

The qualities of TRINAR® Mirage

AkzoNobel



An inspiring radiant finish in a high-performance PVDF coil coating system

Product information and performance specifications for TRINAR Mirage high-performance fluoropolymer finishes

Product Information

TRINAR Mirage is a multi-coat high-performance fluoropolymer coating containing a minimum of 70% polyvinylidene fluoride (PVDF) resin. This unique resin is combined with other proprietary resins and with the highest quality ceramic and select inorganic pigments for the finest metal finish available. The system is designed to provide inspiring visual effects by combining paint film depth with unique ceramic and inorganic pigmentations in both the basecoat and the finish coat.

This three-coat system provides inspiring visual color changes combined with radiant sparkle effects depending upon the specular viewing angle and the

angle of the sun's natural UV rays. TRINAR Mirage is a tough but flexible finish, and is perfectly suited for architectural, institutional, industrial, and commercial wall applications. TRINAR Mirage meets or exceeds all requirements of AAMA 2605.

Test samples of TRINAR Mirage have been exposed at weathering facilities in South Florida and around the world, proving the excellent properties of this system. We are continuously evaluating these test panels to ensure that only the highest quality pigments are used. The result is a coating system formulated for and tested under real world conditions.

AkzoNobel stands behind the performance of TRINAR Mirage and backs it up with years of research and experience. TRINAR Mirage coatings are designed to provide protection for all types of buildings in locations around the globe. They have proven that they are more than capable of withstanding the harsh ultraviolet rays of the sun and the degrading effects of weather extremes.

Field Performance

TRINAR Mirage is one component of a total paint system. When applied in accordance to specifications, the following field performance can be expected.

Walls / Vertical Building Components / Exterior / Interior

Film Integrity	35 years
Chalk	No more than #8 for 35 years
Fade	No more than 5 Delta E (Hunter units) for 35 years

General System Information

TRINAR Mirage is approved for use on the following substrates: Hot-Dipped Galvanized (HDG), Galvalume® and Aluminum. TRINAR Mirage is a factory-applied finish that is applied through roll coating to properly cleaned and pretreated first-quality substrates, and then oven-baked to cure. It is a three-coat system, composed of a 70% PVDF clear-coat applied over our 70% PVDF basecoat which is applied over our High-Performance Primer.

Application

Film Thickness	Topside finish / 3-coat system: Primer (dry) = 0.20 – 0.30 mils; Basecoat (dry) = 0.70 – 0.80 mils; Clear-coat (dry) = 0.4 – 0.6 mils. Reverse side finish: Primer (dry) = 0.15 – 0.25 mils; Pigmented backer (dry) = 0.30 – 0.40 mils. Total DFT for system = 1.30 – 1.60 mils. All measurements per ASTM D 5796.
Topside Color	Controlled to the Master Standard by an approved Color Difference Meter or Spectrophotometer, and / or by visual match under daylight and horizon light of a Macbeth Daylight Booth per ASTM D 1729.

Physical Properties

Specular Gloss	25 - 35. Determined per ASTM D 523 at a gloss meter angle of 60°.
Pencil Hardness	Minimum pencil hardness, per ASTM D 3363, is "HB".
Solvent Resistance	Passes minimum of 100 double rubs of a MEK soaked cloth, 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 mm apart, per ASTM D 3359.
Impact Resistance	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 Gardner Impact Tester, per ASTM D 2794.
T-Bend Adhesion	Per ASTM D 4145, no loss of adhesion when taped with Scotch #610 cellophane tape when subjected to a 2T-Bend.

Testing Data

Humidity Resistance	No blistering, cracking, peeling, loss of gloss or softening of the finish after 1000 hours of exposure to 100% humidity at 100°F ± 5°F, per ASTM D 2247.
Cleveland Condensing	No blistering, rusting or loss of adhesion of the finish after 1000 hours of exposure at 120°F, per ASTM D 4585.
Water Immersion Resistance	Samples immersed in distilled water at 100°F per ASTM D 870 will exhibit no loss of gloss, blistering, cracking or color change after 500 hours.
Salt Spray Resistance	Samples diagonally scored and subjected to 5% neutral salt spray for 1000 hours (HDG, Galvalume) or 2000 hours (Aluminum), per ASTM B 117, then taped 1 hour after removal from the test cabinet with Scotch #610 cellophane tape, exhibit no blistering, no loss of adhesion and scribe creep no greater than 1/8".
Chemical Resistance	No significant color change after 24 hours exposure to 10% solutions of hydrochloric and sulfuric acids, per ASTM D 1308, Procedure 7.2 (spot test).
Kesternich Test	No significant color change after 10 cycles in a SO ₂ chamber, per ASTM G 87.
Accelerated Weathering	5 Hunter E maximum color change, and at least #8 chalk rating after 10,000 hours exposure, per ASTM G 151 and G 154 using UVA-340 bulbs.
Exterior Weathering	Florida exposure (45° South), 5 E (Hunter units) maximum color change, per ASTM D 2244, and at least #8 chalk rating, per ASTM D 4214, Method A, after 20 years real-time exposure.
Abrasion Resistance	Per ASTM D 968, Method A, TRINAR Mirage passes 65 +/- 5 liters minimum of falling sand.
Flame Spread Rating	TRINAR Mirage displays a flame spread classification of A (Class 1) when tested in accordance with ASTM E 84.



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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 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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