

HY-VEE/KNAPP PROPERTIES BUILDING ROOF SCREEN

When installing its roof screen, a new four-story mixed-use building in Des Moines, Iowa, discovered a potential issue with thermal bridging. The brackets that would connect the exterior screen to the interior steel presented a point of thermal transfer and a concern with potential condensation issues. The structural engineer for the project had heard of a few solutions and, with the help of Tnemec, decided to specify an innovative thermal break solution, Aerolon.

“The project team was interested in protecting the building from the threats of thermal bridging,” recalled Rory Sudbeck, Tnemec representative with SGA Coating Consultants in Omaha, Neb. “We presented our thermal insulating coating, Aerolon, as a fluid-applied thermal break and they thought it would be incredibly useful.”

The galvanized metal brackets were coated in-shop by Abstract Painting and Sandblasting in Council Bluffs, Iowa. The brackets received a brush-blast before being coated with Tnemec’s versatile epoxy coating, Series 66 Hi-Build Epoxoline.

The galvanized brackets were then coated using the fluid-applied insulating coating, Series 971 Aerolon Acrylic. Series 971 utilizes aerogel to offer exceptional insulating values, such as a thermal conductivity (K-Value) of 35 mW/mK. This helps to prevent problems associated with thermal bridging, controlling unwanted temperature transfer and condensation inside the building envelope.

“Aerolon can provide thermal protection in as little as two coats or 80-100 mils DFT,” commented Sudbeck. “For these tubular components, the product was spray-applied in 3 coats for a total thickness of 150 mils.”

Following application, the brackets were delivered to the jobsite ready for installation. The new brackets and roof fence were installed in September 2016.

The Hy-Vee/Knapp Properties building in downtown Des Moines opened in November 2016. According to Raker Rhodes’ website, “Hy-Vee partnered with developer Knapp Properties to feature a \$30 million, 35,000 square-foot grocery store on the first floor, 82 apartments on the upper floors, and a two-level, 210-stall parking garage behind the building.”

FEATURED PRODUCTS

Series 66 Hi-Build Epoxoline
Series 971 Aerolon Acrylic



PROJECT INFORMATION

Project Location
Des Moines, Iowa

Project Completion Date
November 2016

Owner
Hy-Vee Stores
Ankeny, Iowa

Structural Engineer
Raker Rhodes
Des Moines, Iowa

Shop Applicator
Abstract Painting and Sandblasting
Council Bluffs, Iowa

All interior-to-exterior roof screen brackets for the Hy-Vee/Knapp Properties building in Des Moines, Iowa, were shop-coated with Tnemec’s fluid-applied thermal break, Aerolon.

