

AMERICAN CEMENT EXCAVATOR

A cement quarry is a tough grind for protective coatings, which is why an innovative coating system from Tnemec Company was selected by the American Cement Company to restore a used dragline excavating machine at a new manufacturing facility in Sumterville, Florida. "This was a new plant, so attention was being paid to environmental concerns," noted Tnemec coating consultant Mike Stensrud. "Series 27WB Typoxy is a low VOC product with high-build capabilities. When you have a structure with sharp edges, bolts and areas that are difficult to coat, using a higher build material is advantageous."

The excavator was coated while it was disassembled. First, the surface of the excavator was pressure washed and spot primed with Series 135 Chembuild, a surface tolerant coating. A coat of Series 27WB Typoxy, an inorganic hybrid, water-based epoxy, was then spray-applied. Series 27WB is thinned with potable water and is virtually odor free.

"The painting contractor for the excavator was very impressed with Series 27WB and its high-build capabilities and hardness," Stensrud reported. "They also enjoyed the fact that they didn't have to use a solvent like toluene or MEK (methyl ethyl ketone). They could use water for thinning and cleanup, which was a definite plus."

The topcoat on the base of the excavator (also known as the control house) consisted of Series 740 UVX, a hybrid aliphatic polyurethane. The remaining areas were topcoated with Series 1074U Endura-Shield II, an aliphatic acrylic polyurethane. Both polyurethane coatings are highly resistant to abrasion, wet conditions, corrosive fumes, ultraviolet (UV) light and exterior weathering. "The excavator is exposed to lime, which is removed from a pit, deposited on a conveyor and taken to the plant for processing," Stensrud explained. "Earlier in the project almost a mile of conveyor equipment, along with the tops of concrete silos and metal structures, were coated with Tnemec coatings. They can't stop their production to repaint this equipment, so they needed coatings suitable for this environment."

American Cement's new joint-venture Sumterville facility is located north of Orlando and Tampa. The \$200 million plant was expected to be operational in 2009.

FEATURED PRODUCTS

- Series 27WB Typoxy
- Series 740 UVX
- Series 135 Chembuild
- Series 1074U Endura-Shield II



PROJECT INFORMATION

Project Location

Sumterville, Florida

Project Completion Date

May 2008

Owner and Engineer

American Cement Company, LLC
Sumterville, Florida

Field Applicator

Crystal Coatings
Spring Hill, Florida

Series 27WB Typoxy was chosen as the intermediate coat to the disassembled American Cement Excavator in Sumterville, FL because of its high-build capabilities and hardness.

