



Rapid Setting Tile Installation Solutions for Time Critical Projects

At one time or another, every tile contractor will eventually have a project that requires tile to be installed in a matter of hours – not days. A highly compressed tile installation timeline might be pre-scheduled, but it can also happen due to other situations that develop on the job. Even with the best planning, every installer and specifier needs to know how to incorporate a rapid-setting tile installation system to minimize downtime.

Any delay in a commercial project opening for business or returning to service can be very costly to all involved. During renovations, high-traffic retail or public spaces generally require overnight shifts to prevent disrupting customers. Rapid-setting installation products allow the contractor to deliver a newly tiled space that is ready for traffic the next day. No loss of business is a wonderful benefit to offer any end user.

*By Steve Taylor
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CUSTOM[®]

CUSTOM is committed to the ongoing pursuit of offering innovative products that solve the challenges faced by contractors every day.



THE SOLUTION: RAPID SETTING SYSTEMS

To meet the widespread need for a fast return to service, CUSTOM has developed a complete system for fast track installations of ceramic and natural stone tile.

- Rapid-setting self-leveling underlayment
- Easy-to-install membranes for crack isolation and waterproofing
- Early high-strength bonding mortars
- Quick-curing grouts
- Fast-drying care products

Not all rapid-setting products are created equal. Some are based on simple acceleration of the Portland cement hydration process and will shorten the set time, but will not develop enough strength to allow early traffic. American National Standards Institute (ANSI) requires dry-set tile installation mortars to achieve shear bond strength greater than 50 psi in 4 hours.

CUSTOM is committed to the ongoing pursuit of offering innovative products that solve the challenges faced by contractors every day. For example, rapid-setting products engineered with Controlled Cure Technology™ incorporate advanced polymers to promote faster hydration. This technology allows CUSTOM's rapid-setting formulas to build strength quickly, allowing traffic in a few hours, rather than days.

SURFACE PREPARATION

Despite the need for speed, every substrate must be properly prepared before installing tile. This is often the most time consuming step of the job. Selecting the right surface preparation products will deliver a stable, level and flat surface that supports rapid installation of the tile.

For ceramic, porcelain or stone tile, the floor flatness should not vary more than 1/4" in 10 feet. Large format tile, with one side greater than 15 inches, has more stringent requirements. These large tiles require a substrate with no more than 1/8" variation in 10 feet. To achieve true floor flatness, use a self-leveling underlayment such as CUSTOM's LevelQuik® RS (Rapid Setting) Self-Leveling Underlayment. LevelQuik RS can be mixed, poured, leveled and walked on in less than 4 hours.

If crack isolation is required, self-bonding Crack Buster® Pro Crack Prevention Mat is ideal for high-speed installations. To add waterproofing as well as crack protection, use SpiderWeb® II Uncoupling Mat. Both of these surface preparation mats can accept mortar and tile immediately after placement.





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RAPID TILE SETTING

Selecting the right dry-set mortar will also speed the installation of tile. There are hundreds of mortars to choose from and selection should not be based on budget alone. For those jobs when an installation must be completed quickly, CUSTOM offers a full range of rapid-setting dry-set mortars meeting ANSI requirements.

- MegaLite® Rapid Setting Crack Prevention Mortar is formulated for the installation of large and heavy tiles and meets the requirements of ANSI A118.15FTE. It has excellent support for vertical surfaces and extended open time for use in warmer environments. High bond strength and flexibility make this an excellent choice for the suspended floors found in malls and airports.
- Complete Contact-LFT Rapid Setting Large Format Tile & Stone Mortar is uniquely formulated to improve the coverage on the back of tiles installed on floors. The mortar will flow under slight pressure to fill in the gaps between trowel ridges and completely wet out the back surface of the tile. This mortar meets the requirements of ANSI A118.15FE and helps the installer achieve full mortar coverage for demanding, high-speed installations.
- ProLite® Rapid Setting Large Format Tile & Stone Mortar meets the requirements of ANSI A118.15FT. This lightweight mortar is easy to place on vertical surfaces as well as floors, and holds large and heavy tiles in place without mechanical assistance.

ProLite and MegaLite are both formulated with recycled content and have no VOCs. As Build Green® and Emerald System™ products, they help the project comply with LEED or other environmental sustainability requirements.

