

Product specifications of

ALUM*A*STAR® 50

2-coat solid color liquid spray exterior metal finish for architectural extrusion applications



AkzoNobel

Tomorrow's Answers Today

Why is ALUM*A*STAR® 50 a sure bet to attract building owners, architects, curtain wall designers and window fabricators to your business? Because we feel it's simply the best AAMA 2604 system available.

There are many projects that require a high performance coating, but not the "Superior" performance as required by AAMA 2605.

ALUM*A*STAR® 50 was created to bridge the large performance gap between AAMA 2603 (Residential) and AAMA 2605 (Superior Performance).

As the name suggests, this brilliantly formulated product contains 50% polyvinylidene fluoride (PVDF) resin as opposed to the 70% requirement of the AAMA 2605 specification. This very dynamic resin provides the strongest molecular bond found in the building and construction coatings market. Its carbon/fluorine bond is the key to ALUM*A*STAR® 50's excellent thermal, chemical and ultraviolet resistance properties.

ALUM*A*STAR® 50 was not designed to take the place of TRINAR®, which is our flagship 70% PVDF coating system. TRINAR® offers superior performance and color stability as required by the AAMA 2605 specification. ALUM*A*STAR® 50 is for projects calling for a coating that meets the AAMA 2604 specification, and we feel that it's the strongest product on the market today to do this.

To assure proper application, AkzoNobel utilizes a process of Applicator Certification. Only after meeting stringent repeatable quality standards is an applicator granted this approval. This helps protect the integrity of the finish for all parties concerned.

Disclaimer

The information contained herein is correct to the best of our knowledge. It is offered in good faith, but not to be construed as warranties as to performance of results, since the conditions of use of our products are beyond our control. We suggest that you evaluate the information presented here and determine the suitability of our products prior to commercial scale application.

ALUM*A*STAR[®] 50 product specifications

Product Type	50% polyvinylidene fluoride (PVDF) coating.
Specification	Meets or exceeds all AAMA 2604 specifications.
Primer	KY1C17839A
Percent Solids (Package)	Weight solids 47-52%, Volume solids 30-35%.
Percent Solids (Reduced)	Weight solids 37-42%, Volume solids 23-26%.
Reduction	Primer: 1-1 with Xylene. Topcoat: 15-25% by volume of Xylene/Butyl Carbitol blend then add Butyl Carbitol as needed for flow.
Viscosity	Primer: 20-23 seconds #4 Zahn @ 77° F (package), 16-18 seconds on Zahn #2 (reduced). Topcoat: 20-23 seconds #4 Zahn @ 77° F (package), 22-25 seconds on Zahn #2 (reduced).
Film Thickness	Primer: 0.5-1.0 wet mils, 0.2-0.4 mils dry. Topcoat: 3.6-5.6 wet mils, 1.0-1.2 mils dry. Total system: 1.2-1.6 mils dry.
Gloss Range	25 to 35% @ 60° angle.
Cure Schedule	Lab bake cycle 10 minutes @ 450° F. Production cure varies with line speed and oven temperature. Metal temperature must achieve 450° F and be maintained for 2 minutes minimum.
Cure	H+ pencil hardness and 50 MEK double rubs.

AAMA 2604 specification

Test	Description	Coating Requirements	ALUM*A*STAR® 50 Performance
7.1	Color Uniformity	Visual Control	Instrument and visually controlled
7.2	Specular gloss at 60°, ASTM D 523	Medium and low gloss ranges	Controlled to custom spec ±5 units
7.3	Dry film hardness,	F minimum	H+
7.4	Film adhesion (dry, wet and boiling water), crosshatch 1/16 inch squares	No removal between scribed times	No removal
7.5	Impact resistance (direct) 0.10 inch distortion	No removal of film	No removal
7.6	Abrasion resistance, ASTM D 968	Abrasion coefficient value, 20 minimum	Exceeds spec
7.7.1	Chemical resistance (10% muriatric acid)	15 minutes, no visual changes	Meets or exceeds spec
7.7.2	Chemical resistance (mortar, alkali)	24 hours, no visual changes	Meets or exceeds spec
7.7.3	Resistance to acid pollutants (70% nitric acid)	30 minutes, maximum 5ΔE NBS units color change	Meets or exceeds spec
7.7.4	Detergent resistance	72 hours, no effect	Meets or exceeds spec
7.7.5	Window cleaner resistance	24 hours, no visual change	Meets or exceeds spec
7.8.1	Humidity resistance, ASTM D 2247	3,000 hours, few #8 blisters (maximum)	Meets or exceeds spec
7.8.2	Salt spray resistance, ASTM B 117	3,000 hours, minimum 7 rating on scribe and minimum blister rating of 8 in field	Meets or exceeds spec
7.9.1.2	Weathering, color retention, ASTM D 2244	5 years, 45° S. South Florida, max 5ΔE NBS units color change	Meets or exceeds spec
7.9.1.3	Weathering, chalk resistance, ASTM D 659	5 years, 45° S. South Florida, max 8 rating for colors, 6 rating for whites	Meets or exceeds spec
7.9.1.5	Weathering, erosion resistance	5 years, 45° S. South Florida, maximum 20% loss	Meets or exceeds spec

For more information, please contact:

Akzo Nobel Coatings Inc.
1313 Windsor Ave.
Columbus, OH 43211
614.294.3361



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www.akzonobel.com/ccna

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