

Installing LVP and LVT on walls

Preparation for installation

Since its introduction in the market over 40 years ago, vinyl tile has been mainly used for floors. However, over the past five years, there appears to be a slow but growing trend within the design community for the use of luxury vinyl plank (LVP) and luxury vinyl tile (LVT) on walls.

This installation guide will assist designers and specifiers in selecting the proper materials. The guide also includes step-by-step instructions, recommended tools, valuable tips and proven techniques to help contractors and installers avoid common pitfalls when installing LVP and LVT vertically.

Materials needed

- Quality-brand LVP or LVT with a flat, smooth backing
- Appropriate wall-patching compound (contact MAPEI's Technical Services Department for product recommendations)
- MAPEI's *Primer T*[™] (diluted at 1 part of *Primer T* to 2 parts of water)
- MAPEI's *Ultrabond ECO*[®] 350, *Ultrabond ECO* 360, *Ultrabond ECO* 373, *Ultrabond ECO* 560 or *Ultrabond ECO* 962 adhesive
- MAPEI's *Keracaulk*[™] S or *Keracaulk U* (optional)

Tools required

- Carpenter's pencil
- Tape measure
- Carpenter's level
- Steel straight-edge
- Painter's tape
- Plastic sheeting
- 3/8" (10 mm) nap paint roller
- Laminate roller
- 1/16" x 1/16" x 1/16" (1,5 x 1,5 x 1,5 mm) square-notched trowel
- Vinyl tile cutter or a sharp utility knife
- Damp sponge
- Caulking gun (for applying *Keracaulk*)

Limitations

- The instructions in this guide are for interior installations only.
- Do not install vinyl tile over any substrates containing asbestos.
- Do not install vinyl tile over any substrates containing lead.
- Do not install vinyl tile that has highly textured backings.
- Do not install vinyl tile that weighs more than 1.2 lbs. per sq. ft. (5,85 kg per m²).
- Do not install vinyl tile with known dimensional stability issues.
- Do not install vinyl tile over oil-based paint; wallpaper; vinyl wall coverings; laminates; existing ceramic, porcelain or natural stone tile; metal; or other nonporous surfaces.
- Do not use MAPEI adhesives to install peel-and-stick or self-stick vinyl tile.
- Wall installations are not recommended for VCT (vinyl composition tile).
- Unless otherwise recommended by the vinyl tile manufacturer, do not install vinyl tile near an open flame or a high heat source (for example, the front of a fireplace or a backsplash behind a stove) or on any substrate that will exceed temperatures of 100°F (38°C).

Suitable substrates

- Water-based paint over existing gypsum wallboard
- New gypsum wallboard primed with *Primer T*
- Concrete walls (above grade), fully cured and free of moisture issues
- Cement-block masonry walls (above grade), fully cured and free of moisture issues
- Gypsum-based and cement-based wall-patching compounds that are hard, durable, well-bonded and fully cured

Contact MAPEI's Technical Services Department for recommendations regarding substrates and conditions not listed. For details, see the "Surface Preparation Requirements" reference guide in the Reference & Installation Guides section of the Floor Covering Installations Systems page on MAPEI's Website.

Surface preparation

- All substrates must be structurally sound, dry, solid and stable.
- The substrate should be clean and free of dust, dirt, oil, grease, wax, soap, existing adhesives and adhesive residues, and any other substance that may prevent, reduce adhesion or affect product performance.
- All substrates must be plumb and flat to a tolerance in plane of 1/8" (3 mm) in 8 feet (2,44 m).
- All surfaces must be smooth and free of defects, voids, deviations, imperfections and irregularities.

Step-by-step instructions

Step 1: Conditioning of the vinyl tile

Always refer to the vinyl tile manufacturer's guidelines regarding site conditions and proper conditioning of vinyl tile including acclimation requirements.

Step 2: Protect adjacent areas

Cover floors, countertops and any nearby surfaces with plastic sheeting and painter's tape in order to avoid adhesive spills and splatters on these surfaces.

Step 3: Inspect, patch and prepare the walls

Carefully inspect walls for surface defects such as voids, deviations, imperfections and irregularities. Countersink any protruding screws. Use an appropriate patching compound to cover screw heads and correct any holes, bumps, cracks, depressions, etc.

Tip: Surface defects will transfer up through the vinyl surface, so surface preparation is essential in order to achieve an aesthetically pleasing project.

Step 4: Prime the walls

Apply *Primer T* (diluted at 1 part of *Primer T* to 2 parts of water) to the wall using a 3/8" (10 mm) nap paint roller.

Step 5: Measure the wall and plan the layout

Measure and mark the horizontal and vertical center lines of the wall. Using a carpenter's level, verify that the horizontal line is level and make adjustments as needed. Take time to carefully plan the layout.

Tip: When installing wood-look LVP, the planks should be staggered to offset the end joints similar to the way that a professional wood flooring installer would lay out (i.e., "rack") a real wood floor. This will help to mimic the realistic look of genuine wood.

Step 6: Pre-fit the tile

Measure, dry-fit and pre-cut vinyl tiles to the wall area.

