

Product specifications of

# TRINAR®

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



**AkzoNobel**

Tomorrow's Answers Today

**All TRINAR® 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®'s remarkable resistance to exterior weathering such as fading, color change, chalking and cracking.

One of the secrets of TRINAR®'s superior durability lies in the molecular structure of its 70% polyvinylidene fluoride (PVDF) 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® 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® has become a very popular coating for factory application on aluminum as well as galvanized metal roofing and zinc/aluminum coated steel substrates. TRINAR® 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.

#### **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<sup>®</sup> product specifications

---

<b>Product Type</b>	70% polyvinylidene fluoride (PVDF) coating.
<b>Specification</b>	Meets or exceeds all AAMA 2605 specifications.
<b>Primer</b>	KY1C17839A
<b>Percent Solids (Package)</b>	Weight solids 39-43%, Volume solids 25-27%.
<b>Percent Solids (Reduced)</b>	Weight solids 31-34%, Volume solids 20-22%.
<b>Reduction</b>	Primer: 1-1 with Xylene. Topcoat: 15-25% by volume of Xylene/Butyl Carbitol blend then add Butyl Carbitol as needed for flow.
<b>Viscosity</b>	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).
<b>Film Thickness</b>	Primer: 1.0-2.0 wet mils, 0.2-0.4 mils dry. Topcoat: 4.0-6.0 wet mils, 1.0-1.2 mils dry. Total system: 1.2-1.6 mils dry.
<b>Gloss Range</b>	25 to 35% @ 60° angle.
<b>Cure Schedule</b>	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.
<b>Cure</b>	H+ pencil hardness and 50 MEK double rubs.

---

# AAMA 2605 specification

Test	Description	Coating Requirements	TRINAR® Performance
7.1	<b>Color Uniformity</b>	Visual Control	Instrument and visually controlled
7.2	<b>Specular gloss at 60°, ASTM D 523</b>	Medium and low gloss ranges	Controlled to custom spec ±5 units
7.3	<b>Dry film hardness, ASTM D 3363</b>	F minimum	H+
7.4	<b>Film adhesion (dry, wet and boiling water), crosshatch 1/16 inch squares</b>	No removal between scribed times	No removal
7.5	<b>Impact resistance (direct) 0.10 inch distortion</b>	No removal of film	No removal
7.7.1	<b>Chemical resistance (10% muriatric acid)</b>	15 minutes, no visual changes	Meets or exceeds spec
7.7.2	<b>Chemical resistance (mortar, alkali)</b>	24 hours, no visual changes	Meets or exceeds spec
7.7.3	<b>Resistance to acid pollutants (70% nitric acid)</b>	30 minutes, maximum 5ΔE NBS units color change	Meets or exceeds spec
7.7.4	<b>Detergent resistance</b>	72 hours, no effect	Meets or exceeds spec
7.8.1	<b>Humidity resistance, ASTM B 2247</b>	4,000 hours, few #8 blisters (maximum)	Meets or exceeds spec
7.8.2	<b>Salt spray resistance, ASTM B 117</b>	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	<b>Weathering, color retention, ASTM D 2244</b>	10 years, 45° S. South Florida, max 5ΔE NBS units color change	Meets or exceeds spec
7.9.1.3	<b>Weathering, chalk resistance, ASTM D 4214</b>	10 years, 45° S. South Florida, max 8 rating for colors, 6 rating for whites	Meets or exceeds spec
7.9.1.4	<b>Gloss retention</b>	10 years, 50% minimum	Meets or exceeds spec
7.9.1.5	<b>Weathering, erosion resistance</b>	10 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**



[www.akzonobel.com/ccna](http://www.akzonobel.com/ccna)

AkzoNobel is the largest 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. Headquartered in Amsterdam, the Netherlands, we are a Global Fortune 500 company and are consistently ranked as one of the leaders on the Dow Jones Sustainability Indexes. With operations in more than 80 countries, our 55,000 people around the world are committed to excellence and delivering Tomorrow's Answers Today™.

© 2011 AkzoNobel NV. All rights reserved.  
"Tomorrow's Answers Today" is a trademark of AkzoNobel NV.

TRINAR® is a registered trademark of an AkzoNobel company.  
Revision Date: February 2011