ARKEMA

Case study

KYNAR 500®

Then and Now:

Landmark Projects with Kynar 500® PVDF-based Coatings and PPG Duranar® Coatings

PPG

SUMMARY

LOCATION
Scottsdale, Arizona

ARCHITECTS
DWL Architects + Planners Inc., Phoenix and Douglas Sydnor Architect and Associates, Scottsdale.

COMPONENT MANUFACTURER
Morin Corporation (Fontana, California)

COATING
PPG Duranar® VARI-Cool

TECHNOLOGY
PVDF-based Coil Coating

DATE OF ERECTION
2009

CASE STUDY

APPALOOSA LIBRARY

The Appaloosa Library utilizes PPG Duranar® VARI-Cool® iridescent coating technology to offer a color-changing appearance that stays cool at the same time. PPG has been a licensee of coatings made with Kynar 500® PVDF since 1965.

The one-story Appaloosa Branch Library in Scottsdale, Ariz., is a departure from libraries of the past that featured dark wood and dim lighting. As you approach the Library, the building's metal skin—20,000 square feet (1,858 m^2) of wall cladding from Morin Manufacturing—changes colors. "It's primarily silver-gray straight on, and then as you get off to an angle you see a grayish green," Jeremy Jones, AIA, of DWL Architects + Planners Inc., Phoenix, explains. "As you get parallel to it, it goes dark green or a purplish color. As you're driving up to it, some of the walls look bright pink and some look bright green, creating the mirage effect."

When Jones and fellow architect Doug Sydnor of Douglas Sydnor Architect and Associates Scottsdale got together to collaborate on a new library in the desert, they decided they wanted something thoroughly modern and functional, with the crispness of steel design, but with something a little extra.

The mirage effect they achieved was created through the first commercial use in the U.S. of PPG DURANAR® VARI-Cool iridescent coating on the metal cladding. Manufactured by the Pittsburgh-based company, the coating is composed of mica chips in a clear base, creating colors by light interference patterns.

PPG Duranar VARI-Cool coatings are engineered with Kynar 500® high-performance fluoropolymer resins. With exceptional color and gloss retention performance, they keep metal looking vibrant and appealing for decades

When applied and cured on properly prepared substrates, PPG Duranar VARI-Cool coatings offer brilliant colors along with exceptional color stability, chalk resistance, durability, abrasion resistance, chemical resistance and flexibility.

The fleeting mirage fashioned by the "kaleidoscope" colored coating harmonizes with the color-shifting desert setting. The light-gray-green tint, for instance, matches surrounding plants and symbolizes the library's reduced environmental footprint.

PPG Duranar VARI-Cool coatings also help minimize the building's environmental impact, as it is the only polychromatic coil coating integrating energy-saving ULTRA-Cool technology. In addition to changing colors, the pearlescent pigments reflect the sun's infrared [heat] energy, which helps the library stay cool and thereby consume less energy for air conditioning, even in the hot Arizona sun.

Even now, sixteen years later, the dramatic and dynamic color scheme remains fresh and inviting, admirably weathering the hot Arizona sun, thanks to the Kynar 500® PVDF-based coating by PPG.

SUMMARY

LOCATION
Pittsburgh, Pennsylvania

ARCHITECT
Hellmuth, Obata & Kassabaum
New York, New York

ARCHITECTURAL COMPONENTS
Aluminum Panels

COMPONENT MANUFACTURER
Cupples Products Division of
H.H. Robertson Co., St. Louis, Missouri

COATING
PPG Duranar® XL Coating

COATER
ALCOA Corporation

DATE OF ERECTION
1982

CASE STUDY

ONE OXFORD CENTRE

Built in 1982, the shape of One Oxford Centre in downtown Pittsburgh is four octagons gathered about a central axis, providing maximum utility as well as a striking, multi- faceted appearance. Sheathed entirely in reflective glass and silver-gray coated aluminum, One Oxford Centre fulfills the architect's vision of a building that is light and airy, despite it's scale, that glistens in the sunlight.

Approximately 384,000 square feet of paneling finished with PPG DURANAR® XL metallic coil coating system wraps around the 46-story office building as it stretches skyward like a pyramid. The scintillating tower owes its sparkling good looks in part to an exterior architectural metal finish based on Arkema's Kynar 500® fluoropolymer.

The three-coat architectural finish provides the requisite bright metallic look, along with the unmatched durability of KYNAR 500® PVDF-based coating.

In fact, decades later, the bright shine of the coating continues to beautify the Pittsburgh skyline.

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