

## Renowned Chicago Synagogue Looks Up to New Weather-Resistant Roof

### New Water-Based Topcoat a Key Element in Re-Roofing of Landmark House of Worship

Most religious sanctuaries in the United States have been built in a classical style, often characterized by columns and buttresses. One extraordinary exception to this classical norm is the North Shore Congregation Israel, a Jewish synagogue near Chicago, IL.

Formed from concrete columns that soar to more than 50 feet in the air, this synagogue is like no other in its distinctive appearance. The structure's unique design makes its roof a fragmented array of varying angles and slopes made all the more complex by an abundance of skylights.

### New Type of Topcoat Applied

Most of the roof consists of spray polyurethane foam (SPF) insulation and

numerous layers of protective coatings that were applied years ago. Recently, the roof began to experience leaks, and synagogue officials opted to replace the failing system with a similar combination of SPF foam and protective coatings.

One difference, however, was the use of a different type of finish or topcoat to cover the roof. Instead of an acrylic topcoat like that applied in the past, Kymax<sup>®</sup>, a new elastomeric coating by United Coatings Corporation was selected.

Kymax<sup>®</sup> is a thin-build coating that provides color stability, resistance to dirt build-up, and weather resistance. It is based on Kynar Aquatec<sup>®</sup>, a new emulsion-based




**Project:**  
North Shore Congregation Israel  
Chicago, IL

**Coating:**  
Kymax<sup>®</sup>

**Coating Supplier:**  
Quest Construction Products,  
Home of United Coatings  
Phoenix, Arizona

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PVDF fluoropolymer technology developed by Arkema Inc. that provides the same durability and performance as Kynar 500® PVDF resin-based coatings.

However, unlike factory-applied Kynar 500® resin-based coatings, coatings based on Kynar Aquatec® cure at ambient temperatures, meaning they can be field applied to a variety of substrates, including metal, PVC, SPF, concrete and wood, and as a finish coat over acrylic basecoats.

Available with a 20-year warranty from United, the Kymax® coating also features a low-VOC formulation that made it

ideal for North Shore Congregation Israel, where exodus during the application was not possible.

Another benefit of the coating is the potential energy savings created by its ability to resist dirt pick-up, biological growth and other external factors that reduce the reflectivity of traditional roofing materials.

### **Pleased with New Topcoat**

Insulated Roofing Contractors (IRC) of Louisville, KY handled the re-roofing project. "This was the first time we used the Kymax® coating, and were pleased with its application and the

end result," said Jim Kaiser, IRC's senior project manager.

"And, we believe it will rise in popularity as more and more environmentally friendly building codes are implemented across the country," he adds.

When the time came to begin work, IRC separated the roof into four sections, completing one area before moving to the next. The process included removal of the old SPF and coatings, installation of new SPF insulation over the exposed concrete roof deck, application of two layers of acrylic base coatings and then two layers of Kymax® finish coats.

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