



# HEAVY COMMERCIAL

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INSTALLATION GUIDE



## CHALLENGE

As environmental conditions change, so do substrates. Changes in temperature and moisture can cause substrates to expand, contract and even crack. When the right installation materials are chosen, and they work as one system from subfloor to sealant, tile installations withstand movement and become longer-lasting spaces. Carefully selecting the right installation materials becomes even more critical when an installation will be subjected to heavy wheel loads and foot traffic, as is often the case in hospitals and car dealerships.

## SOLUTION

Choose a crack isolation product suited to the demands of the installation environment. Waterproofing and crack isolation membranes address existing problems in the substrate, and help prevent future issues from affecting the tile installation. Waterproofing and crack isolation membranes isolate existing substrate cracks to prevent in-plane cracks in the subfloor from telegraphing to tile. That way, movement beneath the installation surface will not affect the appearance of the tile or stone installation.

**TEC® HydraFlex™ Waterproofing Crack Isolation Membrane** helps protect important installations from cracking and moisture damage, even under the most demanding circumstances. Rated for extra heavy commercial use, it



TEC® HydraFlex™ stops cracks up to ¼" from transferring from the substrate through the tile or stone.

passed level 14 of the ASTM C627 Robinson Floor Test. This test measures the durability of the entire tile system. Level 14 of the Robinson Floor Test (the highest level achievable) requires a system to sustain a rotational rolling load with 300 pounds on each of three wheels for thirty minutes without cracking—totaling 450 rotations of 900 pounds on the steel wheels.

Look for a product, like, TEC® HydraFlex™, that meets or exceeds ASTM C627 performance requirements of your installation.

TEC® HydraFlex™ Waterproofing Crack Isolation Membrane also mitigates or prevents the cracking associated with changing moisture levels. Because it stops cracks up to 1/4" from transferring from the substrate through the tile or stone, shifts in the subfloor will not affect the appearance of stone and tile installations. It exceeds ANSI A118.12 Specifications for Crack Isolation Membranes. Since it can be installed over new (green) concrete as little as 3 days old, using this product improves not only the quality of installations, but the speed as well by meeting strict timelines.

## IMPLEMENTATION

TEC® HydraFlex® cures in just two to three hours, so it can be used as a crack isolation membrane without slowing the pace of an installation. The approved substrate must be free of contaminants and surface protrusions and tile glazes should be abraded by sanding, scraping or scarifying. Remove all dust produced during surface preparation by vacuuming, and clean the



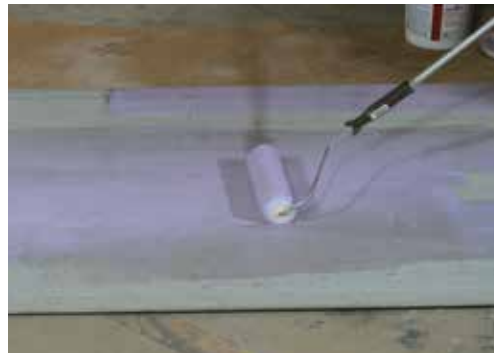
Make sure the substrate is clean and contaminant free.

Installation Method EJ171 in the Tile Council of America handbook. Treat dynamic cracks greater than 1/4" wide as expansion joints.

concrete floor with a wet sponge if necessary. Patch and fill holes and voids with an appropriate TEC® surface preparation product. (Let the floor dry completely before applying the membrane.)

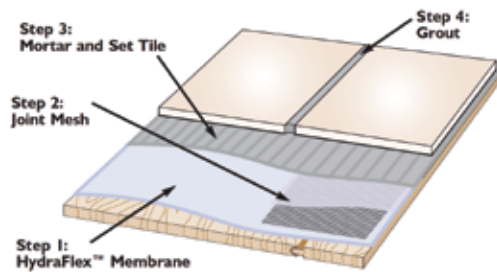
Pre-fill any concrete cracks, control joints and plywood gaps up to 1/8" wide with the membrane. Continue expansion, isolation and construction joints through the tile installation in accordance with

Apply the membrane at 50 mil. wet film thickness over the entire surface using a nap roller between 1/4" and 1/2", a 3/16" v-notch trowel or an airless sprayer. Measure the membrane periodically with a wet thickness gauge to ensure a minimum thickness of 50 mil., which should cure to a dry film thickness of 30 mil. One properly applied coat should be sufficient to achieve required thickness.



You can apply TEC® HydraFlex™ with a 1/4"-1/2" nap roller at a minimum thickness of 50 ml.

Allow the product to cure for two to three hours, noting that thicker films, cooler temperatures, higher humidity or green concrete will extend cure times. Install tile using a suitable TEC® latex-modified mortar. Both [TEC® Ultimate Large Format Tile](#) and Full Flex® Premium Thin Set Mortar are rated for heavy commercial use, with the appropriate substrate. [TEC® Power Grout](#), which is also rated for heavy commercial applications, finishes off floors with strong grout joints. It exceeds ANSI A118.7 specifications and provides excellent performance in virtually any environment, including high traffic and wet conditions, and in residential and commercial tile grout applications.



Specify these products to help your project withstand heavy loads and foot traffic.

TEC® HydraFlex can also be used to provide waterproofing, as part of the TEC® Single Layer Floor System.

Visit [tecspecialty.com/project-showcase](https://tecspecialty.com/project-showcase) to discover contractor testimonials and high-profile projects featuring TEC® HydraFlex in heavy commercial installations.