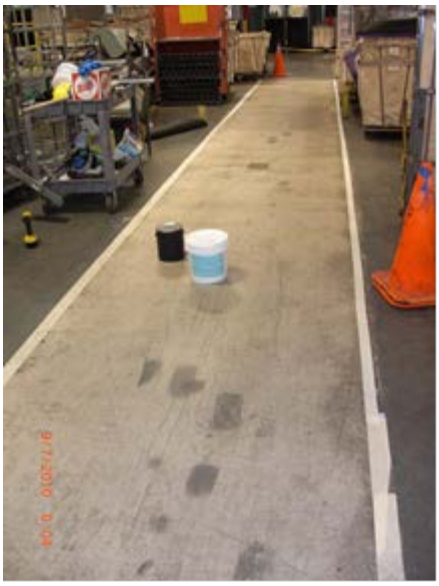
CASE HISTORY ~ CH-058

BIO - FLOR 488/ BIO – DUR 182
"HYBID QUICK – CURE" FLORING SYSTEM

THE CHALLENGE: Busy commercial facilities can ill afford the time and disruption necessary to install advanced flooring systems. Consequently, when their flooring becomes worn or damaged, they need an attractive but durable replacement that can be installed economically with minimum interruption to daily business activities.

Introduced by TFT about 10 years ago, BIO-FLOR 182 was then a giant step forward since it allowed complete installation of a three coat system with unrestricted use in 24 hours. TFT has since been challenged to reduce this time to 12 hours while retaining excellent performance over a variety of surfaces including vinyl composite tile (VCT), vinyl asbestos tile (VAT), and concrete.



The VAT application surface after stripping

VAT is a high maintenance flooring requiring constant waxing and stripping to prevent the release of airborne asbestos fibers. Removal of the VAT is enormously disruptive and expensive, and after removal, it is still necessary to install a new floor. TFT flooring epoxies, however, are applied over and encapsulate VAT so removal is unnecessary.

SOLUTION: TFT's new Hybrid Quick-Cure Flooring System combines the best qualities of our established BIO-FLOR 182 product with a new BIO-GARD 488 water-born primer and top coat. Advances in water-born epoxy technology now allow significant reductions in cure times for both the primer and clear glaze coat used on an attractive color-chip floor. Instead of having to wait more than 4 hours for the primer to cure sufficiently before overcoating, the new BIO-GARD 488 water-born epoxy requires only about 30 minutes. BIO-GARD 488 is also as easy to apply as regular latex paint and has tremendous adhesion to many surfaces from vinyl tile to concrete.

TFT's new flooring system safely and permanently encapsulates VAT with an attractive, hardwearing, seamless epoxy layer. In addition, immediate savings are realized in both personnel costs and chemicals because the new floor requires only mopping or scrubbing with water to maintain it.

APPLICATION: Following OSHA guidelines, the existing VAT floor in a busy aisleway was stripped of existing wax residues. Masking tape was then applied and safety markings set up before the first coat (primer) of BIO-GARD 488 was applied. Tightly adherent marks such as the tire skid marks visible in the photograph were not deemed a problem.

The gray primer coat of BIO-GARD 488 – applied with a standard 3/8" nap roller at the rate of 267 square feet per gallon – was as easy as rolling latex paint. Its initial drying (ready for overcoating with BIO-FLOR 182) took place within 30 minutes.

Initial drying occurs when the water in the BIO-GARD 488 has evaporated. This process is easily visible since the film loses some of its gloss and darkens in color. Ultimate chemical curing of the film then proceeds over the next several days and continues even after it is covered over by the balance of the system.

PRODUCT:BIO-FLOR 182/ BIO-GARD 488 YEAR: 2010 LOCATION: ALBANY, NY

We go where others fear to spread!

