Product specifications of

TRINAR®
TEC and TMC

3-coat exotic and metallic color liquid spray exterior metal finishes for architectural extrusion applications

AkzoNobel
Tomorrow's Answers Today

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

TRINAR® TEC colors are applied in a 3-coat process, and are available in a broad spectrum of vibrant, bright, and very clean colors. They lend themselves beautifully to applications requiring a striking accent or bold statement in design.

TRINAR® TMC metallic colors offer either a bright or subdued metal color which is very popular throughout the architectural community. Like TRINAR® TEC colors, TRINAR® TMC metallics are applied in a 3-coat process and have the unparalleled durability that only a 70% PVDF coating can provide.

When specifying TRINAR® TEC or TMC colors, it is helpful to include the appropriate suffix (TEC or TMC). This helps to distinguish the color as a 3-coat process, and minimizes any possibility for confusion during the specification process. The TEC stands for TRINAR® Exotic Clear, and the TMC stands for TRINAR® Metallic Clear.

Whether your color design requirements call for a bold statement or a soft and subtle appearance, AkzoNobel's wide array of TRINAR® TEC and TMC colors will provide the desired effects. Should you wish to match a color provided by another manufacturer, our computer-aided technicians will be happy to provide you with a corresponding match. Or, if you want something not found on a color card, we will assist you in the creation of a brand new color.

TRINAR® TEC and TMC have become very popular coatings for factory application on aluminum as well as galvanized metal roofing and zinc/aluminum coated steel substrates. TRINAR® TEC and TMC 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.

TRINAR® TEC and TMC product specifications

Product Type	70% polyvinylidene fluoride (PVDF) coating.
Specification	Meets or exceeds all AAMA 2605 specifications.
Primer	KY1C17839A, KA1C22454(P1) or KN1C22296(P2)
Percent Solids (Package)	Weight solids 37-43%, Volume solids 25-27%.
Percent Solids (Reduced)	Weight solids 29-34%, Volume solids 20-22%.
Reduction	Primer: 1-1 with Xylene. Color coat and Clear coat: 20-30% 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 @ 77° F (reduced). Topcoat: 20-23 seconds #4 Zahn @ 77° F (package), 22-25 seconds on Zahn #2 @ 77° F (reduced). Clear coat: 20-23 seconds #4 Zahn @ 77° F (package), 18-22 seconds on Zahn #2 @ 77° F (reduced).
Film Thickness	Primer: 1.0-2.0 wet mils, 0.2-0.4 mils dry. Color coat: 4.0-6.0 mils wet, 1.0-1.2 mils dry. Clear coat: 2.0-3.0 mils wet, 0.4-0.6 mils dry. Total system: 1.6-2.2 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.
Note	To help facilitate color uniformity, a special primer (P1 or P2) may be required. Please see Product Data Sheet.

AAMA 2605 specification

Test	Description	Coating Requirements	TRINAR® TEC and TMC Performance
7.1	**Color Uniformity**	Visual Control	Instrument and visually controlled
7.2	**Specular gloss at 60º, 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% muriatic 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, 45º 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, 45º 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, 45º S. South Florida, maximum 20% loss	Meets or exceeds spec

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