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Breaking the Cycle

Jack Aspenson

A technological breakthrough in thermo epoxy grout is solving repetitive and costly degradation problems

Today's economic struggles have caused small business owners and large corporations alike to tighten their budgets.

The economic downturn has impacted the restaurant industry tremendously, causing owners and facility managers to search for long-term solutions to recurring issues through advanced technology. The Marcoat Epoxy Grout Floor System from Stuart Dean is quickly becoming the preferred solution for a repetitive and costly back-of-the-house problem: grout degradation.

The Problem

Sanded grout, used most often in production kitchens and cook lines, is composed of a mixture of water, cement and fine aggregate. High foot traffic and environmental elements, such as oleic acid, water and other oils, combine to destroy sanded grout from the bottom up. Such grout degradation is often remedied by cutting out the problem grout or by applying a new layer over the old layer.

However, if the grout is not repaired properly it can allow moisture to seep into tiny spaces and cause bacterial growth, thus damaging the grout again and creating unsanitary conditions. This degradation requires facility managers to replace grout every two to three years at costs anywhere from \$6 to \$12 per square foot. Additionally, sub-standard and problematic installation methods, combined with improper maintenance procedures, reduce grout lifespan even further, causing a greater impact to the bottom line.

The Traditional Solution

Solutions proposed to fix these problems are not without problems of their own. Longer-life epoxy grouts do not have to be replaced as often as sanded grout but require longer cure times and protective covering.

The product can't fully cure in wet, greasy or hot areas, allowing environmental elements to penetrate to the thin set. The need to be covered also creates potential safety issues, which impacts restaurant operations.

A New Approach

Marcoat inventor John Squitieri was asked by a large restaurant chain and a premier New York City hotel to find a solution to their never-ending grout problems. The clients needed a product that is impervious to oleic acid and other environmentally harsh elements found in a kitchen environment. The grout also had to be compatible with all commercial cleaners.

Together with his partner Advanced Adhesives Systems, he developed a Thermo Epoxy Grout Floor System designed to address grout lifespan, absorption rates and maintenance.

The technological breakthrough that makes thermo epoxy grout a better solution than sanded or epoxy grout is a chemical makeup that cures to a solid surface with 0 percent porosity. Unlike thermo epoxy grout, standard and epoxy grout contain silica, which causes a capillary action that allows environmental elements to get below the grout, reducing its lifespan.

John Long, manager of facilities for Carlson Restaurants Worldwide, said, "I have looked for a solution to this problem for 30 years. Only thermo setting grout has ended the annual re-grouting cycle."

Solving the Problem

Of course, the issue doesn't end with the invention of a new product. The solution is a three-part technological advancement.

Six years ago, Stuart Dean and Squitieri determined they needed to break down the installation process of standard and epoxy grouts. Together they developed the industry's first standardized "complete" removal and installation process with the specific needs of restaurants in mind.

First, installers use precision cutting tools to cut down to the thin set. This is a dustless method so facility managers don't need to worry about food contamination. Second, the joints are cleaned and degreased, and all broken, chipped or cracked tiles are replaced. Finally, joints are filled through a proprietary installation process.

Installers and contractors must complete a three-day certification program to purchase and install the Marcoat product. Other grout manufacturers certify their products in only a few hours.

"With pure thermo epoxy grout systems, it's imperative our installers understand the complexity and safety behind Marcoat grout and the strict guidelines Stuart Dean requires for proper installation," said Frank Nedza, owner of Associated Restaurant Services Inc. "My company has been working in restaurant kitchens for 20 plus years, and the Marcoat training showed that we have been installing and repairing floors without completing the proper preparation for success."

Squitieri developed Marcoat to cure quickly and be easily maintained. Because of this, the grout has been well received in restaurants nationwide. Dave Maag, manager of facilities for Carlson Restaurants Worldwide, has installed the Marcoat Grout continuously for the last 18 months and is satisfied with the technology.

"All Marcoat installations eliminate the need for constant re-grouting, are better than traditional solutions and, months later, look the same as the day they were installed," he said.

Cost Considerations

Initial costs are higher than all other materials in use, but the long-term total cost of ownership and maintenance cost reduction are estimated to be at least half of regular sanded grout and two-thirds of other epoxy grout manufacturers.

"Small repairs for cracked tiles are quick and painless for the installer and the restaurant," said Dale Skinner, Wind River Services Inc. "It is as simple as one, two, three: Cut, replace, reapply Marcoat, and it adheres to the existing areas."

New installations of a strong, thinset quarry tile and thermo epoxy grout provide a solid floor with an a total porosity of less than 4 percent. What does this mean for the restaurant operator? With the advancement of cleaners and ability of the floor systems to negate absorption, their floors will maintain that new look longer and require less maintenance. They'll save not only the cost of re-grouting every other year but also on labor and cleaning chemicals.

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