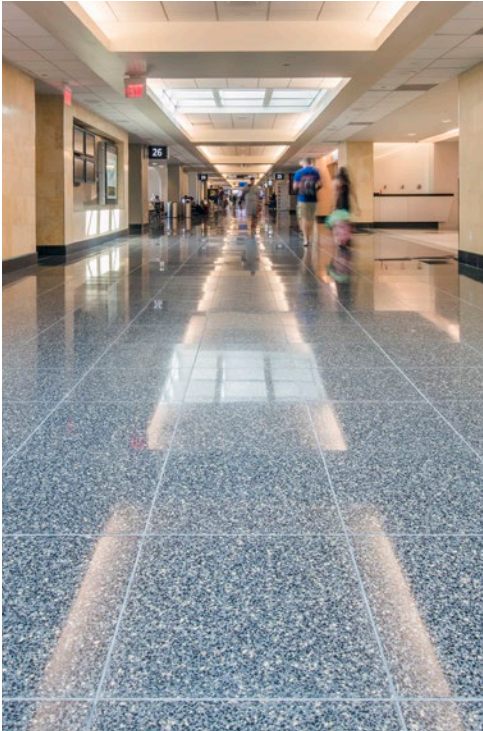
All of these rapid-setting mortars are designed to provide adequate time for the installer to spread the mortar and place the tiles with acceptable open and adjustment time. However, the products harden quickly, so it is important not to mix too much at one time. Only mix what can be used in 45 minutes or less.

CUSTOM's dry-set mortars can all be used to install large and heavy tile and can be applied up to 3/4" thick if necessary to fill the gap between the tile and substrate. Since the cure is a chemical reaction, it is completely independent of the thickness applied and will still cure quickly under large and heavy tiles.

FAST CURING GROUT

Once the tiles are installed with a rapid-setting mortar, grouting the joints between the tiles can begin in just a few hours. Since it is important that the grout is also ready for traffic, you will want to use a quick-curing formula.

Prism® SureColor® Grout is a fast-setting, polymer-modified grout that allows for accelerated installation. Most cement-based grout is slow to cure if the



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environment is cold or damp. This holds up the installation process while the installer waits for the grout to stiffen enough to properly dress the joints and clean the tile. Prism uses Controlled Cure Technology, so it sets up quickly and allows the area to open up to traffic sooner. When Aqua Mix® SameDay™ Grout Sealer is applied, the area can be opened up to traffic in as little as 4 hours.

If unsurpassed stain resistance is desired, Fusion Pro® Single Component® Grout is fast and easy to install. With Fusion Pro, the installer can begin cleaning the tile assembly immediately instead of waiting for a traditional cement-based grout to set. Installing Fusion Pro also eliminates the step of returning to seal the grout joints.

CEG-IG™ 100% Solids Industrial Grade Epoxy Grout is an excellent choice for installations requiring higher chemical and heat resistance. CEG-IG cleans up quickly with just water and offers a fast cure time. It has the chemical resistance to hold up to the demanding cleaning regimens and harsh chemicals often found in commercial kitchens and food processing plants.

When Prism or CEG-IG grout are used as part of a rapid-setting installation system, it's possible to open to foot traffic just a few hours after grouting. These grouts cure to a uniform color throughout the installation and will not contribute toward efflorescence.

THE RIGHT PRODUCTS FOR THE RIGHT INSTALLATION

The installation of ceramic, porcelain and natural stone tile does not need to take as much time as tradition might dictate. With the right products, an experienced installer can set even large format tile quickly with the same beautiful results as a traditional tile installation.

When time is money, a rapid-setting tile installation system can actually reduce the overall cost to the end user. Many CUSTOM rapid-setting installation products are covered by a Lifetime System Installation Warranty when qualifying products are selected based on jobsite conditions.

When the tile has to be installed quickly, look to CUSTOM and call on CUSTOM Technical Services for help selecting the right products for the job.

ABOUT THE AUTHOR

Steve Taylor is Director of Architecture and Technical Marketing for Custom Building Products and has more than 30 years of experience developing products for the construction industry.

Steve is a member of the Tile Council of North America (TCNA) and Materials & Methods Standards Association (MMSA). In these roles, he helps to determine proper tile installation methods and standards. This includes simplifying the tile installation process to save tile professionals time and money.