

FAIR OAKS CORPORATE CENTER

When the roofing on one of the office buildings at the Fair Oaks Corporate Center site in Fairfax, Virginia, started showing its age, project engineers kept costs from going through the roof by specifying a field-applied fluoropolymer coating system from Tnemec. "The aged roof showed about 25 percent severe rusting and pitting after 20 years," recalled Tnemec coating consultant Todd Guntner. "We were able to recoat it at half the cost of replacement."

Specifications called for the roof structure to be prepared in accordance with SSPC-SP7/NACE No. 4 Brush-Off Blast Cleaning and spot- and full-primed with Series 135 Chembuild, a modified polyamidoamine epoxy for marginally prepared rusty steel and tightly adhering old coatings. The specified intermediate coat was Series 66 Hi-Build Epoxoline, a polyamide epoxy, applied by brush and roller, followed by a finish coat of Series 1072 Fluoronar, a high-solids fluoropolymer coating that offers an ultra-durable finish with outstanding color and gloss retention.

In order to demonstrate the surface preparation, method of application and performance of the coating system, a test patch was prepared on a section of the roof structure and allowed to weather over a six-month period. "We did the surface preparation, applied the entire coating system and left it to weather through freeze-thaw cycles and changes in weather," Guntner noted. "Then we performed adhesion testing on the mock-up in accordance with ASTM D 3359, Methods A and B."

The ASTM D 3359 standard covers procedures for assessing the adhesion of coating films to metallic substrates by applying and removing pressure-sensitive tape over cuts made in the film. Results of the adhesion testing were added to proprietary test data on Fluoronar, as well as international research on color and gloss retention of fluoropolymer coatings spanning more than 25 years, which Guntner provided to the owner. "The extensive test data was the clincher," Guntner noted. "The project engineer had not seen an air-cured fluoropolymer system that would provide the overall performance of the original roof, including color stability and corrosion resistance."

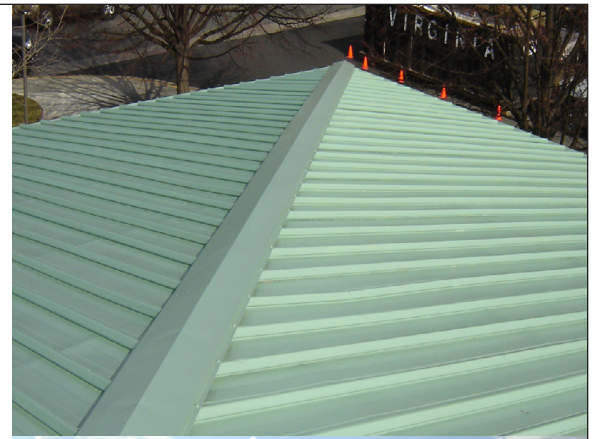
At 60 percent solids, Fluoronar offered adequate and consistent film thicknesses when applied by brush and roller in the same copper green patina as the building's original roof. "Between the primers and finish coat, a total of 600 gallons of material were needed to complete the project," Guntner estimated. And after more than seven years of weathering, Guntner reported that everything about the project continued to remain "thumbs up."

FEATURED PRODUCTS

Series 1072 Fluoronar

Series 135 Chembuild

Series 66 Hi-Build Epoxoline



PROJECT INFORMATION

Project Location

Fairfax, Virginia

Project Completion Date

June 2003

Owner

Menard Doswell & Company
Fort Worth, Texas

Engineer

Menard Doswell & Company
Fort Worth, Texas

Applicator

United Coatings Company

The aged roofs of the Fair Oaks Corporate Center were coated in Tnemec's Series 1072 Fluoronar saving the owner half the cost of replacing the entire roof.

