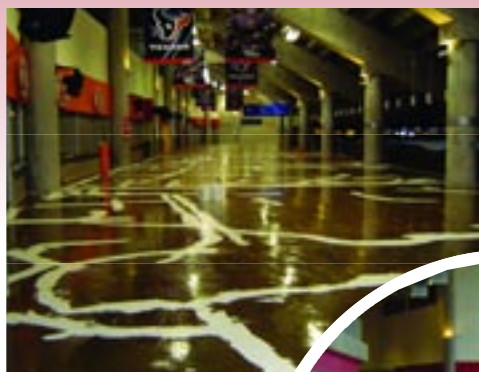




Football-friendly  
Photos courtesy of  
PolySpec

# Another Record Set at Super Bowl Stadium

Floor repair in progress. Cracks and joints were repaired with an elastomeric coating.

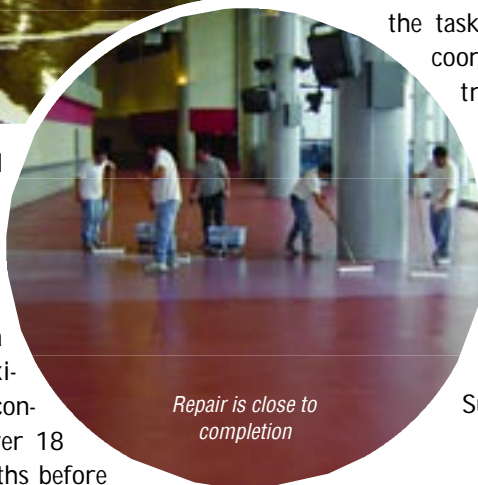


In a job that normally should have required 18 weeks to complete, a flooring manufacturer, surface preparation contractor, and flooring installation contractor managed to prepare and install a waterproof flooring system to approximately 350,000 sq ft (31,500 sq m) of concrete in Houston's Reliant Stadium over 18 days in December 2003, just two months before the stadium was to host Super Bowl XXXVIII.

Cracks had developed in the new stadium's concrete flooring. These cracks led to leaks into lower level office spaces, including the office of the Houston Texans' owner, Bob McNair. The Harris County Houston Sports Authority realized the need for a waterproof concrete coating to remedy the situation. But the necessary repairs could not proceed until the stadium obtained funding.

With the Bowl kickoff drawing near and the NFL increasing pressure for completion of the work before the event, the stadium contacted PolySpec L.P., a Houston-based manufacturer of polymer coatings, floorings, and joint sealants. Tony Crowell, Vice President Sales and Marketing, notes that "[t]he project had been engineered and planned well in advance, but due to the stadium's difficulty in securing funding, the project was delayed until it was, by industry standards, too late. We estimated project completion at 18 weeks. They asked us if we could do it in 18 days."

Due to the project scope and schedule, PolySpec assumed



Repair is close to completion

the task of construction management, ensuring coordination between the stadium and all trades. The manufacturer specified its Thiokol® decorative quartz epoxy flooring system, which includes a crack control system and waterproof membrane. The manufacturer chose Techniquex Hydro Systems Inc., headquartered in Tempe, AZ, to install the flooring system. Techniquex subcontracted the concrete surface preparation to Southwest Surface Blasting Inc. of Mesa, AZ.

## Two-Day Prep for Concrete

According to Russell Sime, President of Southwest Surface Blasting, his company prepared the concrete using self-contained propane- and electric-powered shot blasting machinery and hand-held diamond grinders. The bare concrete had been sealed; therefore, the steel shot blasting was conducted to remove the concrete layer penetrated by the sealer and to provide a medium profile of 3 to 5 mils (75 to 125 micrometers). Workers shot blasted more than 250,000 sq ft (22,500 sq m) of concrete over two days. Sime notes that the company was not required to blast bathroom areas, which were also a part of the flooring project. The remaining 100,000 sq ft (9,000 sq m) was blasted by Techniquex. Clean-up of the remaining shot took one day, according to Sime.

## Installing the Flooring System

Once Sime's workers had completed their portion of the project, more than 100 workers from Techniquex began the flooring installation. First, says Joe Cirincione, Operations

*Continued*



Manager for the company, crews blew down the concrete substrate to ensure that the floor was free of dust and shot. The application of a solvent-borne, moisture-tolerant epoxy primer (300 EX) followed. Workers applied the primer by squeegee and backrolling to a dry film thickness (DFT) of 8 mils (200 micrometers). Joints and cracks were repaired with an elastomeric coating (2515), says Cirincione. Using a 100% solids epoxy patching material (201), workers patched holes and voids in the concrete.

Next, crews applied a 20-mil (500-micrometer) coat of an elastomeric membrane (211) by squeegee and back-rolling. Sand was broadcast over the membrane to the saturation point. Once the membrane cured, the excess sand was swept up, and the floor was again blown down. Crews then applied a 16-mil (400-micrometer) coat of an epoxy (201) and broadcast more sand. Following sweeping and blow down, the contractor applied another coat of the epoxy to a DFT of 10 mils (250 micrometers) using the same squeegee and backrolling procedure. A topcoat of a water-borne urethane (236) was rolled to a DFT of 3 mils (75 micrometers).

Representatives of the flooring manufacturer were on site throughout the project to verify proper surface preparation and coatings application, says Cirincione. "The job went smoothly," he says, with very few punchlist items.

#### Summing up the Project

"This was a very well organized project, as is the case with all the Techniquex projects I've been involved with," says Sime. Ken Garner, Director of Operations for the Harris County Sports & Convention Corporation, concurs: "I couldn't be more pleased." He admits to initial apprehension that such a large job could be done successfully in such a short time, but "all my concerns were assuaged," he says.

*From PolySpec*

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