

Shower System 4 LVT

System for waterproofing
and installing LVT in shower
tubs and wet environments



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Description

Shower System 4 LVT is a combination of products that allows installation of luxury vinyl tile (LVT) and other resilient coverings in showers, tubs and other wet environments. It includes a cement-based sloping material for shower pan creation; a premixed waterproofing and crack-isolation membrane; a one-component, modified-silane polymer-based adhesive; a resin-based grout; a resin-based grout smoother; and a two-component, aliphatic, anti-slip polyurethane finish.

Why use the system

Easy to install, this high-performance system provides superior waterproofing in wet areas where LVT finishes are required.

Where to use the system

Shower System 4 LVT can be used for waterproofing and installing LVT on walls and floors in shower cubicles, bathrooms, dressing rooms, wellness centers, medical offices, hospitals, hotels and wet environments in general.

System components

- **Planislope™ RS** is a rapid-setting, pre-blended, cement-based, polymer-modified mortar that includes a blend of select aggregates for use in sloping and thick-bed mortar installations. It only needs mixing with water to produce a mortar of exceptional strength. Used for preparing a substrate before the installation of tile and stone, *Planislope RS* is designed for pre-sloping under waterproofing membranes and mortar beds in showers when quick turnarounds are desired.
- **Mapelastic® AquaDefense** is a premixed, advanced liquid-rubber, extremely quick-drying waterproofing and crack-isolation membrane for installation under ceramic tile, stone and LVT in residential, commercial and industrial environments. It provides a thin, continuous barrier to protect adjacent rooms and floors below from water damage.



- **Ultrabond ECO® MS 4 LVT Wall** is a one-component, 100%-solids, silane-modified polymer adhesive specifically developed to bond LVT and replace conventional two-component reactive adhesives in all areas where this type of flooring is installed.



- **MAPEI Flexcolor® CQ** is a professional-grade, ready-to-use specialty grout for precision commercial and residential installations with porcelain, ceramic, natural-stone tiles and LVT. It can be used to grout interior/exterior tile, and its dense composition helps to prevent water-based stains by providing water repellency to the grout surface. *MAPEI Flexcolor CQ* is formulated with the latest innovation in quartz aggregate, which ensures color consistency, ease of cleanability and improved workability.
- **Mapesil® T Plus** is a professional-grade, 100%-silicone sealant with enhanced adhesion for use on multiple substrates. This product is specifically formulated for heavy traffic and expansion/movement joints exceeding both ASTM and ANSI standards.
- **Mapecoat™ 4 LVT** is a transparent protective matte (10 gloss) or semigloss (30 gloss) finish for LVT floor and wall coverings. It provides a non-slip finish with high resistance to wear on LVT flooring in residential and commercial surroundings, including areas subjected to high volumes of pedestrian traffic.

System limitations

- Do not install *Shower System 4 LVT* on crumbly cementitious substrates, old floors that are not well bonded to the substrate or surface treatments that impede a good bond.
- Do not use *Shower System 4 LVT* on surfaces continuously immersed in water, such asimming pools, fountains and storage tanks.

Surface preparation

Shower System 4 LVT can be applied onto new or existing substrates, as well as over ceramic tiles or natural stone, provided they are well bonded. Substrates must be cured, dry, stable, sound, clean and free of cement laitance, grease, oil, old paint, wax and any other substance that could compromise the bond.



Existing floor and wall coverings made of ceramic, porcelain, or natural stone tiles must be well bonded to the substrate and free from substances that could affect the adhesion of the membrane, such as grease, oil, paints and wax. To remove such substances, use suitable cleaning products and/or abrade the surface.

Uneven cementitious substrates or ceramic surfaces with wide joints need to be smoothed off and repaired using *Planiprep® 4 LVT*.

Preparation and application of the waterproofing membrane

Before applying *Mapelastc AquaDefense*, pay particular attention to corner joints between horizontal and vertical surfaces. In all cases, apply *Mapeband* cove roll and drain flashing, bonded to the substrate with the same *Mapelastc AquaDefense*.

Bonding, grouting and cleaning the LVT

After 12 hours from applying the final coat of *Mapelastc AquaDefense*, the surface is ready for laying LVT on floor and wall using *Ultrabond ECO MS 4 LVT Wall*. (Note: *Ultrabond ECO MS 4 LVT Wall* can also be used to bond LVT on shower floors.)

LVT can be placed with or without grout joints. When grout joints are requested, use traditional grout spacers for the desired appearance of grout lines. The joints must be dry, clean, free of dust and empty. Any

adhesive that has seeped into the joints while the LVT is being laid must be removed while it is still fresh.

Before grouting with *MAPEI Flexcolor CQ*, make sure that the adhesive has set. Spread *MAPEI Flexcolor CQ* over the surface of the LVT with a grout float, making sure that the joints are filled right down to the bottom. With the edge of the same float, remove excess material.

