

BY JENNIFER FRAKES

PHOTOS COURTESY OF DUR-A-FLEX AND RIVER CITY COATINGS

**M**ore than 20 years ago, Rick Vasquez Sr. was a foreman for the concrete pour at the yet-to-be-completed SeaWorld San Antonio. Vasquez Sr. worked for Texas Trident, the contractor who built the theme park famous for Shamu, cool rides, and encounters with creatures of the deep. Two decades later, Vasquez Sr., now the owner of River City Coatings, returned to SeaWorld San Antonio with his son, Rick Jr., to install a hybrid methyl methacrylate (MMA) flooring system on over 9,000 square feet (836.13m<sup>2</sup>) of retail space within the park. Rick Vasquez Jr. relates the trials and triumphs of removing the old flooring system, prepping the substrate, and applying the Hybri-Flex MC system just days before the spring break crowds flooded the popular Texas tourist destination.

#### A SEA OF FLOORING OPTIONS

There is no shortage of flooring systems on the market today, and choosing the appropriate system can be an overwhelming task. In a theme park environment, where hundreds of thousands of feet are walking over the floor surface each year, excellent abrasion- and wear-resistance is vital. According to Vasquez Jr., SeaWorld San Antonio has been partial to MMA flooring systems. MMA flooring systems are known for their abrasion- and wear-resistance and their incredibly fast cure times; MMA systems are 100% cured in one hour. "Over the past six years, we have installed MMA flooring systems at SeaWorld," says Vasquez Jr. "They've been really happy with the look and performance of the floors we've installed."

Recently, River City Coatings has begun working with Dur-A-Flex's Hybri-Flex MC, a hybrid decorative chip flooring system that consists of a moisture-tolerant urethane base coat and MMA body and top coats. According to Vasquez Jr., Hybri-Flex MC has all the advantages of a straight MMA system and then some. "It allows for a fast turn-around, provides excellent abrasion- and wear-resistance like MMA systems, but in most cases, it is self-priming. This saves time and material. In

addition, we've found that it is easier to broadcast into the Hybri-Flex MC system. It cures a bit slower, allowing for the broadcast chip to lay out flat. The broadcast chips don't curl; they lay out like glass."

Vasquez Jr. points out that when the broadcast chips don't curl, less sanding is required during the floor installation, and there tend to be fewer maintenance issues down the road. "Moisture and debris can collect in those curls and create problems with the integrity of the floor," he says.

The crew mixes in a non-slip additive to make sure that the floor, while smooth and glassy, is also slip-resistant.

# *Shamu Déjà Vu*



**ABOVE** ▲ "We had to rent a Bobcat and make a special blade with a lip to get under the carpet. Even then, removing the carpet was slow going," says Vasquez Jr.



**ABOVE** ▲ Fortunately, most of the concrete was in good condition. In any area requiring repair, the crew used Cement All, a rapid-set, non-shrink concrete repair material.

Another advantage to the hybrid flooring system is the moisture tolerance of the urethane base coat. The Hybri-Flex MC system, which consists of Poly-Crete MD SL as the urethane base coat, tolerates moisture vapor up to 12 lbs. (5.44kg)/1,000 sq. ft. (92.90m<sup>2</sup>)/24 hours. Comparatively, a straight MMA system tolerates 5 lbs.

(2.27kg)/1,000 sq. ft. (92.90m<sup>2</sup>)/24 hours and epoxy systems tolerate 3 lbs. (1.36kg)/1,000 sq. ft. (92.90m<sup>2</sup>)/24 hours.

Vasquez Jr. thinks of the Hybri-Flex MC system as a bit of an insurance policy when it comes to stopping moisture vapor from undermining the performance of the flooring system.



**ABOVE** ▲ The crew poured the Poly-Crete MD SL urethane base coat at a thickness of 1/8" (0.32cm) onto the cleaned and prepped floor.

"Overall, we feel that by installing the hybrid system, we are giving SeaWorld San Antonio what we believe is a better build coat, but with the same function and look they expect from an MMA system," he states.

#### SHAMU'S SPRING BREAK RUSH

River City was ready with the right flooring system for the job, but could they complete the work before the onslaught of spring break crowds? "The budget was put into place a short time before spring break, so there was no room for error on the schedule," says Vasquez Jr.

"We had to make sure that we allowed time for the staff to move all of their furnishings and products back in place before spring break."