Tip: Always measure twice and then cut once.

Step 7: Read the Technical Data Sheet (TDS) for the adhesive

Carefully read the TDS for the adhesive selected. Pay close attention to flash times and open times.

Step 8: Apply the adhesive

Apply the adhesive smoothly and evenly starting from the lower section of the wall, moving upwards. A 1/16" x 1/16" x 1/16" (1,5 x 1,5 x 1,5 mm) square-

notched trowel is recommended. Leave a 1/4" (6 mm) gap around the wall to allow movement (expansion) including corners, changes of plane (transitions from floor to wall) and any dissimilar surfaces. Avoid applying more adhesive than can be installed into within the stated open time.

Tip: Set a timer for the stated flash time as a reminder for checking whether the adhesive is ready to receive the vinyl tile.

Step 9: Install the vinyl

Set the tile into the adhesive and immediately follow by rolling with a laminate roller. Continue to gently place the vinyl tiles in position, building upwards. Temporary supports are typically not necessary to hold the vinyl tile in place while the adhesive is drying. If the vinyl tile is shifting/sliding and not staying in place, the vinyl tile may be too heavy (more than 1.2 lbs. per square foot or more than 5,85 kg per square meter) or the adhesive may not have been given enough time to sufficiently flash.

Tip: Keep a damp sponge nearby for quick cleanup in case adhesive is dropped on the tiles or any other surfaces.

Tip: When rolling the vinyl tile with the laminate roller, roll from the inner portion of the LVP or LVT outward. This technique helps to eliminate air pockets and ensure that the vinyl tile is making contact with the adhesive.

Step 10: Cleanup

Clean off all adhesive residue from the face of the vinyl tile while the adhesive is still fresh/wet. Clean all tools with water while the adhesive is still fresh/wet.

Step 11: Complete the installation

Apply *Keracaulk S* or *Keracaulk U* to fill in joints between the wall and floor, similar movement joints, and gaps due to changes of surface or changes of plane.

Tip: Before caulking, place painter's tape in a straight, clean line on both sides of the joint. Apply *Keracaulk*, smooth the joint evenly and then immediately pull off the tape before the caulk firms up.

Step 12: Protect the installation

Protect the area from use and avoid disturbing the tile. Refer to current Technical Data Sheets for adhesive drying times.

Tip: Building owners should be aware of the vinyl tile manufacturer's guidelines for climate-control settings (temperature and humidity). These conditions must be monitored and kept constant to ensure the overall performance and long-term success of the installation.

Important

LVP, LVT and similar products should be tested according to ASTM E84, NFPA 286 and/or any other relevant standard in order to determine code compliance and fitness for the intended purpose and use. MAPEI's recommendations do not pertain to the suitability of LVP, LVT and similar products used as interior finishes on walls or ceilings with regards to fire, flame spread, smoke, or any other related flammability characteristics. Care should be taken to ensure that any installation of LVP, LVT and similar products on walls meets all applicable federal, state/provincial and local codes as well as other requirements.

Definitions

Groutable LVP/LVT = Luxury vinyl tile in plank or square format that is designed to be grouted with a premixed acrylic-based grout in the joint areas.

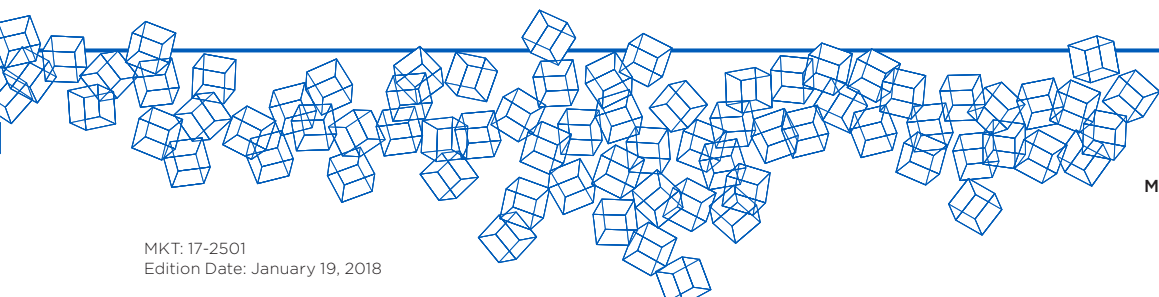
LVP = Luxury vinyl plank, or vinyl tile in plank format. Typically, the surface has a printed pattern that is meant to resemble boards of real wood flooring.

LVT = Luxury vinyl tile in square format. Printed patterns often resemble natural stone such as marble or slate.

Peel-and-stick or self-stick vinyl tile = Vinyl tile that has a pre-applied adhesive on the backing.

VCT = Vinyl composition tile, made from a combination of limestone, vinyl and other ingredients. It is typically used on floors in schools and grocery stores and is designed to be waxed as part of a maintenance procedure.

For more information, contact MAPEI Product Support at 1-800-992-6273 (U.S. and Puerto Rico) or 1-800-361-9309 (Canada).



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