

NATIONAL AQUARIUM IN BALTIMORE

As one of the most visited destinations in Maryland, the National Aquarium in Baltimore (NAIB) has kept its interior and exterior structures shipshape for more than a quarter century using the latest coating systems available from Tnemec. "From its beginning, the National Aquarium has been willing to use new technology from Tnemec to achieve and maintain long-lasting aesthetic performance," according to Tnemec coating consultant Todd Guntner.

In 2004, a coating system featuring an advanced fluoropolymer topcoat was used on interior and exterior concrete as part of a 65,000-square-foot expansion. The surface was brush-off blast-cleaned in accordance with SSPC-SP13/NACE No. 6, followed by a prime coat of Series N69 Hi-Build Epoxoline II, a polyamidoamine epoxy. A coat of Series 1075 Endura-Shield II, a semi-gloss acrylic polyurethane, and Series 1071 Fluoronar, an air-dried fluoropolymer, completed the coating system. "Fluoronar was chosen for its resistance to ultraviolet light and its long-term performance," Guntner explained. "In addition, the Aquarium is located right in the harbor, so salt water was an issue, too."

Prior to the introduction of Fluoronar, the same primer and intermediate coatings were used for concrete along with a topcoat of Series 76 Endura-Clear, a high-gloss urethane, to maintain the bright, nautical color scheme used at the Aquarium. "Eventually, when the clear coat needs repainting, the Aquarium intends to use Fluoronar," Guntner said.

Both interior and exterior steel at the NAIB was commercially blast cleaned in accordance with SSPC-SP6/NACE 3 and shop-primed with Series 90-97 Tneme-Zinc, a zinc-rich, moisture-cured urethane. Steel inside the Aquarium's atriums received an intermediate coat of Series 66 Hi-Build Epoxoline, a polyamide epoxy, and a finish coat of Series 73 Endura-Shield, an aliphatic acrylic polyurethane. "We've never had to retouch any coating on the atrium steel," Guntner noted. On exterior steel, an intermediate coat of Series N69 Hi-Build Epoxoline II, a polyamidoamine epoxy, was followed by a coat of Endura-Shield II. These applications included a glass curtain wall, handrails, an outdoor pedestrian bridge and artwork resembling a nautical mast.

"Over the years, through expansions and renovations, thousands of gallons of Tnemec coatings have been used at the National Aquarium," added Guntner.

Opened on August 8, 1981, the NAIB has an annual attendance of 1.6 million visitors.

FEATURED PRODUCTS

- Series 66 Hi-Build Epoxoline
- Series N69 Hi-Build Epoxoline II
- Series 73 Endura-Shield
- Series 84 Ceramlon ENV
- Series 90-97 Tneme-Zinc
- Series 1071 Fluoronar
- Series 1075 Endura-Shield II



PROJECT INFORMATION

Project Location

Baltimore, Maryland

Project Completion Date

September 2004

Owner

National Aquarium in Baltimore

Architect

Chermayeff, Sollogub & Poole, Inc.
Boston, Massachusetts

Contractor/Applicator

Tidewater Steel

Fabricator

RH Fewster
Baltimore, Maryland

Series 1071 Fluoronar provides long-term performance and excellent resistance to UV light for the exterior of the National Aquarium in Baltimore.

