



## VitraSOL 5000 Series

VitraSOL powder coatings are high performance, high quality, durable coatings developed specifically for architectural applications. These are a great alternative to liquid, anodized, and other architectural finishes as they are suitable for use in aluminum for both exterior and interior applications.

Our VitraSOL 5000 powder coatings are designed to meet the most demanding weather and UV resistance as per AAMA 2605-20. This technology requires the use of a fluoropolymer such as polyvinylidene fluoride (PVDF) or fluoroethylene vinyl ether (FEVE), as well as high performance pigments and all necessary ingredients designed to meet stringent AAMA performance standards. These characteristics make it ideal for prestigious and monumental projects.

### GENERAL APPLICATION

Aluminum extrusions such as:

- Commercial including high rise buildings
- Rails, fencing, and gates
- Window frames

### ABOUT THE PRODUCT

**Standard Packaging:** 25 lb or 55 lb (25 kg) box containers

**Specific Density:** (ASTM D792) Approximately 1.4 - 1.8 g/cm<sup>3</sup> depending on pigmentation

**Storage Stability:** 6 months at no more than 77°F (25°C), avoid exposure to direct and prolonged heat

*(The original production date determines the start of the shelf life)*

### PROPERTIES

- Outstanding color retention and superior chalk resistance
- Good chemical resistance
- Excellent mechanical performance
- Formulated to meet AAMA 2605-20 specifications

**Finish:**

Finish	Typical Gloss
Smooth/ non-metallic Solid colors and selected pearlescent are also available	20 - 70 *

*\* Some products may be available outside the typical gloss range.*

Most custom colors are available on orders of no less than 100 kg (220 lbs).

### PRETREATMENT (ONLY FOR ALUMINUM)

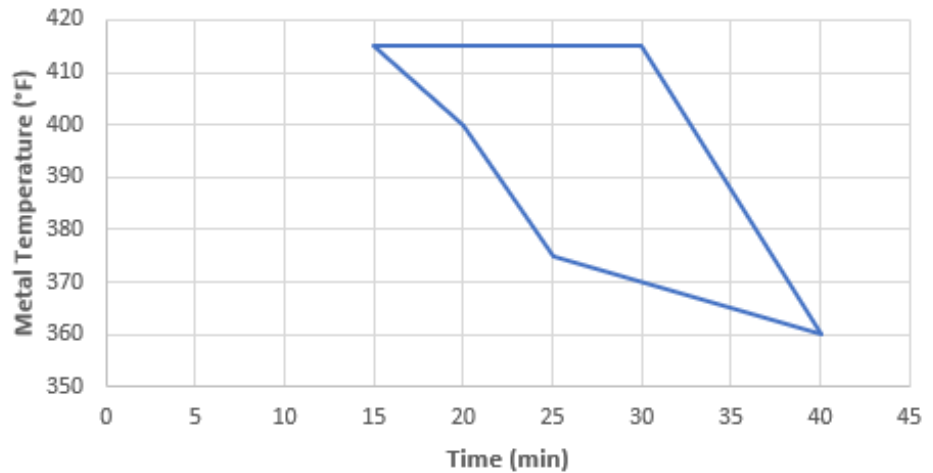
- Chromium chromate or chromium phosphate coating weights
- Alternative chrome and/or non-chrome conversion
- A primer is recommended for harsh environments

Check the suitability of the pretreatment according to the test specification of AAMA 2605-20 point 8.8.1. and 8.8.2.



## CURE PARAMETERS

VitraSol 5000 Cure Window



Carefully observe curing parameters as mechanical properties will develop prior to full crosslinking.

## KEEP IN MIND

Curing of VitraSOL 5000 Series will result in the release of small doses of caprolactam, which may cause smoke and a slight odor. Provide adequate ventilation and observe maximum concentration guidelines.

Sealant selection must meet AAMA 800.

