



INSTALLATION GUIDE SPECIFICATION

FLUID-APPLIED WATERPROOFING (OVER EXISTING METAL ROOF DECK)

FM 4470

PART 1 — GENERAL

1.01 DESCRIPTION

A. Scope

Installation of a premium acrylic roof coating system to waterproof and restore existing metal roof system.

B. Related work

The scope of work includes but is not limited to the following:

1. Pressure washing of the substrate.
2. Primer coat application.
3. Attention to flashings and penetrations
4. Base and top coat application over entire roof field.

1.02 SUBMITTALS

A. Product data

1. Submit product technical data and material safety data sheets for all products used in the Roofing System, including but not limited to coatings, primers, flashing material, reinforcing fabric and seam tape.
2. Submit Manufacturer's Certificate that products meet or exceed the specified requirements as outlined below.

B. Shop Drawings

1. Submit drawings indicating all termination and joint conditions and interface with other materials.

C. Samples

1. Submit cured membrane sample.

D. Warranty

1. Provide Manufacturer and Applicator Warranty.
2. Submit Warranty Application form to ALDO Products Company, Inc., for approval prior to starting any work.

ALDOCOAT Metal Roof Restoration Acrylic Coating FM 4470 2014

1.03 QUALITY ASSURANCE

A. Qualifications

1. Roof coating material shall be obtained from ALDO Products Company, Inc.
2. Applicator shall be an ALDOCOAT Approved Applicator.
3. Any deviation from this specification must have prior written approval from ALDO Products Company, Inc.

B. Responsibility for performance

1. Applicator shall comply foremost with these specifications. Secondly, upon all matters where these specifications are silent, applicator shall proceed only with the approved material manufacturer's recommendations and instructions.
2. No lesser quality, weight or degree of application to any extent than at least the minimum of such required by this specification's section is acceptable.

C. Material Requirements

1. System must meet FM 4470; coating system to meet the FM Global Standard 4470 for Class 1 Roof Constructions, including flame spread test.

2. ASTM D6083 requirements as follows:

Property	ASTM Test	Result
Tensile Strength	D 2370	278 psi
Elongation	D 2370	239%
Viscosity	D 562 (KU)	94
Weathering	D 4798	Pass
Solids (Weight)	D 1644	65%
Permeance	D 1653	6.5
Tear Resistance	D 624	70.5
Fungi Resistance	G 21	0
Low Temp Flex	D 522 (B)	Pass

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Delivery

1. All products shall be clearly labeled and delivered to project site in manufacturer's undamaged and unopened containers.

B. Storage and Handling

1. Store all materials at temperatures between 55° and 90° F (12° and 32° C). Keep all containers out of direct sunlight at all times.
2. All acrylic coating and seam seal products must be protected from freezing temperatures during shipment and storage. Subjecting products to freezing conditions may result in the material being damaged and unfit for use.

1.05 PROJECT SITE CONDITIONS

A. Coating Application

1. Acrylic coating should not be applied when ambient air and substrate temperatures are below 45° or if there is a possibility of temperatures falling below 32° within a 24 hour period after application.

B. High Humidity

1. High humidity may retard cure time. Application should be suspended if climatic conditions prevent complete cure before rain, dew or freezing temperatures.

C. Extreme Heat

1. When ambient air temperatures exceed 100°, or substrate temperatures exceed 120°, do not continue with application. Coatings should be applied during cooler time frames, such as morning hours.
2. The substrate may also be cooled with water. Application should only be resumed after water has flashed off and substrate is completely dry.
3. Darker coating colors may blister under extreme substrate heat conditions.

1.06 WARRANTY

A. Term

1. Provide a ten year manufacturer's warranty.

B. Limitation

1. Application over wet substrate is excluded from warranty. Ponding water areas are also excluded unless otherwise stated in warranty document.

PART 2 — PRODUCTS

2.01 MANUFACTURER

A. ALDO Products Company, Inc.

1604 N. Main Street

Kannapolis, NC 28081

(800) 474-6019

www.aldoproducts.com

2.02 COATING MATERIALS

ALDOCOAT Metal Roof Restoration Acrylic Coating FM 4470 2014

A. Primers

1. ALDOPRIME 710 Rust Inhibitor
2. ALDOBOND 767 Bonding Agent

B. Base & Top Coat Product

1. ALDOCOAT 374 Acrylic Contractor Grade (basecoat)
2. ALDOCOAT 400 Premium Acrylic (topcoat)

2.03 ACCESSORY ITEMS & EQUIPMENT

A. Accessory Items

1. ALDOSEAL 750 Acrylic Sealant
2. ALDOSEAL 1602 Seam Tape
3. ALDOFABRIC 272 Polyester

B. Airless Spray Equipment

1. Minimum Output of one (1) gallon per minute and two thousand psi capacity.
2. Gun: any airless hand held gun compatible with pump used.
3. Tip size: A reversible self-cleaning tip with orifice size of .027" to .039" and a fan angle of 40° to 50°.
4. Fluid hose: Nylon high pressure hose with listed inside diameter up 3/8" for initial seventy-five (75) feet; for all hose length over 75 feet and up to 300 feet use a minimum of 1/2" inside diameter added to the 3/8" to maintain pressure delivery.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that all surfaces and site conditions are ready to receive work.