After grouting with *MAPEI Flexcolor CQ*, cleaning should begin after the surface develops a dry, skinned-over appearance – within 5 to 10 minutes, depending upon the temperature, humidity and absorption rate of the tile. Use a “clean as you go” approach to spreading and washing this grout, to ensure that cleaning begins before the grout skins over and dries on the tile surface. Grout small areas of between 30 to 40 sq. ft. (2.79 to 3.72 m²) at a time, so that cleaning can begin before the grout skins over and dries on the tile surface. Move a damp grout sponge or white scrubpad across the tile surface in a circular motion to loosen grout and to shape the joints. Drag a clean and damp sponge diagonally across the tile joints, applying slight pressure. Use one side of the sponge for each pass over the tile, rinsing the sponge after the second pass.

After the finishing procedure, it is very important that no traces of *MAPEI Flexcolor CQ* remain on the surface. Once hardened, the grout is very difficult to remove. Therefore, rinse the sponge often with clean water during cleaning.

Application of the anti-slip finish

From 12 to 24 hours after the application of *MAPEI Flexcolor CQ*, apply one coat of *Mapecoat 4 LVT* to seal the joints and provide a non-slip finish on the flooring surface. If the LVT was installed without grout lines, then *Mapecoat 4 LVT* can be applied 12 to 24 hours after the LVT has been bonded using *Ultrabond ECO MS 4 LVT Wall*. The surface must be clean and dry, with no traces of oil, wax or any other contaminant. Scrub the entire surface of the exposed LVT using a Scotch-Brite pad to remove contaminants and to improve bonding before the application of *Mapecoat 4 LVT*. Remove any waste material or traces of adhesive that could affect adhesion to the surface.

To mix *Mapecoat 4 LVT*, shake Part A before use and pour it into a suitable clean mixing container. Add Part B at a ratio of 5-to-1 ratio (by weight) of Part A to Part B. Mix thoroughly until completely blended. Apply the mixture within 2 hours of blending. Let the product stand for 5 to 10 minutes before applying one coat with a 1/4" (6-mm) nap roller.

Floors can be subjected to light foot traffic after 16 hours and showers can be put in service after 24 hours. Expansion/movement joints must be sealed with *Mapesil T* after the application of *Mapecoat 4 LVT*. In any case, follow the instructions in the Technical Data Sheets for the products mentioned above.

Technical data of system components



Planislope RS

Application temperature range	45°F to 95°F (7°C to 35°C)
VOCs (Section 01350 of California's CDPH)	Passed
VOCs (Rule #1168 of California's SCAQMD)	0 g per L
Pot life at 68°F (20°C)	25 to 30 minutes
Color	Gray
Cleanability	With water while fresh
Compressive strength at 28 days – ASTM C109	4,000 to 5,000 psi (27.6 to 34.5 MPa)



Mapelastc AquaDefense

Viscosity	Approximately 30,000 cps
Density	1.3 g per mL
Weight	10.9 lbs. per U.S. gal. (1.3 kg per L)
Flash point (Seta flash)	Nonflammable
Physical state	Liquid
Color	Medium green when wet; dark green when dry
VOCs (Rule #1113 of California's SCAQMD)	0 g per L
Drying time between first and second coats	When light green and dry to the touch
Drying time after second coat (before applying LVT)	About 30 to 50 minutes (when light green and dry to the touch)
Drying time before flood-testing	After 12 hours
Final dry thickness (2 coats)	About 20 mils at minimum (about credit-card thickness)



Planiprep 4 LVT

Consistency	Thick paste
Color	Beige
Density	15.02 to 15.5 lbs. per U.S. gal. (1.80 to 1.85 g per cm ³)
VOCs (Rule #1168 of California's SCAQMD)	< 20 g per L
Application temperature range	50°F to 95°F (10°C to 35°C)
Ready for light foot traffic	2 to 3 hours
Waiting time before sanding and bonding LVT	2 hours



Ultrabond ECO MS 4 LVT

Consistency	Smooth paste
Color	White
Density	11.4 lbs. per U.S. gal. (1.5 g per mL)
VOCs (Rule #1168 of California's SCAQMD)	0 g per L
Application temperature range	50°F to 90°F (10°C to 32°C)
Ready for light foot traffic	5 hours
Ready for heavy traffic	24 hours

Technical data of system components (continued)

MAPEI Flexcolor CQ



Consistency	Heavy paste
Colors	Available in MAPEI's palette of 40 colors organized into 5 color collections
VOCs (Rule #1168 of California's SCAQMD)	44 g per L
Shelf life	18 months at 73°F (23°C) and 50% relative humidity if unopened and if opened but stored with a closed lid

Mapecoat 4 LVT



Mixing ratio of Part A to Part B	5 to 1
Dry to touch	After 50 to 60 minutes
Recoating	24 to 48 hours after initial application
Ready for light foot traffic	16 hours
Ready for use (also in contact with water in shower)	24 hours
Gloss levels	Matte (10) and semi-gloss (30)
Slip resistance, DCOF ratings – ANSI A326.3-2017 and TCNA-0344-20	Dry: 0.75 to 0.77 Wet: 0.47 to 0.50

Mapesil T Plus



Solids content	100% silicone
VOCs (Rule #1168 of California's SCAQMD)	≤ 50 g per L
Shelf life	18 months when stored in original, unopened packaging
Full cure	28 days depending on ambient temperature, substrate temperature and humidity
Service temperature range	-60°F to 400°F (-51°C to 204°C)
Colors	Available in 43 colors. Refer to MAPEI's grout/caulk color palette.





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