

The qualities of

ALUM-A-DURE®

One-coat paint system for aluminum to meet a variety of end-uses

AkzoNobel



Product information and specifications for ALUM-A-DURE high-performance finishes for aluminum substrates

Product Information

ALUM-A-DURE technology is a coil coating system designed specifically for aluminum substrates. Specially formulated to be one-coat systems (or painted over a primer layer for extra corrosion performance) this product offers a balance between performance and economics.

ALUM-A-DURE offers a coating film displaying excellent smoothness, depth of image and easy-clean surface. This exceptional coating also combines a balance between good hardness and flexibility while maintaining resistance to dirt and staining. ALUM-A-DURE coatings can be used over aluminum substrates for applications such as truck trailer, lighting fixture, screen frame and more.

ALUM-A-DURE coatings are supplied in various formulations to meet a variety of needs:

- ALUM-A-DURE P (Polyester) – engineered from AkzoNobel's proprietary polyester resin, this system provides robustness and economics.
- ALUM-A-DURE SF (Screen Frame) – modified polyester system providing additional flexibility and formability.
- ALUM-A-DURE A (Acrylic) – acrylic backbone providing exceptional film toughness.

General System Information

ALUM-A-DURE is approved for use as a one-coat system over Aluminum substrate. ALUM-A-DURE is a factory-applied finish that is applied through roll coating to properly cleaned and pre-treated first-quality substrate, and then oven-baked to cure.



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Application Characteristics

General	Substrate: Aluminum. Application: Roll coating of one-coat or two-coat system. System: When required, use Akzo Nobel recommended Proprietary Solvent and ALUM-A-DURE® topcoat, over properly cleaned and pre-treated aluminum substrate.
Surface Appearance	Smooth and free of streaks, blistering and other imperfections.
Film Thickness	Topside finish: Primer (dry) = as required; Topcoat (dry) = 0.70 - 0.80 mil. Reverse side finish: Primer (dry) = as required; Clear polyester backer (dry) = 0.20 - 0.30 mil. All measurements per ASTM D 1005 or 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	Determined per ASTM D 523 at a gloss meter angle of 60°. Gloss rating per customer nominal specification, ±5% specular reflectance. ALUM-A-DURE® systems are 35% ±5%, but can be made available in both higher and lower gloss ranges upon special request.
Hardness	Minimum pencil hardness, using Eagle Turquoise Pencils per ASTM D 3363, is "F".
Cure Test	Cured in baking oven to withstand 100 double rubs of a MEK soaked cloth, per ASTM D 5402, to expose substrate or primer.
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 1.5 X metal thickness, using 5/8" steel ball on a Gardner Impact Tester per ASTM D 2794.
Bend Adhesion	Per ASTM D 4145-83, no loss of adhesion when taped with Scotch #610 cellophane tape when subjected to a 0T diameter 180° bend test on 0.017" Aluminum substrate,

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 Federal Test Method Standard 141, Method 6201 or ASTM D 2247.
Cleveland Condensing Cabinet Water Immersion Resistance	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.
Water Immersion Resistance	Samples immersed in distilled water at 100°F per ASTM D 870 will exhibit no loss of gloss, blistering, cracking, color changing or softening of finish after 500 hours. After 1000 hours, samples will exhibit no loss of gloss, color change, cracking, and no blistering greater than medium #6 over 20% of test area per ASTM D 714. Slight softening of the finish may be observed when first removed from immersion; original hardness will be regained after 24 hours at room temperature.
Salt Spray Resistance	Samples diagonally scored and subjected to 5% neutral salt spray for 1000 hours, per ASTM B 117, then taped 1 hour after removal from the test cabinet with Scotch #610 cellophane tape, exhibit no blistering and no loss of adhesion greater than 1/8" from score line.
Chemical Resistance	No significant color change after 24 hours exposure to 10% solutions of hydrochloric and sulfuric acids, per ASTM D 1308-87, Procedure 6.2 (spot test).



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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 sustainability. With operations in more than 80 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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