

DUQUESNE PEDESTRIAN SKYWALK

When a long-lasting protective coating system was required for a new steel and glass skywalk at Duquesne University, project engineers moved fluoropolymer technology from Tnemec to the head of the class. "The decision was a no brainer," according to Tnemec coating consultant Shawn Malarik. "The project called for a fluoropolymer material that could be brush-and-roller applied to the pedestrian bridge, which arches 65 feet above a busy road on the Duquesne campus. Long-term color and gloss retention was another key requirement."

The eight-story, glass-enclosed skywalk features a steel superstructure, contemporary arch frame design, metal roofing and an aluminum window wall system. The bridge links the center of the campus to the \$30 million Power Center, a recreational facility housing a two-story book store, juice bar, restaurant, two gyms, classrooms, fitness facilities and a ballroom.

All exposed steel was prepared in accordance with SSPC-SP6/NACE No. 3 Commercial Blast Cleaning prior to receiving a shop-applied prime coat of Series 90-97 Tneme-Zinc, a moisture-cured, zinc-rich aromatic urethane with excellent corrosion resistance. Nearly 90 gallons of Tneme-Zinc were required for the project.

Next, an intermediate coat of Series 1075 Endura-Shield II, an aliphatic acrylic polyurethane was brush-and-roller applied in the field. A finish coat of Series 1072 Fluoronar, a satin finish, high-solids fluoropolymer completed the coating system. Approximately 40 gallons of Endura-Shield and 40 gallons of Fluoronar were used on the project. The same three-coat system was also used on an architectural sunshade located adjacent to the university's student center. "That project came about as a direct result of the work on the skywalk," Malarik noted.

The bridge's galvanized deck was chemically treated prior to receiving two coats of Series 30 Spra-Saf EN, a direct-to-metal hydrophobic acrylic polymer. Spra-Saf EN provides early flash-rust resistance, as well as long-term corrosion protection.

"Another Tnemec coating system was used on a parking garage connected to the Duquesne student center. That project used a coat of Series 1 Omnithane, a single-component, moisture-cured resin containing micaceous iron oxide and zinc; an intermediate coat of Series N69 Hi-Build Epoxoline II, a polyamidoamine epoxy; and a finish coat of Series 73 Endura-Shield, a semi-gloss aliphatic acrylic polyurethane," reports Malarik.

With more than 10,000 students, Duquesne is consistently ranked among the nation's top Catholic universities for its award-winning faculty and 130-year tradition of academic excellence.

FEATURED PRODUCTS

Series 1 Omnithane
Series 30 Spra-Saf EN
Series N69 Hi-Build
Epoxoline II

Series 73 Endura-Shield
Series 90-97 Tneme-Zinc
Series 1072 Fluoronar
Series 1075 Endura-Shield II



PROJECT INFORMATION

Project Location

Duquesne University - Pittsburgh, Pennsylvania

Project Completion Date

September 2006

Owner

Duquesne University - Pittsburgh, Pennsylvania

Engineer

WTW Architects, Inc. - Pittsburgh, Pennsylvania

Shop Applicator

Regal Industrial Corp. - Donora, Pennsylvania

Field Applicator

Lisanti Painting, Inc. - Pittsburgh, Pennsylvania

All exposed steel on the Duquesne Pedestrian Skywalk in Pittsburgh, Pennsylvania received a prime coat of Series 90-97 Tneme-Zinc which provides excellent corrosion resistance.

