



TERRAZZO AND VAPOR BARRIERS

International Masonry Institute

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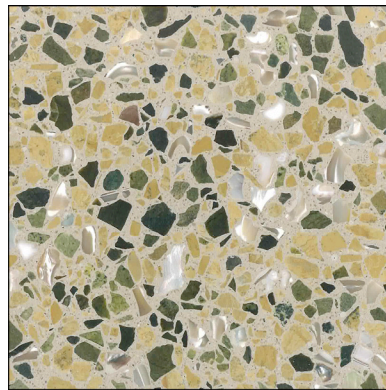
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Controlling Moisture is Critical



The evolution of terrazzo from a cementitious system to epoxy brings a new concern: controlling moisture. While the cement system developed centuries ago allowed moisture to naturally migrate from the ground or concrete slab and then escape, epoxy-based terrazzo systems do not breathe. That means that if the concrete slab or space below is not controlled, and moisture rises up, epoxy terrazzo will usually fail.

Epoxy terrazzo has many advantages, including wider color selections, lighter weight, thinner pours (1/4" to 3/8"), higher strength, and faster installation. Epoxy also offers creative options for aggregates, such as mother of pearl, abalone shell, and recycled glass, tile, porcelain and concrete.

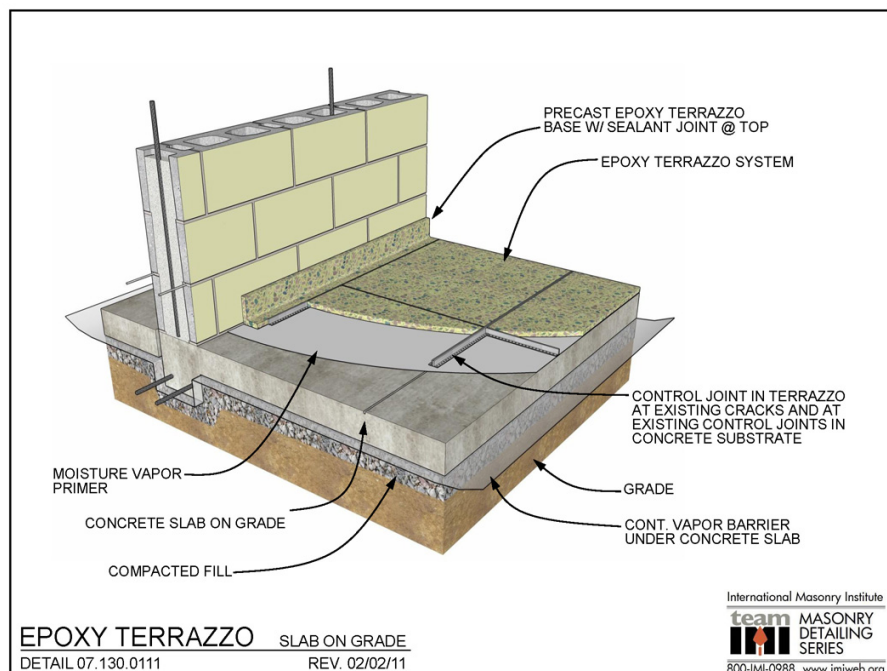
For an epoxy terrazzo installation, the first step is to determine the moisture content of the slab. One method is the Moisture Vapor Emissions Rate (MVER) test, which weighs calcium chloride before it is exposed to the slab and then after 60-72 hours, with the difference indicating the moisture content. Many installers favor using in-situ probes that test for temperature and relative humidity of the slab. The test holes are sleeved and then capped for a minimum of 72 hours to permit the test hole to acclimate before measurements are taken. (ASTM F2170).

Tips for Controlling Moisture in Epoxy Terrazzo

When an epoxy thin-set terrazzo finish is specified, the following steps are recommended, in addition to manufacturer recommendations:

- ☐ Have a Pre-Pour Conference of all vested trades, before the concrete slab is poured.
- ☐ Verify the manufacturers recommended temperature and humidity requirements for both the slab and the space where the terrazzo will be installed.
- ☐ Install a reinforced vapor barrier equal to or greater than ASTM E-1745 15 mil directly under the slab.
- ☐ Cure the concrete slab for at least 30 days. More time is better, and a 7-day wet cured slab in lieu of curing compounds is preferred.
- ☐ Shot blast or grind the concrete slab with a 24-grit aggregate.
- ☐ A Moisture Vapor Primer is available if needed.
- ☐ During terrazzo installation the interior environment should be close to occupancy conditions, with the relative humidity of the slab below 80% (unless a manufacturer has lower requirements).
- ☐ Allow for a crack isolation membrane based on 10% of the overall square footage.

Note: If propane was used as fuel for heating during construction or is the fuel source for the building, the additional moisture content of the heat may yellow the terrazzo.



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