3.02 SURFACE/SUBSTRATE PREPERATION

- A. It is the sole responsibility of the contractor to prepare the roof surface before application of the system begins. The following steps should be strictly adhered to for insuring maximum life of the system:
 1. Pressure washing: Pressure wash substrate to remove all dirt, dust, and remains of previous paint and/or coatings. Pressure washer to have a minimum working pressure of 3,000 psi. Extra cleaning may be necessary over areas with residual asphalt or oxidation. Care should be taken not to damage existing roof or exasperate leak situations during pressure washing activities.
 2. Repair of dented or damaged panels: Repair dented and/or damaged panels in such a manner to remove any possible ponding water areas. Any broken ribs to be covered with sheet metal caps and mechanically fastened. Roof panels with severe damage due to serious oxidation or other causes are to be replaced with new panels.

3. Treatment of rust / oxidation: Remove all loose, flaking or powdery rust by wire brushing if not successfully removed during pressure washing. All such areas are to be primed prior to base coat.
4. Fasteners: All fasteners are to be inspected and re-tightened. All stripped or backed out fasteners are to be replaced with oversize fasteners. Any missing fasteners are to be replaced.
5. Bonding agent application: Apply ALDOBOND 767 Bonding Agent at a rate of 1 gallon per square to the entire field of the roof. Allow 1 – 2 hours cure time before applying base coat.
6. Adhesion test areas: If there is any question as to the adhesion of coating product over suspect areas, such as those that may contain oil residue or those that have been previously coated with a silicone product, a test patch area is required for an adhesion test.

3.03 SYSTEM APPLICATION

A. Flashing Details:

After completion of substrate preparation, all flashing details, seams, penetrations and curbs must be flashed and/or sealed with approved mastic roof coating/seam sealer product.

1. Fasteners: All fasteners must be totally encapsulated by brushing over with ALDOSEAL 750 Sealant.
2. Seams: All seams, vertical and horizontal are to be sealed as follows:
 - a. All seams are to be reinforced by coating with ALDOBOND 767 Bonding Agent, embedding ALDOFABRIC 272 Polyester (12") followed by second application of ALDONBOND 767 Bonding Agent prior to base and top coat application.
3. Ridge: To be sealed with approved mastic roof coating.
4. Gutter straps and roof curbs: All gutter straps shall be sealed with bonding agent and fabric as described in #2 above.
5. Skylights: Seal all perimeters of skylights with bonding agent and fabric as described in #2 above.
6. Inspection: All preliminary work to be inspected carefully by applicator to insure that all work meets project planned specifications.

B. Primer Application

1. Apply ALDOCOAT 710 Rust Inhibitor all areas of oxidation at a rate of one gallon per 100 square feet. Allow product to set up (1 – 2 hours) before continuing to bonding agent application.
2. Apply ALDOBOND 767 Bonding Agent at a rate of one gallon per 100 square feet.

C. Coating Application:

1. Base Coat: Apply approved ALDOCOAT 374 Acrylic Contractor Grade at a rate of 1.5 to 2 gallons per 100 square feet in accordance with the requirements of the warranty

requested. Allow 12-24 hours drying time. Inspect surface for holidays, flaws or defects and correct all such conditions prior to proceeding to topcoat application.

2. Top Coat: Apply ALDOCOAT 400 Premium Acrylic at a rate of 1.5 to 2 gallons per 100 square feet in accordance with the requirements of the warranty requested. Allow 24 hours for drying time and inspect for holidays, flaws or defects and correct such conditions before notification of job completion.
3. Total systems thickness to be a minimum of 30 mils DFT.

C. Final Inspection

1. Allow a minimum of 48 hours for inspection by an authorized representative of manufacturer.
2. All warranty documentation, including a minimum of 6 photos of before, during and after application are to be submitted to representative at this time.

3.05 PROTECTION

A. Building

1. All building surfaces are to be covered and protected against overspray or any other damage.

B. Surrounding Area.

1. All adjacent parking areas to project site are to be roped off a minimum of 75 feet from spray area. All vehicles are to be parked beyond this area.
3. Special care is to be taken not to spray during windy conditions. The applicator is solely responsible to monitor such weather conditions to insure no damage from overspray.

C. Foot Traffic

1. All areas on coated surface subject to foot traffic are to be covered. Roof coatings are not traffic resistant products.

3.06 SITE CLEAN UP

A. Responsibility

1. Complete site cleanup is the sole responsibility of the contractor.

B. Removal

1. All pails, containers, equipment, protective coverings and all other items brought on site by the contractor must be removed from the site and disposed of properly and in accordance with all federal, state and local regulations.
2. All work areas must be left in an undamaged condition and acceptable to building owner or facility manager.