CERAM-A-STAR E

Ruskin's Baked Enamel Silicone Modified Finish

RUSKIN
AUTHORITY IN AIR CONTROL

CERAM-A-STAR® E is a proven, durable product for aluminum extrusion applications. Its unique resin system gives it superior hardness and mar resistance over other AAMA 2604 products.

Performance	□ Chalk and fade performance comparable to AAMA 2605 □ Performs at the top end of the AAMA 2604 specification □ Proven and tested non-PVDF technology backed with South Florida exposure □ Proven in service for 15+ years □ Full gloss range □ Fluoro-surfactant free formulation
Coater benefits	□ Full range of custom color options available for order □ Fully compatible with standard primer □ Applies with standard reducing solvents and application viscosity □ Higher solids content equates to less material used and lower VOC content □ Lower VOCs and HAPs for green benefit
Specifier/market benefits	□ 2-coat formulation wet-on-wet application with primer for enhanced corrosion protection □ Enhanced aesthetic option including full mica package □ Improved availability over PVDF and no lead time restrictions for quicker turns on projects □ More stable supply and expected price stability vs. PVDF

CERAM-A-STAR E is an exciting solution for aluminum extrusion applications, with proven durability and ease of application.

Available globally, CERAM-A-STAR E is the perfect choice for use in all environments that require an AAMA 2604 product.

Designed to meet the global demand for a mid-level high performance system, CERAM-A-STAR E delivers significant performance improvements over other AAMA 2604 products.

CERAM-A-STAR E is a designed for spray application to aluminum, meeting all the specs of AAMA 2604. Based on a proven coil coating technology, it brings a new level of durability to the mid-level market segment, at an economical price.

CERAM-A-STAR E takes the exceptional performance of CERAM-A-STAR 1050, a market-leading SMP coil coating, and adapts it to the high-performance / AAMA 2604 market segment. CERAM-A-STAR 1050 is the coil coating industry's benchmark silicone modified polyester, with unmatched chalk and fade resistance and exceptional hardness for long-term durability.

CERAM-A-STAR E's performance comes from a proprietary resin formulation that has been proven through real-world testing and field installations for over 15 years. This unique resin system gives it vastly superior hardness and mar resistance over other AAMA 2604 products, which is a major benefit during installation and aggressive environments.

CERAM-A-STAR E has 15 years of South Florida real world weathering exposure data, something that most new coating solutions can't say. Since it's based on an already proven product with millions of square feet already installed in the field, you can rest assured its performance will stand up over time.

To assure proper application, Ruskin 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.

Field Performance

When applied in accordance to specifications the following field performance can be expected from CERAM-A-STAR E.

Film Integrity	20 years
Chalk	Colors: no more than #8 for 10 years Whites: no more than #6 for 10 years
Fade	No more than 5 ΔE Hunter units for 10 years

Disclaimer

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Product Specifications for Aluminum	
Product Type	Silicone-modified polyester coating.
Specification	Meets or exceeds all AAMA 2604 specifications.
Primer	Optional. Recommended in aggressive environments.
Percent Solids (Package)	Weight solids 48-60%, Volume solids 37-45%.
Percent Solids (Reduced)	Weight solids 40-53%, Volume solids 30-34%.
Reduction	15-25% by volume of Xylene/Butyl Carbitol blend then add Butyl Carbitol as needed for flow.
Viscosity	17-19 seconds #3 Zahn @ 77° F (package), 22-25 seconds on Zahn #2 (reduced).
Film Thickness	2.4-4.0 wet mils, 1.0-1.2 mils dry.
Gloss Range	25 to 35% @ 60° angle.
Cure Schedule (Aluminum)	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	**Product Type**	**Coating Requirements**	**CERAM-A-STAR E 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	Meets or 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

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AAMA 2604 Specification			
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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	**Cyclic corrosion testing, ASTM G85, Annex A5**	1,500 hours, minimum 7 on scribe or cut edges and minimum blister rating of 8 (ASTM D 1654)	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