**BELOW** ▼ In uneven patches, Vasquez and the crew applied two coats of Poly-Crete MD SL base coat. "However, because the urethane is self-priming, we didn't have to prime the entire floor before laying down the base coat," says Vasquez Jr.



## Don't rely on an **INHIBITOR** To do the job of a **SALT\*REMOVER**

Salts are removed in a low pH environment.  
Inhibitors require a high pH formulation.

**Remove salts with a low pH product like  
CHLOR\*RID®, it's scientific fact.**

\* cost-effective salt removal \* improved adhesion \* proven to enhance coating performance \*

CHLOR RID Int'l, Inc.  
800.422.3217  
480.821.0039



Read the facts:  
"Salt Remover vs. Inhibitor"  
[www.chlor-rid.com](http://www.chlor-rid.com)

Write in Reader Inquiry #142

## JOB AT A GLANCE

### PROJECT:

Install flooring system in three retail spaces at SeaWorld San Antonio

### COATINGS CONTRACTOR:

River City Coatings  
6635 Old Tezel Road  
San Antonio, TX 78250  
(210) 509-4009  
[www.rivercitycoatings.net](http://www.rivercitycoatings.net)

### SIZE OF CONTRACTOR:

Small, family-run business; crew size varies depending on the size of the project

### PRIME CLIENT:

SeaWorld San Antonio

### SUBSTRATE:

Concrete/ Quarry tile

### SIZE OF JOB:

Main Mast Gift Shop: 3,725 sq. ft. (346.06m<sup>2</sup>)  
Azul Gift Shop: 3,436 sq. ft. (319.21m<sup>2</sup>)  
Sweet Treats: 1,880 sq. ft. (174.06m<sup>2</sup>)

### DURATION:

14 days

### SIZE OF CREW:

6-10 men

### UNUSUAL FACTORS:

- Rick Vasquez Sr. was the foreman on the concrete pour during the construction of SeaWorld San Antonio
- The Hybri-Flex MC flooring system is an MMA hybrid system with a urethane base coat that, in most cases, eliminates the need for a primer
- River City Coatings has found that the hybrid system is easier to broadcast chips into than a straight MMA system
- Had to rent a Bobcat and create a special blade to remove carpet in the Azul Gift Shop as it had been adhered to the substrate using an epoxy glue

### MATERIALS/PROCESS:

- Prep floors using planetary diamond grinders (HTC 650 and SASE Company 5000) and custom 7" (17.78cm) standup grinders for edge grinding
- Repair bugholes and voids using Cement All
- Rollerapply Poly-Crete MD SL, the urethane base coat, at a thickness of 1/8" (0.32cm)
- Broadcast decorative 3/8" (1.27cm) chips by Torginol
- Rollerapply 16 mils (0.41mm) of CryA Glaze G201, the MMA body coat
- Broadcast decorative chips
- Removal of excess chips and debris
- Rollerapply CryA-Top T301, at a thickness of 16 mils (0.41mm)
- Sand the flooring system
- Rollerapply CryA-Top T301, at a thickness of 16 mils (0.41mm)

### SAFETY CONSIDERATIONS:

- Safety glasses, gloves, and ear plugs used during the prep phase
- Safety glasses and gloves used by all material mixers
- MMA drums completely cured of all remaining material and solvent wiped for reuse



## VENDOR TEAM

**DUR-A-FLEX Coatings**  
95 Goodwin Street  
East Hartford, CT 06108  
(877) 251-5418  
www.dur-a-flex.com

**TORGINOL INC. Decorative chip manufacturer**  
P.O. Box 102  
710 Forest Avenue  
Sheboygan Falls, WI 53085  
www.torginol.com

**CTS CEMENT Cement All [cement repair]**  
11065 Knott Avenue  
Cypress, CA 90630  
(800) 929-3030  
www.ctscement.com

**HTC FLOOR SYSTEMS Diamond grinders**  
5617 Tazewell Pike  
Knoxville, TN 37918  
(863) 689-2311  
www.htcfloorsystems.com

**SASE COMPANY Diamond grinders**  
26423 79th Avenue South  
Kent, WA 98032  
(800) 522-2606  
www.sasecompany.com

**SUNBELT RENTALS Bobcat Rental**  
[800] 667-9328  
www.sunbeltrentals.com

**ABOVE** ▲ After the base coat had cured, the crew laid down 16 mils (0.41mm) of Cryl-A-Glaze G201 using an 18"-wide (45.72cm), 3/8" (0.95cm) nap roller.

