

Introducing The Echelon Collection Hyper Durable Powder Coatings for Superior Weathering Performance

From commercial to monumental applications, Syntha Pulvin® Echelon range is the best solution for architects seeking to preserve the long-term integrity of their building and design.

Benefits

Echelon Collection products are formulated using fluoropolymer resin technology and solar-reflective pigments. Fluoropolymer resins have been a key component in architectural coatings due to their superior UV resistance.

The combination of fluoropolymer resin and solar reflective ceramic pigments defends against ultraviolet radiation, enhancing thermal stability to combat wear and tear of the coating and prevent costly repairs. Echelon products are a hard, durable finish that provides excellent gloss retention and resistance to chalking and color fade. It is designed to meet or exceed the expectations of the AAMA 2605 specification.

Echelon – Hyper durable architectural powder coating provide:

- Superior weatherability
- 10 years Florida – AAMA 2605 compliance
- Outstanding resistance to fading and chalking
- Excellent hardness and scratch-resistance for high-traffic areas in airports, shopping centers, and educational facilities
- Very good overall adhesion
- Low impact on environment.

Application Areas

Echelon collection products are ideal for external use on monumental high rise structure and pre-engineered buildings, including:

- Architectural curtain-walls
- Aluminum panels and extrusions
- Architectural windows.

Echelon products are available in a variety of colors selected specifically for the architectural market.

Advised Cycles

Substrate should be free of grease, oil, dirt, fingerprints, drawing compounds, any contamination, to ensure optimum adhesion and coating performance properties. The use of a chemical conversion coating prior to the application of a powder coatings is strongly recommended.

For aluminum
A minimum of a 5-stage metal cleaning and pretreatment system, or equivalent (e.g. NABUTAN 310), is recommended for good adhesion and optimum coating performance properties.
If AAMA 2605 performance is required, the AAMA 2605 pretreatment guidelines must be followed.

Technical Data

| Code Int. | Method | Range | Reference Method |
|-----------|---|---------------|----------------------|
| P/CL092 | Calc. specific gravity(kg/l) | 1.5 - 1.7 | |
| P/CL120 | Non volatile content(w/w)(%) 3h at 105 °C | 100.0 - 100.0 | UNI EN ISO 3251 |
| P/CL143 | 50µm Theor. spread. rate (m2/kg) | 12 - 13 | |
| P/CL210 | Water content (%) | 0.0 - 0.0 | |
| P/CS010 | Dry film thickness(microns) | 50 - 76 | UNI ISO 2178 |
| P/CC050 | Gloss 60° | 10.0 - 29.0 | UNI EN ISO 2813:2014 |

Weathering Performance

| Florida 45° South (10 years exposure) | |
|---------------------------------------|------------------------|
| Color | <5 delta E |
| Chalk | Max 8 only on colors |
| Chalk | Max 6 rating on whites |
| Gloss | >50% Retention |

Handling and Storage

Echelon collection products should be kept in a dry and cool area at temperatures below 27 °C.
When not in use, store powder in sealed containers: fine powders are hygroscopic.
Storage life in original package: 12 months.

Application Method

It is advised to apply the product by electrostatic application with a dry film thickness of 50-80 microns and to stove at 205 °C for 10 minutes (temperature of the support).

Technological Features and Resistance Test

| | |
|--|--|
| Adhesion (ASTM D-3359) | Minimum 4B |
| Direct Impact Resistance | >= 3mm of deformation with no loss of adhesion |
| Acid Resistance (ASTM D3260) Muriatic Acid 10% for 15min | No effect |
| Alkali Resistance (ASTM D3260) Mortar Resistance for 24h | No Effect |
| Detergent Resistance (ASTM D2248) 3% Immersion @ 38 °C for 72h | No effect |
| Humidity (ASTM D-4585) | Pass 4000 hours |
| Salt Spray (ASTM G85 Annex A5) | Pass 2000 hours |

Note to User

The information contained in this document, while based on evidence and reliable methods, cannot be considered exhaustive.

This information is current to the date of issuance of this data sheet; therefore it is the user's responsibility to verify that the data provided on this sheet is current to the date of the product.

The user, under their own responsibility, shall respect all the existing provisions on hygiene and safety and shall verify every time the features and the specific and appropriate way to use the product because the user's respect of the provisions is not under the producer's direct control.

The manufacturer does not guarantee nor assume any liability or responsibility for harm that might result from a misuse of the product or for damages that have arisen after the product's distribution.

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