During their 40-year history, Duranar coatings have become recognized as the industry standard for exterior fluoropolymer coatings, thanks primarily to the product’s unmatched durability as well as the accentuated level of color-making and color-matching expertise PPG offers.

In recent years, despite the proven track record of Duranar coatings, many architects and specifiers have begun to regard exterior fluoropolymer coatings as generic products with little discernable difference in durability, color quality, color selection or corrosion, chemical and abrasion resistance.

This has led to a proliferation of “Duranar or equal” specifications that disregard the advantages of using Duranar coatings, which offer a host of benefits not available with competing coating products.

This document outlines the performance and aesthetic benefits associated with Duranar coatings, and explains why these products differ from competing exterior fluoropolymer coatings. The paper also details the advantages of working with members of the PPG Certified Applicator℠ Program (PPG/CAP).

Formulation
The Duranar Coatings Advantage

Not all exterior fluoropolymer coatings, also known as 70% polyvinylidene fluoride (PVDF) coatings, are created equal. Duranar coatings are superior because they are manufactured with 80% proprietary PPG products consisting of three distinct components:

Part 1: Proprietary PPG Resin System
The first component in Duranar coatings is the proprietary resin system. Seventy percent of this resin system is formulated with polyvinylidene fluoride (Kynar 500® or Hylar 5000®), while the remaining 30% of the resin system is made with a proprietary PPG resin. As the chart on page 2 demonstrates, the resin system represents less than 1/3 (28%) of the total coatings formulation.

Part 2: Proprietary PPG Color Pigments
The second component in the Duranar coatings formulation is proprietary color pigments that have been tested on literally thousands of exposure sites. None of the color pigments are added to the Duranar coatings palette until they have been exposure-tested under harsh conditions for a minimum of 10 years. Proprietary PPG color pigments constitute 18% of the Duranar coatings formula.

Part 3: Proprietary PPG Solvents
The third, final and largest component in Duranar coatings is the solvent. The quality of the solvent in a coating is critical because it dissolves the resin to the desired consistency, disperses the pigment evenly throughout the coating and eases application. Proprietary PPG solvents make up 54% of the Duranar coatings formulation.

Given the array of ingredients required to make them, identifying Duranar coatings as 70% PVDF fluoropolymer coatings is somewhat misleading. That’s because, as the chart on page 2 shows, this “generic” ingredient represents just 20% of the total product formulation. The other 80% of the Duranar coatings consists exclusively of proprietary PPG products.

This 80% difference is where Duranar coatings establish their performance edge. By formulating these products with proprietary resins, pigments and solvents developed and used exclusively by PPG, Duranar coatings are able to achieve the following performance advantages:

- More than 40 years of proven performance on buildings of every type in every climate
- Longest color life and chalk resistance
- Superior corrosion resistance
- Exceptional chemical, humidity and salt spray resistance
- Excellent flexibility to cope with temperature-related expansion and contraction
PPG has manufactured Duranar® coatings for aluminum for more than 40 years, making it by far the industry’s most trusted and specified brand of exterior fluoropolymer coating. In fact, the company is the only remaining original licensee of Kynar 500®, the first-generation PVDF resin that serves as a base ingredient for Duranar coatings.

The success and durability of Duranar coatings is due to the broad experience PPG has in architectural coatings along with its expertise in a wide variety of other coatings applications, from auto and airplane finishes to consumer electronics, appliances, boat hulls and golf balls. By synthesizing its expertise with the technical and aesthetic aspects of color, as well as its familiarity with numerous wear conditions, PPG is able to develop proprietary coatings that provide beauty and protection to an exceptional array of aluminum architectural components, such as building panels, curtain walls, louvers and more.

With all this experience, it no coincidence that, with millions of gallons applied to buildings around the world, Duranar coatings have achieved a failure rate of less than one one-hundredth of a percent (< .001%). Ultimately, the result of this superior performance is peace-of-mind for building owners and architects that far outweighs any incremental cost increases associated with specifying Duranar coatings over generic "or equal" products.

Duranar coatings are formulated with a proprietary PPG resin, a PVDF fluoropolymer resin, and proprietary PPG pigments and solvents. These proprietary products from PPG give Duranar coatings durability and colorfastness unmatched in the industry.

70% Fluoropolymers - Raw Materials

70% KYNAR 500® or HYLAR 5000®
(70% of the resin system is Kynar 500 or Hylar 5000)
Kynar 500 – Arkema
Hylar 5000 – Solvay Solexis

Experience is the Difference

The Color of Duranar Coatings

Durability is one way to measure the performance of an architectural coating. Another is its appearance. Duranar coatings are available in more than 75,000 colors, with 1,000 new colors added to the database every month. Together, these tints represents the industry’s widest color palette.

Along with an extensive color palette, Duranar coatings also are backed by an unequalled color-making and color-matching capability. The key is PPG’s proprietary Kaleidoscope™ Color Management System. This digitally-based color calibration system ensures color consistency throughout the manufacturing process, from the production of the first sample to the actual application of the coating on the building.

That means, unlike other coatings manufacturers who use one process to create color samples and another to produce the actual coatings, PPG uses the same process throughout. This offers advantages beyond more precise color calibration and color-matching; it also permits the economical manufacture of small-batch coatings. This facilitates faster delivery of coatings to the work site as well as reduced customer inventory and costs.

More than any other coatings manufacturer, PPG has also mastered the art and science of matching color across varying metal substrates and components. The company is especially adept at matching color across the different coating products, including fluoropolymers like Duranar coatings, as well as coatings based on acrylics and polyesters.

These dual areas of expertise offer architects and building owners the highest possible degree of color harmony across every surface of their building.
Another way PPG helps to ensure the superior appearance and performance of Duranar coatings is through the PPG Certified ApplicatorSM Program (PPG/CAP).

The PPG/CAP program encompasses a select nationwide network of exceptional coating applicators whose facilities and quality control processes are rigorously audited by PPG to deliver the highest possible level of product quality, customer service and technical expertise.

PPG Certified Applicators are also electronically integrated into the company’s Kaleidoscope™ Color Management System, which incorporates a uniform color calibration system and the mandated use of PPG-designated software and equipment.

The result is a level of color consistency and product quality that is usually unattainable through the traditional acquisition of high-performance coatings. In addition to enhanced coating consistency and quality, CAP members provide a heightened level of customer service, typified by the following benefits:

- **Priority Service on Color Samples**
- **Preferred Access to Proprietary PPG Coatings** – These include new products such as Duranar® XL and Coraflon® EX.
- **Major Project Assistance** – Including job site visits and consultations when necessary.
- **Regional Sourcing** – From a nationwide network of integrated CAP participants.
- **Accelerated Delivery Schedules** – For fast-track construction projects.
- **Access to the World’s Largest Color Database** – The PPG master color standards database already encompasses more than 75,000 colors, glosses and tints, a list that is expanding by more than 30 colors per day.

For more information on the advantages and benefits of specifying Duranar coatings by PPG, visit www.ppgideascapes.com or call 1-888-PPG-IDEA.