

 protective coatings

# Poly Performance

## Polyurea seals a water feature complete with lights, jets and fire

By Kaitlyn Chassé

In Macau, China, a luxurious resort stands proudly on a busy peninsula. Its grand hotel is about to re-catch the public eye, as a newly upgraded water attraction is only days away from completion, as of publishing.

### Not Just A Fountain

According to Craig Kowalski, technical director at Hydrotech Waterproofing Solutions, this new fountain consumes roughly 21,000 square feet of hotel-front property. This high-profile project at the resort, which declined to be named, has been ongoing for roughly 10 years, as the fountain has been upgraded. During that time, about 3,000 penetrations have been added to the original 2,000. These penetrations, according to Kowalski, house various features like jets and lights.

"This fountain is amazing," said Kowalski. "There are jets, and lights, and fire shoots out from the

surface of the water." Music accompanies the features to create unique water shows, and every 15 minutes there is a completely different show.

### Getting The Job Done

After completion of the original project eight years ago, Hydrotech Waterproofing Solutions returned two more times for recoating work, due to planned additions and alterations to the existing water feature. The additions bring the fountain's total to 8,000 penetrations.

"Ten years ago we applied the original application of polyurea coating to seal the

penetrations," said Kowalski. "Then, two years later we went back to seal additional work that had been done to the fountain."

"Waterproofing the feature was extremely important, so we sealed all penetrations with the PU sealant and then hand applied EPL-8 polyurea on top of the sealant. When all penetrations were sealed with this system, the concrete was primed with a two-component epoxy primer that was then sprayed with AMP-100."

Why was waterproofing such a prime concern? Because directly underneath the fountain is a parking garage and control rooms that house



expensive electronics critical to operating the fountain and hotel.

Roughly a year after Hydrotech Waterproofing Solutions sealed the additional features, new penetrations were added as a result of alterations. Hydrotech again coated the fountain with AMP-100.

Now, seven years later, Hydrotech has been called to waterproof the fountain once more.

"The owners decided to add more water cannons, lights, and other features to the fountain," said Kowalski. "In doing so, they added roughly 3,000 more penetrations, all needing to be sealed with our system."

For a third time, Hydrotech sealed the new penetrations. This time, Kowalski chose to use SPI's AMP-100-UB.

"Using SPI's AMP-100-UB not only added a warranty to the waterproofing system, but it also gave the fountain a uniform color; in this case, black," said Kowalski.

See side bar for other reasons why Hydrotech used SPI's ultra-bond technology.

"Each time we worked on the fountain we used 13 sets of polyurea," said Kowalski. "We sprayed about 1.5-2 mm of polyurea using two guns."

During the most recent job, multiple crews were hired to ensure the fountain would be finished on time.

"There [were] a number of contractors working with us, roughly 50 individuals, in order to

get this project finished by the end of August," said Kowalski.

#### Unscheduled Sealant Test

"We were about 75% finished sealing the new penetrations when a typhoon hit Macau and just about filled the entire fountain with water," said Kowalski. "There were no leaks, and that was before we finished applying the AMP-100 final sealant. We are very pleased with the key sealant and the hand applied sealant as well."

Mother Nature's surprise test proved to the resort that the coating was worth its salt. It also left Hydrotech crewmembers very impressed with the sealant as well.

#### Weather In China

"One of the biggest challenges we faced in Macau was weather, especially because we had to do so much work in such a small window of time," said Kowalski. "We had quite a bit of rainy weather, so we erected tents and dried penetrations with hand dryers, just to keep on schedule. Now it's hot, and that pool is black so it's really uncomfortable. It's hard work, but the guys are persevering."

Hydrotech was given a 17-day window, from August 3rd, to spray the last application of AMP-100-UB on the fountain. Kowalski is confident that it will only take 7-10 days for them to finish. The fountain is scheduled to be unveiled at the end of August.



### Why use SPI's ultra-bond technology?

Hydrotech Waterproofing Solutions decided to use SPI's AMP-100-UB because of positive results in the past. They also used AMP-100-UB because of the following benefits:

- Cross-linked molecular structure
- Adherence to nearly all substrates
- Ability to be applied over aged coatings

"This fountain is amazing. There are jets, and lights, and fire shoots out from the surface of water."

(cont'd on the next page)

Hydrotech team sprays AMP-100-UB Pure Polyurea Black on the base of the fountain; Top: 21,000 square foot water feature is on track to be completed by the end of August





Hydrotech team hand applying EPL-8 over pure polyurea

### About Specialty Products Inc

SPI was Hydrotech Waterproofing Solutions supplier for this job. SPI is widely recognized as a global market leader and innovator in manufacturing polyurea elastomeric coatings, polyurethane foam systems, and plural-component application equipment. Their protective coatings provide a tough barrier that protects a variety of surfaces. SPI also provides year-round 24/7 advanced technical support, backed by a dedicated staff with over 150 years of collective industry experience. For more information, visit SPI's website at, [www.specialty-products.com](http://www.specialty-products.com).

### About Hydrotech Waterproofing Solutions

Hydrotech Waterproofing Solutions distributes SPI protective coating products and offers technical consulting and project management services. The company is based in Hong Kong. Hydrotech Waterproofing Solutions was a former subsidiary of Hydrotech Asia Limited. Following MBO, Hydrotech Waterproofing Solutions now operates as a privately held company. ▶◀



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