

PPG Profiles

Jacob K. Javits
Convention Center
New York

Case Study



Owner

The New York Convention Center Development Corporation

Architect

Pei Cobb Freed & Partners, New York

PPG Metal Coatings

PPG DURANAR® Coatings

Curtain Wall Designer, Fabricator and Installer

ENCLOS, New York

PPG Certified ApplicatorSM

Keymark Corp.; Fonda, New York

Project Overview

Few cities appreciate an encore performance more than New York, so it was an honor when PPG DURANAR® coatings were selected to reprise their role as the metal coating of choice for the Jacob K. Javits Convention Center in Manhattan.

Modeled after London's iconic Crystal Palace, the original Javits Center opened in 1986 and immediately gained status as the largest space frame structure in the world. In addition to incorporating a luminous glass and metal framework with brilliant views of the Hudson River and the city skyline, the groundbreaking project was characterized by the extensive use of black PPG *Duranar* coatings.

Today, nearly four decades after its debut, Javits Center is undergoing a major renewal. A \$1.5 billion expansion will stretch the capacity of the convention center to 3.3 million

square-feet of event-related space, including more than 350,000 square-feet of function space, a one-acre rooftop farm and a rooftop pavilion capable of hosting up to 1,500 guests.

Despite the breadth of the expansion, the essential design of the center will remain unaltered, with the structure's signature glass and metal façade expanding to accommodate the vast new enclosures. Another consistent design element is the widespread use of PPG *Duranar* coatings, which are being applied throughout the curtain wall cladding in five additional color formulations by Keymark Corp., a long-time member of the PPG CERTIFIED APPLICATOR PROGRAM™ (PPG/CAP).

Teamwork, Technical Expertise Deliver Success

When executing a project as large as the Javits Center expansion while seeking to remain true to its original design, it helps to work with familiar companies and familiar products. That's why ENCLOS, Keymark and PPG were selected to supply, design and install the building's curtain wall components.

ENCLOS already had gained extensive experience with Javits Center, having replaced its entire curtain wall in 2010. Similarly, PPG coatings were used throughout the exterior structure when it was constructed in the mid-1980s. Keymark became an essential addition to the project for two reasons. The first was its high-performance paint lines and all-inclusive downstream operational capabilities; the second was its ability to deliver exceptional quality while applying difficult paints.



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Judson Nolf, PPG technical services manager, exterior building products, said the five colors specified for Javits Center presented Keymark and PPG with a unique challenge, largely because every formulation, with the exception of a standard gray PPG *Duranar* coating, included mica and metallic effects.

As an example, he cited the PPG *Duranar* Platinum Mica coating, which was specified as a primary color for the project. “This coating is as close to a transparent straight mica coating as a manufacturer can make,” he explained. “It is extremely critical to maintain consistent film thicknesses and coverage throughout in one pass whenever possible and to minimize repaints, as even the slightest variation in film thickness can intensify the richness or saturation of the color.”

Judson said that’s where Keymark’s technical ability and rigorous quality control were critical. “Keymark is very cognizant about monitoring the quality of their outgoing material,” he said. “They set the bar for a high standard as far as consistency is concerned, especially with color. Visual and non-destructive testing is performed on the top, middle and bottom of each die’s test part on every run to verify that it meets their strict tolerances for performance and color consistency.”

Brent Slaton, national sales coordinator for Keymark, said Javits Center benefitted similarly from his company’s close relationship with its coatings supplier. “PPG has one of the best technical teams in the industry and their assistance with this project was vital to its success,” he explained.

PPG worked with Keymark for months to tweak colors and modify formulations to accommodate its application equipment. “We basically reverse-engineered each color they specified in our technical lab, then verified the color matches using our own vertical disk equipment before doing trials on Keymark’s vertical disk lines,” Judson explained. “Large-batch production of the various colors used on this project did not begin until everyone was satisfied that the specifications were being met.”

Other PPG *Duranar* coatings used on Javits Center included White Ice Metallic, Cosmic Gray Mica and Metallic Dark Gray. Using coatings with complex effects in one color on a curtain wall—let alone in combination with others in a different hue—presented the coatings manufacturer and applicator with an array of complications.

“The White Ice Metallic color was a very difficult coating to spray because it is a metallic coating that requires a four-coat application,” said Slaton. “For that reason, there were many opportunities for mistakes that mandated extra precautions and controls. PPG understood that, and that’s one of the many ways they helped us make this project a success.”

Today, Javits Center is one of many landmark buildings in the Big Apple protected with colorful PPG *Duranar* coatings. They range from the historic Empire State Building and the award-winning VIA 57 West to multiple projects under construction in the sprawling Hudson Yards development.

As a frequent trade show visitor, Slaton is proud of Keymark’s work on New York City’s burgeoning convention center. “I visit Javits Center from time to time to attend industry conventions and every trip makes me appreciate the work that ENCLOS, PPG and Keymark did as a team on this project.”

Introduced in 1967 as one of the industry’s first high-performance polyvinylidene fluoride (PVDF) coatings for metal building components, PPG *Duranar* coatings have been specified by renowned architects for many of the world’s most recognized architectural landmarks, including the Louvre Pyramid in Paris, Shanghai World Financial Center in China; Petronas Towers in Kuala Lumpur, Malaysia; the Rock & Roll Hall of Fame in Cleveland and Burj Khalifa in Dubai, the world’s tallest building.

About Keymark

Keymark Corp. is a premier, full-service aluminum extrusion company with in-house finishing capabilities encompassing anodizing, casting, extruding, extrusion die construction, painting, thermal barrier, thermal strut and custom packaging. In business since 1964, Keymark manufactures custom and stock extrusions/profiles for a variety of industries including curtain walls, commercial windows and storefronts for the building and construction market. The company has locations in Fonda, New York and Lakeland, Florida.

PPG CERTIFIED APPLICATOR PROGRAM™

To contact a member of the PPG *Certified Applicator Program*, or to learn more about PPG *Duranar* coatings, visit www.ppgmetalcoatings.com or call 1-800-258-6398.

