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## ***TRINAR*®** **Coil Coatings – Standard Colors**

TRINAR® is a high-performance fluoropolymer coating containing 70% polyvinylidene (PVDF) resin. This unique resin is combined with other proprietary resins and the highest quality ceramic and select inorganic pigments for the finest metal finish available.

This unique chemistry is combined with our own proprietary acrylic resin and ceramic/inorganic pigmentation and provides TRINAR®'s proven ability to resist ultraviolet radiation in sunlight for maximum protection against general weathering effects, chalking and fading.

TRINAR® finishing of metal building construction materials is your key to enduring elegance. TRINAR® coating systems can be factory-applied to galvanized steel, zinc-aluminum coated steel and aluminum substrates. These oven-baked finishes are tough, flexible and strongly-bonded to the metal substrate. This exceptional formability allows architectural expression in virtually any shape and in a wide range of contemporary and classic colors.

TRINAR® coatings provide long-term beauty and protection for a wide range of metal construction elements including standing seam roofing, wall and siding panels, window frames, curtain-wall systems, entrance-ways, canopies, louvers, column covers and spandrels.

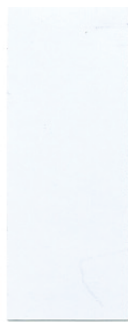
This extraordinary resin chemistry is one key to the unsurpassed thermal, chemical and ultraviolet resistance of TRINAR® finishes. Unique resin chemistry combined with the finest weathering ceramic/inorganic pigments are responsible for TRINAR's outstanding resistance to color change, environment aging and dirt retention.

Continually monitored research and production quality assurance programs have produced years of actual 45° South Florida exposure data that demonstrates TRINAR®'s remarkable resistance to exterior weathering, fading, color change, cracking and chalking.

TRINAR® finished metal meets or exceeds ASTM Performance Test Standards and American Architectural Manufacturers Association specification AAMA 2605-98\*.

\*Aluminum Substrates Only

The Quality Management System of Akzo Nobel Coatings Inc. is in compliance with the standard and is registered to ISO 9001.



**KW3R 17374**  
BONE WHITE



**KN3R 17368**  
SEAL BROWN



**KR3R 83709**  
BURGUNDY



**KG3R 83711**  
TEAL PATINA



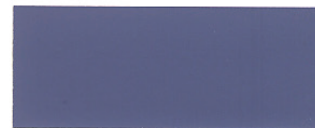
**KH3R 17371**  
SANDSTONE



**KW3R 83714** WHITE STONE



**KA3R 17372** SLATE GRAY



**KL3R 83712** HERITAGE BLUE



**KR3R 17375** BRICK RED



**KG3R 83710** EVERGREEN



**KR3R 17364** COLONIAL RED



**KL3R 17373** ROYALE BLUE



**KN3R 17367** STRATFORD BROWN



**KL3R 28538** TAHOE BLUE



**KS3R 28539** WEATHERED COPPER

## TRINAR® Coil Coatings - Standard Colors

**TRINAR®** finishes are made with unique polyvinylidene fluoride resin, which contains a minimum 70% KYNAR 500® or Hylar 5000® PVDF. This unique chemistry is combined with our own proprietary acrylic resin and ceramic/inorganic pigmentation and provides **TRINAR®**'s proven ability to resist ultraviolet radiation in sunlight for maximum protection against general weathering effects, chalking and fading.

**TRINAR®** finishing of metal building construction materials is your key to enduring elegance. **TRINAR®** coating systems can be factory-applied to galvanized steel, zinc-aluminum coated steel and aluminum substrates. These oven-baked finishes are tough, flexible and strongly-bonded to the metal substrate. This exceptional formability allows architectural expression in virtually any shape and in a wide range of contemporary and classic colors.

**TRINAR®** coatings provide long-term beauty and protection for a wide range of metal construction elements including standing seam roofing, wall and siding panels, window frames, curtain-wall systems, entrance-ways, canopies, louvers, column covers and spandrels.

This extraordinary carbon/fluorine bond in KYNAR 500® or Hylar 5000® resin chemistry is one key to the unsurpassed thermal, chemical and ultraviolet resistance of **TRINAR®** finishes. Unique resin chemistry combined with the finest weathering ceramic/inorganic pigments are responsible for **TRINAR®**'s outstanding resistance to color change, environment aging and dirt retention.

Continually monitored Akzo Nobel research and production quality assurance programs have produced years of actual 45° South Florida exposure data that demonstrates **TRINAR®**'s remarkable resistance to exterior weathering, fading, color change, cracking and chalking.

**TRINAR®** finished metal meets or exceeds ASTM Performance Test Standards and American Architectural Manufacturers Association specification AAMA 2605-98\*.

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**KG3R 17358**  
PATINA GREEN



**KH3R 17370**  
SURREY BEIGE



**KA3R 83713**  
TAUPESTONE



**KS3R 17360**  
DARK BRONZE



**KL3R 17365**  
SLATE BLUE



## PERFORMANCE SPECIFICATION FOR TRINAR® FINISHES

**General**      **Substrate:** HDG-90, Galvalume, Galfan, and Aluminum. **Application:** Roll-coating of two-coat system. **System:** Akzo Nobel's recommended Proprietary Primers and **TRINAR®** topcoat, over properly cleaned and pre-treated substrate. **TRINAR®** meets or exceeds all requirements AAMA 2605-98.

