

## PRODUCT DESCRIPTION

Stonium PVDF Coating is a PVDF coating system that replicates stone, marble & granite that is used for architectural purposes. This coating system is a modified Duranar XL fluoropolymer coating system. Stonium Coatings use a patented primer coat, durable colour coat, durable pattern coats layers and durable clear coat. All coats combine proprietary resin and pigment technologies with 70% of the resin system being fluoropolymer base resins.

Stonium PVDF Coatings have demonstrated proven performance on exterior aluminium surfaces, especially in seaside and corrosive industrial environments. This coating is resistant to chalking, fading, chipping and peeling when properly applied by an approved applicator. The primer coat, colour coat, pattern coat and clear coat meet AAMA2605 standards.

## SYSTEM OVERVIEW

Stonium PVDF Coating provides an alternative product to natural stone, marble & granite. Stonium coating is specialized for exterior architectural applications; such as aluminium extrusions and panels.

Stonium PVDF replicates the patterns of a targeted material. Data is collected from a physical target, to identify the patterns, colours and texture of the target. Once this data is collected, graphic engineers can customize the appearance and alter the finish to the clients liking. The amount of layers within the pattern coat can vary depending on how many colour patterns are required to match the appearance of the target.

The pattern coat replicates the patterns and colours of the targeted material. These patterns are painted in between the colour coat and clear coat layers. The pattern coat uses the same paint as the colour coat paint, carrying the same properties and function as the colour coat.

During the coating process, the pattern coat is painted with a technique to minimize repetition from panel to panel. This process allows the coating finish to mimicking the organic appearance that is attained by natural materials.



Taiping Finance Tower, Shenzhen

## COMMERCIAL USES

Stonium PVDF Coating uses spray-applied extrusion paint to achieve the look and feel of stone, marble & granite for exterior architectural applications. Stonium coating is the coating choice for use on pre-formed aluminium components such as cladding, curtain wall panels, and louvers. These Stonium coated aluminium components are used to replace stone, marble & granite facades. These components will reduce the building's overall building load, increase the longevity of the facade, and speeds up the installation process.



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## PRODUCT ADVANTAGES TABLE



STONE VS STONIUM PVDF COMPARISON TABLE		
ITEMS	STONE PANEL	STONIUM PANEL
1) Building Dead Load	Very Heavy (1:10)	Very Light
2) Installation Speed	Slow	Fast
3) Weather Resistance	Risk of weathering & erosion	PVDF coating can withstand weathering & UV very well
4) Safety	Potentially very dangerous	Not very dangerous
5) Law Regulations	Potential restrictions to install on high rise buildings	Restriction free by law
6) Durabilty	Brittle	Resilient
7) Appearance Control	Inconsistend; color deviation from weathering	Completely customizable
8) Pattern Supply	Limited for each batch	Unlimited
9) Maintenance	Difficult	Convenient
10) Lifespan	20-30 years	50 years or more

This comparison table is for reference only. Stone characteristics may vary.

## PRODUCT DATA

STONIUM PVDF SPECIFICATIONS	
<b>Colour Available</b>	To replicate target's colour and appearance
<b>Dry Film Thickness</b> ASTM D1400	0.25 ± 0.05 mil primer 1.0 mil min. color coat 0.25 ± 0.05 mil per pattern coat (layer quantity varies) 0.6 ± 0.2 mil clear top coat
<b>Gloss</b> ASTM D523 @ 60°	Matte to Medium Gloss
<b>Pencil Hardness</b> ASTM D3363	F min.
<b>Cross Hatch Adhesion</b> 1/16" wet and dry	Excellent - No removal
<b>Direct Impact</b> 1/10" distortion	Excellent - No removal
<b>Abrasion - Falling Sand</b> ASTM D968	40 - 80 l/mil
<b>Acid Resistance</b> ASTM D1308 10% muriatic acid spot test	15 minutes - No attack
<b>Alkali Resistance</b> Mortar pat test 100% relative humidity @ 100°F	24 hours - No attack
<b>Detergent Resistance</b> 3% immersion @ 100°F	72 hours - No attack
<b>Salt Spray Resistance</b> ASTM B117, 4000 hrs. 5% NaCl @ 100°F	1/16" max. undercutting
<b>Humidity Resistance</b> ASTM D714, ASTM D2247, 4000 hrs. 100% relative humidity @ 100°F	Few #8 blisters max.
<b>Exterior Exposure</b> 10 yrs. @ 45°, south Florida ASTM D2244 ASTM D4214 ASTM B244 (Erosion)	Max. 5 fade Max. 8 chalk Max. 5% film loss