Can I install tile over sheet vinyl?

While ceramic and porcelain tile can be installed over existing noncushioned sheet vinyl that is glued throughout (not perimeter-glued), the installation can be unreliable. Moisture beneath the sheet vinyl can reemulsify sheet vinyl glues, which can result in separation of the vinyl from the subfloor. As the moisture level continues to rise, it can cause the entire floor covering to delaminate, pushing the tile up with it.

Other risks are involved. Ceramic and porcelain tiles expand and contract due to naturally occurring causes at different rates than sheet vinyl does. As individual tiles expand and contract, they pull and stretch the sheet vinyl, which triggers stress on the entire installation. At seam areas, it is even possible for the sheet vinyl to be pulled away from the subfloor due to the strong tension caused by tile movement.

Although manufacturers are recommending single-component polymer-modified mortars for tile over sheet vinyl, these products do not provide the maximum flexibility needed to help keep tile in place when the sheet vinyl moves. For this reason, when installing tile over sheet vinyl, it is better to use MAPEI’s installation systems specially designed to increase stability – such as Mapelath™ with Ultracontact™ or Ultracontact RS – or MAPEI’s premium mortar systems offering maximum flexibility – such as the Kerabond/Keralastic™ system or Granirapid® system.

Note: These recommendations refer to single-layer sheet vinyl only.
How should I prepare existing sheet vinyl surfaces?

Existing noncushioned sheet vinyl that is glued throughout (rather than perimeter-glued) should be slightly roughened to provide a good “bite” for the mortar. This can be accomplished by lightly sanding the surface layer with 60-grit sandpaper. The top layer should remain intact, and the underlying sheet-vinyl paper should not become exposed.

If the vinyl was installed before 1972 or contains asbestos, it should not be sanded. Instead, a commercial-grade wax stripper should be used to remove any wax, residue or dirt buildup. The affected area should be neutralized well and allowed to dry completely.

If the existing sheet vinyl is loose, damaged or coming apart, it should be fully removed. Any traces of adhesive residue remaining on the subfloor also should be removed.

It should be noted that old linoleum is not a dimensionally stable substrate for the installation of ceramic tile. Real linoleum has a base of linseed oil. This oil may cause a bond-breaking barrier for any adhesive or primer.

Note: These recommendations refer to single-layer sheet vinyl only.

What if the sheet vinyl is over concrete?

The sheet vinyl must be properly prepared and well-bonded over a structurally sound concrete slab. Tile can be installed over such sheet vinyl using one of MAPEI’s premium two-component mortar systems – MAPEI’s Kerabond™ mixed with Keralastic™, or MAPEI’s Granirapid powder mixed with Granirapid liquid.

The Kerabond/Keralastic system or Granirapid system should be trowel-applied over the properly prepared sheet vinyl using a notched trowel with enough notch depth to ensure good contact and coverage. Tile should be immediately set into the wet mortar. MAPEI’s liquid latex tile-setting systems provide excellent adhesion when used to install tile over sheet vinyl.

For details, see the Technical Data Sheets for Kerabond, Keralastic and Granirapid.
What if the sheet vinyl is over a wood subfloor?

The sheet vinyl must be properly prepared and well-bonded over a solid stable wood subfloor – two layers of exterior-grade plywood at 1-1/4” (3.2 cm) thickness. Tile can be installed over such sheet vinyl by using one of MAPEI’s premium two-component mortar systems (Kerabond/Keralastic or Granirapid) as described above or using MAPEI’s Mapelath with Ultracontact or Ultracontact RS to prepare the subfloor.

When using the Mapelath synthetic lath, first staple it through the sheet vinyl and into the plywood subfloor according to instructions. Next, mix MAPEI’s Ultracontact or Ultracontact RS (rapid-set) full-contact mortar with water. Flat-trowel the mortar over the Mapelath to fill ridges and immediately comb the material with the trowel’s notched side. Finally, set the tile into the wet mortar. When installed properly, this unique combination creates an excellent bond with the subfloor.

For details, see the Technical Data Sheets for Mapelath, Ultracontact and Ultracontact RS.