The qualities of TRINAR® CC

An energy-saving high-performance PVDF coil coating system

AkzoNobel
Tomorrow's Answers Today

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

Product Information

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

TRINAR CC contains ceramic infrared reflective pigments, which are designed to reflect infrared energy while still absorbing visible light energy, thus appearing as the same color yet staying much cooler. When TRINAR CC coatings are used on metal roofing, the result is a sustainable building material that can lower air conditioning costs, reduce peak energy demand, and help to mitigate urban heat island effects.

TRINAR CC offers the unparalleled durability of TRINAR in formulations which reduce energy consumption in buildings, making it a very sustainable solution for any project. These coatings comply with Energy Star guidelines and can contribute to points in LEED.

This two-coat system, which utilizes our High-Performance Primer, provides unparalleled protection against harsh environmental weathering for decades. It has a tough but flexible finish, and is perfectly suited for high-end residential, institutional and commercial applications. TRINAR CC meets or exceeds all requirements of AAMA 620/621 and AAMA 2605.

Test samples of TRINAR CC have been exposed for decades at weathering facilities in South Florida and around the world, with results that prove the superiority of this system. We are constantly evaluating these test panels to ensure that only the highest quality pigmentation is used. The result is a coating system formulated for and tested under real world conditions. Using TRINAR coatings will ensure your project will continue to look good for many years after installation.

AkzoNobel stands behind the performance of TRINAR CC and backs it up with years of research and experience. TRINAR CC coatings are providing protection on 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 CC is one component of a total paint system.When applied in accordance to specifications the following field performance can be expected.

Film Integrity	35 years
Chalk	No more than #8 for 35 years
Fade	No more than 5 ΔE Hunter units for 35 years

General System Information

TRINAR CC is approved for use on the following substrates: Hot-Dipped Galvanized (HDG), Galvalume® and Aluminum.

TRINAR CC is a factory-applied finish that is applied through roll coating to properly cleaned and pretreated first-quality substrates, and then ovenbaked to cure. It is a two-coat system, composed of a topcoat over our High-Performance Primer.

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TRINAR® Coatings.
The color you spec is the color that stays.

Application Characteristics

Film Thickness	Topside finish: Primer (dry) = 0.20 – 0.30 mils; Topcoat (dry) = 0.70 – 0.80 mils; Reverse side finish: Primer (dry) = 0.15 – 0.25 mils; Pigmented backer (dry) = 0.30 – 0.40 mils. Total DFT for system = 0.90 – 1.10 mils. All measurements per ASTM D 5796.
Topside Color	Controlled to the Master Standard by an approved Color Difference Meter or Spectrophotometer, and 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 glossmeter 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 2000 hours (HDG, Galvalume) or 3000 hours (Aluminum) 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 1500 hours (HDG, Galvalume) or 3000 hours (Aluminum) 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 3000 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 ΔE 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 Hunter ΔE 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 passes 65 +/- 5 liters minimum of falling sand.
Flame Spread Rating	TRINAR displays a flame spread classification of A (Class 1) when tested in accordance with ASTM E 84.

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AkzoNobel is the largest global paint 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 55,000 people around the world are committed to excellence and delivering Tomorrow's Answers Today™.

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