

## Why does my new limestone tile floor smell musty?

**Q:** We are building a new house in South Louisiana. We have a concrete slab with concrete piers on top. My tile installer used a polyethylene membrane with thinset directly over the plywood subfloor. We installed a honed limestone tile. Now that everything is grouted, the room (laundry room) smells like musty cement. What could be causing this smell? The installation was done three days ago. Also, when should I seal the tile, and do you recommend a specific sealer?

**A.** Concrete slabs in humid regions like South Louisiana can transmit ground moisture if they aren't properly vapor-sealed. Verify with your builder that there is a vapor barrier beneath the slab, that the slab was properly dried before construction continued, and that the piers were set up properly to inhibit moisture and humidity from entering the tile assembly from below.

If moisture from the slab has no way to escape, it will lead to a damp subfloor and a musty smell.

When polyethylene membranes are installed over plywood, the correct bonding agent is usually **modified** thinset mortar (an ANSI A118.11-compliant mortar) or a specific type of adhesive approved by the membrane manufacturer. Did the installer use standard **unmodified** thinset? If so, this may have created a non-breathable layer that is trapping moisture.

Try running dehumidifiers and your air conditioner, which also dehumidifies, for several days to help reduce the smell.

An experienced, reputable flooring or stone PRO can test the moisture levels in the slab and subfloor using a moisture meter or RH test. This will help determine if moisture is still present in the system. If the smell persists and

moisture is confirmed, your PRO may need to remove a small section of tile in an inconspicuous area to inspect what's going on underneath—whether it's damp plywood, improper bonding, or mildew. A qualified professional can evaluate whether the tile system can be salvaged or whether partial reinstallation is necessary. Unfortunately, if moisture is trapped beneath the membrane or plywood is compromised, spot treatments won't resolve the underlying problem.

To find a vetted PRO in your area, visit [www.surfacecarepros.com](http://www.surfacecarepros.com) and click on **Find a PRO**.

We do not recommend any sealer application at this time, because it may exacerbate the situation or cause long-term issues.

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