

Product specifications of

TRINAR[®] *ULTRA*

Environmentally-friendly liquid spray 2-coat solid colors
for architectural extrusion applications

AkzoNobel



All TRINAR *ULTRA* coatings are formulations of 70% polyvinylidene fluoride (PVDF) resin, which makes it the best choice for monumental or institutional projects.

Our history with this incredible technology dates back to the early 1970's.

Continually monitored AkzoNobel research and production quality assurance programs have produced years of actual 45° S. South Florida exposure data.

This data demonstrates TRINAR *ULTRA*'s remarkable resistance to exterior weathering such as fading, color change, chalking and cracking.

One of the secrets of TRINAR *ULTRA*'s superior durability lies in the molecular structure of the polyvinylidene fluoride resin. This unique carbon/fluorine bond is the key to unsurpassed thermal, chemical and ultraviolet resistance properties. When coupled with AkzoNobel developed premium ceramic and inorganic pigmentation, this system demonstrates remarkable resistance to weathering, fading, cracking and chalking. When properly applied, TRINAR *ULTRA* easily passes the rigorous testing requirements of the American Architectural Manufacturer's Association specification AAMA 2605.

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.

TRINAR *ULTRA* coatings provide long-term beauty for a wide range of metal building components such as panel systems, curtain-wall, window systems, louvers, canopies, mullions, store fronts and fascia.

If your specifications require a coating for several of these components on the same project, we have formulated TRINAR for both spray

and coil coating applications using the same pigmentation. This ensures continuity of color throughout an entire project.

Why choose TRINAR *ULTRA*?

TRINAR *ULTRA* is the next generation of PVDF coatings. All finish types available in TRINAR are now available in TRINAR *ULTRA* (2-coat colors, TRI-Escent[®] II, TEC and TMC). All color choices from standard TRINAR systems are also available in the *ULTRA* series. TRINAR *ULTRA* is a more environmentally-friendly product, by containing a lower level of VOC's. Durability and performance of TRINAR *ULTRA* is the same as the standard version, easily meeting or exceeding the AAMA 2605 specification.

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.

TRINAR *ULTRA* product specifications

Product Type	70% polyvinylidene fluoride (PVDF) coating.
Specification	Meets or exceeds all AAMA 2605 specifications.
Primer	KY1C17839A
Percent Solids (Package)	Weight solids 49-53%, Volume solids 31-35%.
Percent Solids (Reduced)	Weight solids 38-40%, Volume solids 27-29%.
Reduction	Primer: 1-1 with Xylene. Topcoat: 25-35% by volume of Xylene/Butyl Carbitol blend then add Butyl Carbitol as needed for flow.
Viscosity	Primer: 20-25 seconds #3 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: 1.0-2.0 wet mils, 0.2-0.4 mils dry. Topcoat: 2.5-4.0 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 2605 specification

Test	Description	Coating Requirements	TRINAR <i>ULTRA</i> 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, ASTM D 3363	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
7.7.1	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
7.8.1	Humidity resistance, ASTM B 2247	4,000 hours, few #8 blisters (maximum)	Meets or exceeds spec
7.8.2	Salt spray resistance, ASTM B 117	4,000 hours, minimum 7 rating on scribe and minimum blister rating of 8 (ASTM D 1654)	Meets or exceeds spec
7.9.1.2	Weathering, color retention, ASTM D 2244	10 years, 45° S. South Florida, max 5ΔE NBS units color change	Meets or exceeds spec
7.9.1.3	Weathering, chalk resistance, ASTM D 4214	10 years, 45° S. South Florida, max 8 rating for colors, 6 rating for whites	Meets or exceeds spec
7.9.1.4	Gloss retention	10 years, 50% minimum	Meets or exceeds spec
7.9.1.5	Weathering, erosion resistance	10 years, 45° S. South Florida, maximum 20% loss	Meets or exceeds spec

For more information, please contact:

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AkzoNobel is a leading global paints and coatings company and a major producer of specialty chemicals. We supply industries and consumers worldwide with innovative products and are passionate about developing sustainable answers for our customers. Our portfolio includes well-known brands such as Dulux, Sikkens, International and Eka. Headquartered in Amsterdam, the Netherlands, we are consistently ranked as one of the leaders in the area of sustainability. With operations in more than 80 countries, our 50,000 people around the world are committed to delivering leading products and technologies to meet the growing demands of our fast-changing world.

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Revision Date: June 2014