



Protection At The Speed Of Light

CASE STUDY

Diamapro® UV-HS Plus Microban Coating Effectively Resolves Safety Issue at a Cape Coral Hospital

CUSTOMER

Cape Coral Hospital, a part of the Lee Memorial Health System, is a 300-bed hospital with approximately 1,200 employees and a medical staff of more than 600 physicians. The hospital has received numerous awards and is ranked by Healthgrades among the top 10 percent in the nation for overall pulmonary services. It is also a Healthgrades five-star recipient in the treatment of stroke, heart failure and women's health.

PROJECT EVALUATION

Administrators at Cape Coral Hospital recently decided to resurface an exterior concrete ramp from its morgue to amend a recurring slipping problem. Surface layers of the ramp had also eroded to expose aggregate that, in turn, was damaging gurney wheels and other material handling equipment. These conditions were posing safety threats to hospital personnel, as well as cost issues for the health care system.

Searching for concrete resurfacing specialists, facilities managers from Cape Coral Hospital contacted Concrete Floor Systems, a leading concrete flooring specialist. Concrete Floor Systems is also the exclusive distributor of Diamapro® UV-HS Plus Systems, an ultraviolet light cured coating that eliminates the time required for curing, while providing a safe, durable surface that exceeds the strength of conventional epoxy and urethane coatings.

Concrete Floor Systems technicians met with hospital facilities personnel to provide an initial job site consultation that included both surface and substrate evaluation. It was determined



the morgue ramp had higher than average moisture content that was contributing to the degradation of the surface. The customer emphasized that minimal downtime was required during the repair and coating of the ramp. As the only means of egress from the morgue, the ramp was frequently used and an actual shutdown period wasn't possible. The morgue had to remain accessible as the work was performed. Concrete Floor Systems is familiar with the need for minimal down-time in hospitals. "We frequently encounter situations where shutdowns simply aren't feasible, particularly with health care facilities," We establish a working plan that accommodates this need, and have a proprietary ultraviolet cured product in Diamapro that eliminates any lost time due to curing. It's an ideal coating for these situations, and its benefits are extraordinary."

RECOMMENDATIONS

Concrete Floor Systems technicians recommended coating the floor with Diamapro UV-HS Plus once repairs had been made. Diamapro UV-HS Plus is a single component, aliphatic

urethane that is exceptionally resistant to water and chemicals and cures instantly upon exposure to ultraviolet light. Diamapro provides a highly durable, abrasion resistant finish. Photo initiators in the coating react with ultraviolet to form free radicals. These react with acrylate double bonds, cross-linking the molecules to form an exceptionally hard surface. To solve the problem of excess moisture, Concrete Floor Systems recommended applying Diamapro Moisture Control as a pre-treatment.



Diamapro Systems UV-HS Plus is one part, no mixing needed. It comes in 1 gallon or 5 gallon sizes and has an extremely long shelf life.

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PROCESS

Appropriate repairs were made to the morgue ramp and pretreated the substrate with DiamaPro Moisture Control. When preparation was complete, DiamaPro UV-HS Plus matte was applied like a conventional urethane or epoxy. Squeegee out the product with a standard floor roller and lightly back rolling with a wider roller. Ideal coating thickness is approximately 1.6 mils. During the final coating 80-grit aluminum oxide was broadcast to increase slip resistance.

The DiamaPro coating was cured using an HID Bulldog 1700-A 110V, 1700 watt, automatically driven ultraviolet light. As the light passes over the coating curing occurs instantaneously and the floor can be returned to immediate service.

OUTCOME

The entire process of preparation, coating and curing was completed in six hours, and no interruption of work was incurred. The ramp was shut down for only 45 minutes during the entire working process to accommodate passing the curing light over the DiamaPro coating.

Several days following the initial resurfacing, hospital facilities personnel requested an even higher gradient of slip resistance after initial use of the newly coated ramp.

“Although we met the coefficient of friction requirement that was specified, our commitment doesn’t end until the customer is thoroughly satisfied and has a thoroughly safe, durable, aesthetically pleasing floor,”

Concrete Floor Systems technicians returned to the hospital to amend the surface to provide even greater slip resistance. In two hours the team removed the initial layer of aluminum oxide with a 220-grit DiamaPro screen on the DiamaPro Demon and applied another coating of DiamaPro UV-HS Plus matte with an even heavier concentrate of aluminum oxide. Once again the coating was instantaneously cured and the floor was returned to immediate use. This process was completed in less than two hours with no interruption of morgue service. Facilities managers at Coral Cape are completely satisfied with the refurbished surface.

DIAMAPRO™ UV-HS PLUS WITH MICROBAN... A WHOLE NEW LEVEL OF PROTECTION



Protected surface



Unprotected surface

Microban® antimicrobial product protection helps prevent the growth of bacteria that can cause stains odors and product deterioration. Microban technology is infused into DiamaPro UV-HS Plus during the manufacturing process. When microbes, such as stain and odor causing bacteria, come in contact with the treated surfaces, Microban protection penetrates the cell wall and disrupts key cell functions so that the microbes cannot function, grow or reproduce. It keeps floors cleaner by preventing damaging microbial growth before it can start.

