

**PROJECT:**  
Monterey Bay Aquarium®  
One Million Gallon, Concrete  
Exhibit Tank Protective Lining

**LOCATION:**  
Monterey Bay, California

**OWNER:**  
Monterey Bay Aquarium®

**APPLICATOR:**  
Advanced Polyurea

**COATING SYSTEM:**  
SPI Polyshield HT™ Polyurea  
90 Mil Avg. Coating Thickness  
Polyprime™ 100 Concrete Primer

**DATE COMPLETED:**  
April 2011

**PROBLEM:**

The world renowned Monterey Bay Aquarium® is an ocean conservation leader, trendsetter for its unique marine life exhibits, cutting-edge research, and public education. The aquarium had a one-million gallon concrete exhibit tank that needed rehabilitation. The existing crystalline-capillary coating was deteriorating; causing cuts and abrasions on the diverse marine life as they rubbed against it. Aquarium officials were adamant, that the concrete waterproofing solution must protect the expensive exhibit tank and provide a smooth surface that wouldn't harm the marine life.

**SOLUTION:**

After a thorough bidding and review process, Aquarium officials awarded the project to Advanced Polyurea and decided to use SPI's Polyshield HT™ elastomeric polyurea. The choice was based on the coating's proven track record in marine life enclosures, and its ability to be applied creating a smooth surface. The Advanced Polyurea team abrasive blasted the surface to remove the

old coating, and any damaged concrete. Concrete moisture meters were used to test the concrete surface to ensure there was a minimal level of water outgassing. Damaged and uneven concrete areas were filled with a polymer modified mortar to create a smooth, uniform surface. To further help mitigate moisture migration in the concrete, the applicator applied three coats of Polyprime™ 100 primer. An average minimum thickness of 90 mils of Polyshield HT™ polyurea was then spray-applied.

**RESULTS:**

Aquarium officials are extremely happy with the new coating. The liner was closely inspected one year later and was performing well. As a result, several new projects were awarded to the applicator.