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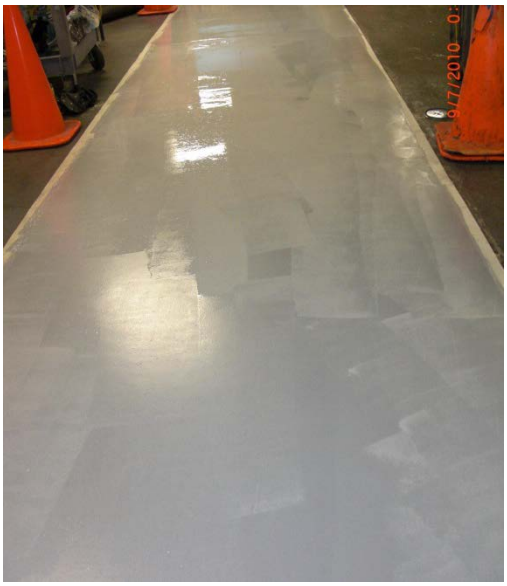
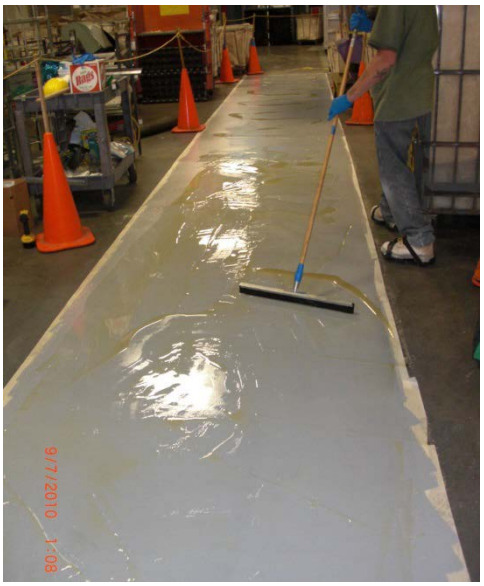


BIO-GARD 488 drying – note color and gloss change

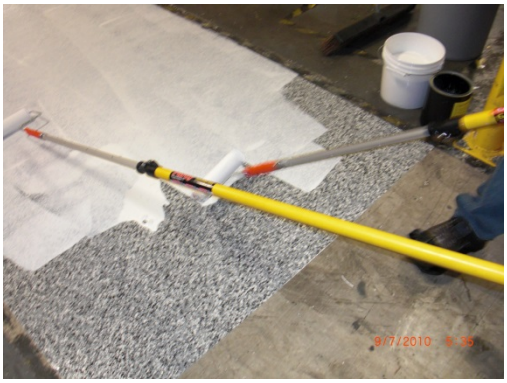
Once the gray BIO-GARD 488 primer dried, it was time to apply the body coat of clear BIO-FLOR 182, a solvent-free pure epoxy resin used to bind the color chips and give a gentle texture to the floor.



BIO-FLOR 182 being applied by squeegee

BIO-FLOR 182 is thicker than the BIO-GARD 488 because it is pure resin and it contains no solvents. It was first poured onto the surface and then spread with a straight edged squeegee. After squeegeeing, the coating was rolled out using standard 3/8" rollers.

Immediately after rolling was completed, the multi-colored ¼" chip mixture was broadcast by hand in a "chicken-feeding" manner. After broadcasting all the color chips, the entire surface was re-rolled to even out the chip distribution. This surface was then left for about 4 hours after which time it was cured sufficiently to allow access with spiked shoes.



Application of the final BIO-GARD 488 Glaze

The final glaze coat was then applied with standard 3/8" rollers. Its milky appearance made uniform application very straightforward. Approximately 20 minutes after application, it became noticeably less milky and ultimately turned crystal clear after about 30 minutes.

Further curing over the next 90 minutes resulted in a surface cured adequately for light foot traffic.

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RESULT: TFT's new **Hybrid Quick-Cure Flooring System** met all the client's criteria for fast curing and high performance with minimal business disruption. It was installed and ready for foot traffic in approximately 7 hours. Not only that, but future maintenance will be far simpler and less expensive than maintaining the VAT it replaced. As a bonus, its cosmetic appearance is also far superior to the previous VAT flooring.

Final Result – hard, glossy and clear

For more information regarding this project, contact:

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