regular maintenance program. The frequency of reapplying sealer should be directly related to the amount of wear and tear caused by pedestrian foot traffic, how often the sealed surface is cleaned and what cleaning agents are being used to clean the surface.

For penetrating sealers, a simple water droplet test will help to determine if a surface needs resealing. Simply sprinkle a little water over the area and look for it to penetrate into the surface. If it penetrates quickly, it's probably time to reapply sealer. If the droplets penetrate slowly or not at all, reapplication isn't needed.

For topical coatings, the appropriate time to apply more sealer is when traffic patterns begin to show on the surface and before the finish coating is worn down to bare tile. These areas are evident as a dull, worn appearance, usually appearing in the high-traffic and most frequently used areas such as kitchens, hallways,

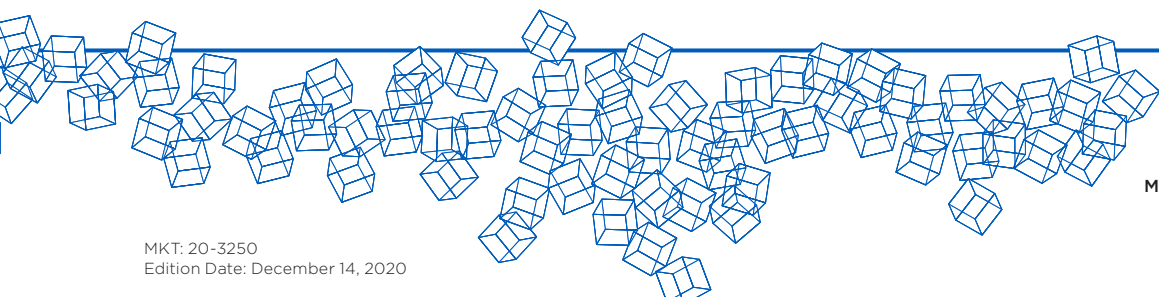
bathrooms and entryways. Make sure that the areas are clean and dry, and apply the coating only to the worn areas. Applying topical coatings to areas that are rarely used can result in a buildup of sealer in these areas. When a worn area is repaired, it is recommended to apply the sealer to a full tile, stopping at a common grout line if possible, and avoid applying sealer to only half of a tile.

Using maintenance products

Always check the sealer manufacturer's label for the best application methods and maintenance recommendations. Strong chemicals can severely affect penetrating sealers and can render them ineffective after only one cleaning. It is generally recommended to use a mild, neutral-pH cleaner designed specifically to maintain sealed natural stone and tile.

These are MAPEI's recommended maintenance products:

- *UltraCare* Concentrated Tile & Grout Cleaner
- *UltraCare* Everyday Stone, Tile & Grout Cleaner



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