

PORTLAND INTERNATIONAL JETPORT PARKING GARAGE

After the rehabilitation and expansion of the Portland International Jetport in Maine was cleared for take-off, project officials made sure the perimeter steel around the parking structures maintained color and gloss by specifying a "jet age" coating system from Tnemec. "They were looking for the best coating system to provide the longest color and gloss retention possible for structural and miscellaneous perimeter steel," Tnemec coating consultant Michael Woessner recalled. "A polyurethane coating system used on the existing parking structure's galvanized steel had faded over time, so it needed to be overcoated."

Surface preparation consisted of pressure-washing the steel with a zero-degree oscillating tip at 5,000 psi in accordance with SSPC-SP12/NACE No. 5 Surface Preparation and Cleaning of Metals by Waterjetting prior to recoating, followed by hand and power tool cleaning where needed. "We used two different primers on that project," Woessner noted. "When the project started in the spring, applicators used Series 135 Chembuild, a modified polyamidoamine epoxy with exceptional adhesion characteristics. After the temperature became cooler in September and October, the applicators switched from Series 135 to Series N69F Hi-Build Epoxoline II, an epoxy that can cure in temperatures as low as 35-degrees F." Approximately 200 gallons of Series 135 and 112 gallons of Series N69F were roller-applied.

Nearly 300 gallons of Series 1075 Endura-Shield, an aliphatic acrylic polyurethane, were roller-applied as an intermediate coat on the parking structure's exterior steel. Series 1075 is specially formulated to resist the damaging effect of ultraviolet (UV) light. The finish coat was Series 1071 Fluoronar, a high-solids fluoropolymer, which provides an ultra-durable finish with outstanding color and gloss retention. The project required 250 gallons of Series 1071 in a custom dark blue color.

"The project included construction of a new parking structure, where similar quantities of the same coating system were applied on new galvanized steel," Woessner added. "That project was an expansion of the existing parking garage and involved a different coating contractor using the same three-coat system."

The renovation and expansion of the parking structure is part of a \$75 million improvement project that nearly doubled the size of the passenger terminal from 150,000 square feet to 280,000 square feet. Other improvements included an enclosed bridged connection to the parking garage, required baggage handling equipment, enhanced access and terminal roads, and the construction of Maine's largest geothermal heating system.

FEATURED PRODUCTS

- Series N69F Hi-Build Epoxoline II
- Series 135 Chembuild
- Series 1071 Fluoronar
- Series 1075 Endura-Shield



PROJECT INFORMATION

Project Location

Portland, Maine

Project Completion Date

November 2009

Owner

City of Portland

Architect

DHK Architects - Boston, Massachusetts

Applicators

FA Gray Painting - Portsmouth, New Hampshire

Van De Graaf Painting Co. - Portland, Maine

The Portland International Jetport Parking Garage utilizes a high-performance coating system from Tnemec, featuring a fluoropolymer topcoat, to protect its structural steel while also allowing it to maintain its color and gloss.