## PROPERTIES ON ALUMINUM PANELS (0.7 MM THICKNESS)

The actual performance of the product may vary due to specific product properties such as gloss, color, effect and finish, as well as environmental and related influences with the application

TEST	METHOD	RESULTS
Recommended Film Thickness	ASTM D7091	50 - 75 $\mu$ m (2.0 - 3.0 ml)
Gloss @ 60°	ASTM D523	20 - 70 GU
Adhesion Test	ASTM D3359	4B, Method B
Direct Impact	ASTM D5420	20 in/lb, no film removal with tape
Dry Film Hardness	ASTM D3363	min F
Resistance to Humidity	ASTM D2247	4000 hrs, no more than "few" blisters size 8
Corrosion Salt Spray	ASTM B1117	4000 hrs, 1/16 max scribe, none or few #8 blisters
Natural Weathering	10 years @ 45°, South Florida	DE < 5 (Hunter) , min 50% gloss retention
Weathering (chalking)	ASTM D4214, Method A	< No. 8

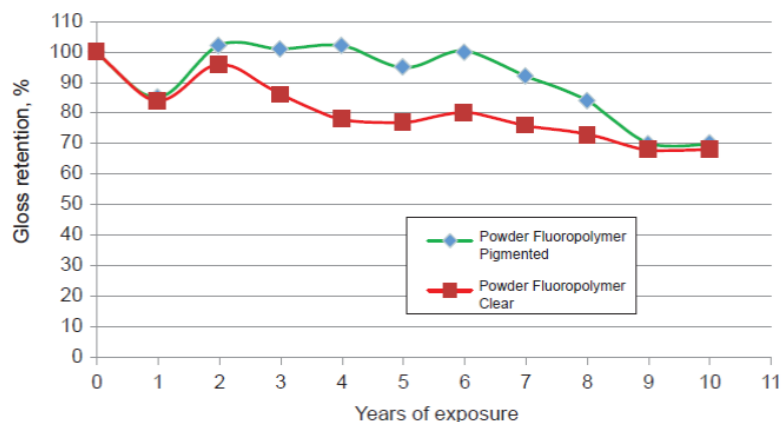
## KEEP IN MIND

Since the conditions of some tests required by the AAMA 2605-20 specification, in particular the long-term exposure in Florida, require significant time, full compatibility of this product with AAMA 2605-20 specifications has not been evaluated for all colors.



Since these test cycles are very long, the products are being tested through intense accelerated weathering tests as per industry standards. The performance set out in this Technical Brief is based on the respective accelerated weathering data with tests QUV-A and B, and Weather-o-Meter as well as coating technology references related using comparable polymer systems.

## South Florida Exposure of Powder Fluoropolymer Coatings



Ref: Handbook, Volume 5B, Protective Organic Coatings K\*

## CHEMICAL RESISTANCE

### Cleaning Recommendations

Coating can be easily cleaned as needed with mild detergent or approved chemicals per AAMA 2605-20.

## APPLICATION INSTRUCTIONS

For best results we recommend using Corona charging application devices, either Manual or Automatic and applied onto an aluminum surface at ambient temperature. Corona is the process of inducing a static electric charge on powder particles by passing the powder through an electrostatic field generated by a high voltage device.

### Application:

- Electrostatic Spray with Corona gun
- Surfaces should be free of dirt, grit, oils and other soils, salts, and oxidation products
- Follow pre-treatment recommendations as per AAM2605-20 Section 7.0

## DISCLAIMER

Our verbal and written recommendations for the use of our products are based on experience and in accordance with pre-established technological standards. These are given to support the buyer or user. They are not binding and do not create additional commitments to the purchase agreement. They do not exempt the buyer from verifying the suitability of our products for the intended application. We guarantee that our products are free from defects. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

As part of our product information program, each of our Technical Data Sheets are updated periodically, so the latest version will prevail. Therefore, visit our website [www.vitracoat.com](http://www.vitracoat.com) or contact our customer service team for the most up-to-date version. The information in our Technical Data Sheets is subject to changes without notice.