"In each of the three spaces, the finished flooring system with the urethane base coat, MMA body coat, and two MMA top coats, has a thickness of 3/16" (0.48cm)."

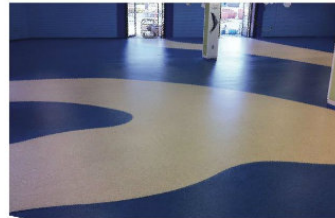
Protection of the crew and the environment is extremely important to River City Coatings. According to Vasquez Jr., safety glasses, ear plugs, and gloves were worn at all times by the crew during the prep phase of the product. Crew members who were mixing the material for the pour phase were also required to wear safety glasses and gloves.

Poly-Crete MD SL is a water-based material; therefore, the containers in which the material comes can be disposed of at the local landfill. The MMA containers are a different story, however. "We purchase the MMA in drums and cut off the lids after we use the material. We then cure off any material remaining in the drums and solvent wipe for reuse," says Vasquez Jr.

"A local drum company comes and picks them up."

### BELOW THE SURFACE

In today's competitive marketplace, it is easy to lose sight of the importance of long-standing relationships built on trust and proven results. While Vasquez Sr.'s history with the theme park makes for a good story, without River City Coatings' hard work, dedication,



**ABOVE** ▲ "In areas where the floor is multi-colored, such as in the Main Mast Gift Shop, we laid down one color first, going all the way to the first top coat. Then we applied the second color, once again going all the way to the first top coat. We then sanded the entire floor and applied the final top coat," says Vasquez Jr.

and a commitment to doing the job right and on schedule, it would be just that—a good story. Instead, with a track record of successful projects, River City Coatings has built a foundation for continued work at SeaWorld San Antonio. "We are their go-to flooring system contractor," says Vasquez Jr.

"We have a great relationship with the staff at SeaWorld San Antonio. We realize that they are often limited with time constraints for installs. They know that when they call us, they are our Number 1 priority."

And although River City Coatings is a small, family-run business, Vasquez Jr. says they are not ones to shy away from challenges. "We have successfully taken on some large projects with tight schedules even though we are still a relatively small coatings contractor."

And it certainly goes without saying that this most recent SeaWorld San Antonio project qualifies as one such job. CP

**BELOW** ▼ Vasquez Jr. describes the finished floors, "In each of the three spaces, the finished flooring system with the urethane base coat, MMA body coat, and two MMA top coats, has a thickness of 3/16" (0.48cm)."



## Apollo 600

Supplied-Air Respirator for Abrasive Blasting

Now with Optional DLX Comfort-Fit Suspension!

**NEW!**

DLX features multiple soft, fabric-covered pads, which easily attach to the helmet shell to fit snugly around the operator's head.

\*Available for Apollo 20 and 600 models only

Clemco Apollo Series high-performance, NIOSH-approved blasting respirators now feature a new suspension option, giving operators a choice in respirator fit. The unique DLX liner system fits like a motorcycle helmet providing cushioned comfort with the same rugged performance and safety of standard Apollo HP and LP models.

**CLEMCO** **Clemco Industries Corp.**  
One Cable Car Drive  
Washington, MO 63090

ISO 9001:2008 certified  
[www.clemcoindustries.com](http://www.clemcoindustries.com)

Write in Reader Inquiry #112

**INTERNATIONAL COATINGS INC.**

### High Performance Epoxy and Urethane Floor Coatings

- Resin Rich / Single Step Application - No Primer or Topcoat Needed
- Fast Cure Versions for Reduced Downtime
- 100% Solids - Zero VOC
- Excellent Damp Adhesion
- Good Chemical and Impact Resistance

**Manufacturing a full line of coatings for 25 years!**

- Heavy Duty 1/4" Trowelled
- Wall Coatings and Liners
- Secondary Containment Digs
- Primers, Coatings, Sealers
- Quick-Cure Patch Materials
- Pump Base Grouts

International Coatings, Inc. • 2925 Lucy Lane • Franklin Park, IL 60131

Join our nationwide network of certified contractors and representatives, visit our website at [www.internationalcoatings.com](http://www.internationalcoatings.com) or call us at 800-624-8919 for more information.

Write in Reader Inquiry #301