



Commercial Kitchens (Back of House) and Industrial Applications Grouting Solutions

TDS 258

GENERAL CONDITIONS

Degradation or deterioration of traditional grouts in commercial kitchen and industrial applications is a fairly common occurrence. Typically, degradation occurs when the circumstances are right or when the wrong grout type is used in areas subject to extreme conditions. Degradation or deterioration of portland cement based grouts is a more common occurrence in harsh commercial and industrial applications or areas exposed to chemicals.

In addition, not all epoxy grouts are made the same. While SPECTRALOCK® 2000 IG may not be necessary for a residential kitchen floor, SPECTRALOCK PRO Premium Grout* (and other similar ANSI A118.3 compliant epoxy grouts) would not be recommended for use in a dairy, full service commercial kitchens or other installations exposed to extreme conditions.

Deterioration of grouts can be caused by chemical erosion, extreme temperatures and even bacterial attack. The best defense against harsh chemicals, the use of no-rinse cleaners, extreme conditions or exposure to bacterial attack is to use high performance epoxy grouts designed for use in these demanding environments. LATICRETE® SPECTRALOCK 2000 IG, in #22 Midnight Black, is the best product to use for optimal performance in these harsh environments.

If an epoxy grout, with less performance quality, or a portland cement based grout is utilized, degradation will occur. The following is a review of the typical grout types available in the marketplace and the pros and cons of their use in these applications:

GROUT TYPES

I. Cement Based / Polymer Fortified Cement Based Grouts

The most common grout used in the tile industry is a cement-based or polymer fortified cement-based type. These grouts are typically mixed with water or a liquid latex additive and are comparatively inexpensive when compared to other grout types. There are two industry product categories available:

ANSI A118.6 – Standard Cement Grouts for Tile Installation

ANSI A118.7 – High Performance Cement Grouts for Tile Installation

These grouts are typically very easy to install, clean up with clean water and harden within 24 to 48 hours (at 70°F [21°C]). However, note that these grouts typically have minimal chemical and stain resistance attributes. In addition, cement based grouts tend to be the most porous – in other words, they will absorb stains and other elements left on the surface of the grout joint. They are not designed for use in areas that are subject to chemicals, harsh cleaners, materials / elements that stain, etc... Therefore, the use of these grout types in these applications will result in degradation in a relatively short period of time. Thus, any product cost savings will quickly be consumed by costly regrouting / repair expenses which include the closing of the service area, new product costs and labor costs to repair / replace the cement grout.

II. Standard ANSI A118.3 Epoxy Grouts

This grout classification includes all ANSI A118.3 epoxy-based grouts. However, it is important to note that not all ANSI A118.3 compliant epoxy grouts are designed for use in heavy duty, commercial kitchen and industrial application environments. Standard performance epoxy grouts in this category have an increased measure of stain and chemical resistance and are lower in porosity (typically less than 0.5%) when compared with cement-based grouts. However, they are not robust enough to handle the rigors of a harsh commercial kitchen, no-rinse cleaners and industrial application environments. Most of the standard ANSI A118.3 compliant epoxy grouts will degrade when exposed to no-rinse cleaners which are commonly used in these

environments. Although these epoxy grout types may perform better than cement-based grouts and may be more economical in cost when compared to epoxy grouts that are designed for use in heavy duty commercial kitchen and industrial environments, they will degrade in a relatively short period of time. Thus, any product cost savings will quickly be consumed by costly regrouting / repair expenses which include the closing of the service area, new product costs and labor costs to repair / replace the standard performance epoxy grout.

III. High performance ANSI A118.3 Epoxy Grouts

These grout types are specially designed and manufactured to handle all the rigors of commercial kitchen / industrial application environments. These high performance epoxy grouts (e.g. SPECTRALOCK® 2000 IG) are designed to resist chemicals that are commonly used as well as the effects of no-rinse cleaners. Consult the chemical resistance chart of the selected epoxy grout product for information on the resistance to chemicals and their concentration and the exposure time to the epoxy grout. In addition, this category of epoxy grouts also meets some of the performance requirements of ANSI A118.5 compliant furans, which include higher stain, chemical and heat resistance. Ultimately, this category of epoxy grout is designed to provide lower maintenance costs over the life of the installation. In many cases, these epoxy grout types are the only category of grout that is backed by a manufacturer's long-term labor and materials systems warranty. Lastly, ask for independent laboratory test reports to validate a manufacturer's claims on the performance and suitability of the epoxy grout type selected for your project. It will be plainly obvious that not all grout types are designed for use in demanding commercial kitchen (back of house) and industrial tile applications. SPECTRALOCK 2000 IG in #22 Midnight Black is the ideal choice for these applications.

PROTECTION & MAINTENANCE – One of the most critical components to a long lasting grouting installation is the protection of freshly installed grout and its maintenance. Newly installed grout needs to cure in accord with the parameters of the product utilized, temperature, humidity and other job site factors.

SPECTRALOCK 2000 IG has the fastest 'return to service' cure times in its category. Protect grouted areas from traffic and other trades for at least 24 hours after installation or until the grout is hard and no longer tacky. For areas that must have traffic during curing time, cover installation with plastic sheeting, plywood or similar temporary load bearing course. Protect grout from dirt and dust for 72 hours at 70°F (21°C). Please note that temperatures lower than 70°F (21°C) will require protection from traffic for a longer time.

At 70°F (21°C), full chemical resistance with SPECTRALOCK 2000 IG is not achieved for 5 days after installation. Prior to this and following the 10 hour "Time to Heavy Traffic" period, the grout MAY BE cleaned with neutral pH soap and water. Any exposure to chemicals, food or other staining agents must be cleaned up promptly.

SPECTRALOCK 2000 IG is stain resistant when properly installed and allowed to cure properly. It is, unfortunately, not self-cleaning. Routine maintenance can be done with detergents and a sponge or mop. For tough or difficult to remove soil, a bleaching cleaner (e.g. Soft Scrub, Comet, Ajax, etc. or electric dishwashing detergent) on a nylon scrubbing pad or a long handled stiff bristle brush can be used. Please note: Prior to using any cleaning material on a tile installation, test a discrete area or scrap piece of tile to insure desired results.

See [TDS 400](#) – "Grout Guide" for more information on LATICRETE and LATAPOXY Grouts.

See [TDS 144](#) – "Re-Grouting Floor Joints in Commercial Kitchens and Industrial Applications"

* United States Patent No.: 6,881,768 (and other Patents)

Technical Data Sheets are subject to change without notice. For latest revision, check our website at <https://laticrete.com>
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