**Surface Appearance** Smooth and free of streaks, blistering and other imperfections.

**Film Thickness**      **Topside finish:** Primer (dry)=0.20-0.30 mil; Top-coat (dry)=0.70-0.90 mil. **Reverse side finish:** Primer (dry)=0.15-0.25 mil; Pigmented Polyester Backer (dry)=0.30-0.40 mil. Total DFT for system = 0.90-1.10 mils. All measurements per ASTM D 1005, 4138, or 5796.

**Topside Color**      Controlled to the Master Standard by an approved Color Difference Meter or Spectrophotometer, and by visual match under daylight and horizon of light of a Macbeth Daylight Both per ASTM D 1729.

**Specular Gloss**      Determined per ASTM D 523 at a gloss meter angle of 60°. **TRINAR®** standard gloss range is 25%-40% but can be made available in lower gloss ranges upon request.

**Hardness**      Minimum pencil hardness, using Eagle Turquoise Pencils per ASTM D 3363 is "HB".

**Cure Test**      Cured in baking oven to withstand 100 double rubs of an MEK-soaked cloth, to expose primer, per ASTM D 5402.

**Cross-Hatch Adhesion**      No paint removal with Scotch #610 cellophane tape after cross-scoring with eleven horizontal and eleven vertical lines 1/8" apart, per ASTM D 3359.

**Direct and Reverse Impact Adhesion**      No visible paint removal with Scotch #610 cellophane tape after direct and reverse impact of 80 inch-pounds, using 5/8" steel ball on a Garden Impact Tester. (Not to include Zinc coating failures.) Per ASTM D 2794.

**Bend Adhesion**      Per ASTM D 4145 (1990) no loss of adhesion when taped with Scotch #610 cellophane tape after being subjected to a 1 T diameter 180° bend test on 0.017" G-90 (grade D) galvanized steel or fabricator's roll-forming operation. (Not to include Zinc fixtures.) A forming operation using a "Butler Jig" may be substituted for this test to more closely simulate the roll-forming operation. Per ASTM D 522, an 1/8" mandrel bend may also be used to evaluate flexibility, with the same results in flexibility and adhesion.

**Humidity Resistance** No blistering, cracking, peeling, loss of gloss or softening of the finish after 2000 hours of exposure to 100% humidity at 100°F ±5F, per ASTM D 2247.

**Salt Spray Resistance**      Samples diagonally scored and subjected to 5% neutral salt spray per ASTM

B 117, then taped with Scotch #610 cellophane tape: 1000 hours – no blistering, and no loss of greater than 1/8” from score line. (Sample taped 1 hour after removal from test cabinet.)

**Water Immersion Resistance** Samples immersed in distilled water at 100° per ASTM D 870: 1000 hours – no loss of gloss, color change, cracking and no blistering greater than medium #6 over 20% of test area, per ASTM D 714 (1994). Slight softening of the finish when first removed from immersion; original hardness regained after 24 hours at room temperature.

**Cleveland Condensing Cabinet** No blistering or white rust after 240 hours at 140°F, with a 15-minute dry-off period every 6 hours, per ASTM D 4585.

**Chemical Resistance** No effect after 24 hours exposure to 10% solutions of hydrochloric acids, and 18-hour exposure to 20% sulfuric acid, per ASTM D 1308, Procedure 6.2 (spot test.) Meets all requirements of AAMA 2605-98, including exposure to 10% muriatic acid and nitric acid fumes.

**Kesternich Test** No significant color change after 10 cycles in an SO<sub>2</sub> chamber (Kesternich Cabinet or equivalent), per G87.

**Weatherometer Test** No checking, blistering or adhesion loss of coating system after 3000 hours of accelerated weathering, ASTM D822, G151, and G152.

**Chalking Resistance** No chalking greater than #8 rating per ASTM D 4214, Method A, after a 3000-hour weatherometer test.

**Color Change** Finish coat color change not to exceed 2 NBS units per ASTM D 2244 test procedure, after 3000 hour weatherometer test.

**Exterior Weathering** Florida exposure (45°South) and EMMAQUA testing, per ASTM D 4141, Procedure C, both confirm superior exposure characteristics of **TRINAR®** systems.

**Flame Spreading Rating** **TRINAR®** displays a flame spread classification of A (Class 1), when tested in accordance with ASTM E 84.

**Abrasion Resistance** Per ASTM D 968, Method A **TRINAR®** will pass 60 liters/mil, minimum, of falling sand.

**Chip Resistance** Rating of at least 5B, per ASTM D 3170.

**Filiform Corrosion Resistance** **TRINAR®** will not sustain filiform corrosion, per ASTM D 2803.

TRINAR® is a registered trademark of Akzo Nobel Coatings Inc.