

PPG Profiles

Discovery Center Union City, Tennessee



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Case Study

The Discovery Center in Union City, Tennessee, is home to a state-of-the-art science and history museum. Built with swooping aluminum panels finished with Duranar and Duranar XL coatings by PPG, the sculpture-like structure is designed to pique the curiosity of passers-by.

Owner

Robert E. and Jenny D. Kirkland Foundation/Discovery Park of America

Architect

Verner Johnson, Inc., Boston

General Contractor

Allen Searcy Builder-Contractor, Inc.; Union City, Tennessee

PPG Metal Coatings

DURANAR® and DURANAR® XL Coatings

Metal Fabricator

Ralph Jones Sheet Metal, Inc.; Arlington, Tennessee

Project Background

During the planning stages for the new Discovery Center at the Discovery Park of America in Union City, Tennessee, the design team at Verner Johnson, Inc., was tasked with creating a unique building that would attract the attention of passers-by on U.S. Route 51 in northwestern Tennessee and pique their curiosity about the attractions featured inside.

With the help of *Duranar* and *Duranar XL* coatings by PPG, architects succeeded in that task and more, creating a bright white, modern, sculpture-like building that Robert E. Kirkland, co-founder of Kirkland's home décor stores and the center's main benefactor, calls a masterpiece.

Home to a state-of-the-art science and history museum, the 100,000-square-foot Discovery Center is the new cornerstone of Discovery Park of America. Built on a former 50-acre cornfield, the center fulfills its attention-grabbing mandate by incorporating more than 105,000 square feet of swooping, sloping and curved Reynobond aluminum composite panels by Alcoa Architectural Products (AAP), finished with Pure White *Duranar* coatings and Bright Silver Metallic *Duranar XL* coatings.





"We wanted to design a building that was uplifting, exciting and soaring on the exterior and that drew inspiration from the exhibits and galleries inside it," explained Louis Sirianni, FAIA, principal, Verner Johnson, Inc. "Metal panels lend themselves to bright finishes. Brick wouldn't work for a design like this."

Signature exhibits include an interactive starship, a giant slide through the human body and an earthquake simulator. A total of nine exhibition galleries focus on topics such as natural and regional history, science, space and energy.

The center is anchored by a 120-foot-tall observation tower resembling a spaceship, with a futuristic look that stands in stark contrast to the surrounding silos, pastures and farmland. The Reynobond panels on the tower façade, building façade and coping were finished with Pure White *Duranar* coatings, while the bottom edge of the building and penthouse roof were trimmed with Bright Silver Metallic *Duranar* XL coatings.

"White and silver come to mind when I think about something bright, uplifting and inspiring, which followed our pattern of thinking in terms of the building's aesthetic objective," Sirianni said. "We wanted to blend the two colors, so we chose to use them based on where they looked good."

Though the architects had a specific aesthetic vision for the building, Sirianni said durability and maintenance were equally important factors to consider, which is why he specified Reynobond ACM finished with *Duranar* coatings for the project.

Metal fabricator Ralph Jones Sheet Metal, Inc., curved and installed the metal panels with a dry-seal system. The building's gutters and downspouts were fabricated with Reynolux flat sheet material by AAP, which also was finished with *Duranar* coatings to match the rest of the façade.

"As architects, we are always concerned about the longevity of a building," he said. "The entire exterior façade was finished with these coatings, and our criterion for choosing a product for this project was that it would maintain its quality for a long time. AAP and PPG are two companies with longstanding reputations for proven product quality."

Standard *Duranar* fluoropolymer coatings are two-coat systems formulated to provide excellent performance against weathering in normal environments. They are ideal for roof and wall panels. *Duranar* XL coatings are three-layer systems consisting of a urethane primer coat, a decorative color coat and a protective fluoropolymer clear coat.

Duranar and *Duranar* XL coatings are engineered to meet American Architectural Manufacturers Association (AAMA) 2605 specifications, the industry's highest performance standard for durability and weathering. In addition to providing decades of colorfastness and gloss retention, both products offer exceptional resistance to abrasion, chalking, fading, chipping and peeling in challenging building environments.

To learn more about *Duranar* and *Duranar* XL coatings, visit www.ppgmetalcoatings.com or call 1-800-258-6398.



*The Discovery Center is the cornerstone of Discovery Park of America, which was built on a former 50-acre cornfield. The structure's futuristic-looking exterior is finished with Pure White *Duranar* coatings and Bright Silver Metallic *Duranar* XL coatings by PPG.*

