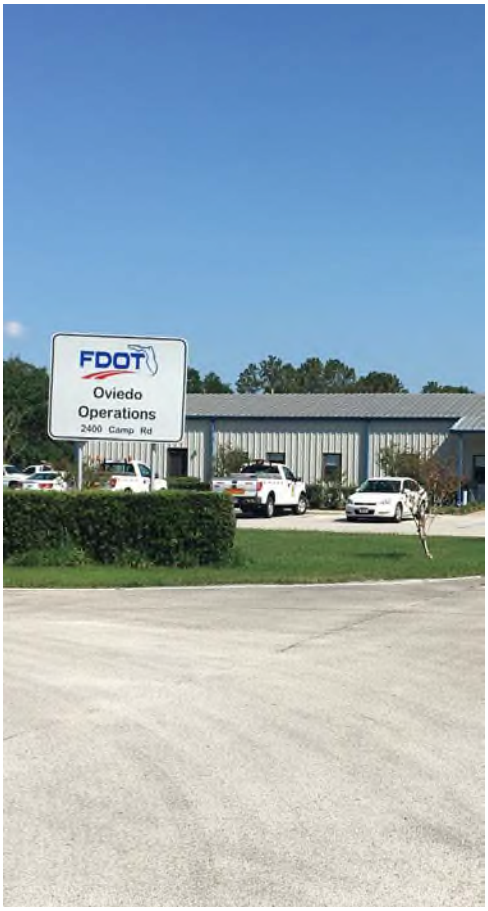
Exterior Repaint Specification for
FDOT Oviedo Operations
2400 Camp Road
Oviedo, Florida
(Kymax Option)



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Date: 04-13-18

Specified substrates will be identified for the following buildings:

5191 Front Offices
5249 Material Bins
5341 Longwood EB rest area
5342 WB Rest Area
5382 Herbicide
5446 Conference & Warehouse
5463 Dept of Corrections Barn
5475 Fuel Island Canopy
5937 EB Tower
5938 EB Tower Building
5941 Car Wash
5945 EB Utility Storage
5946 WB Utility Storage
5968 Shop
5969 Construction TBD
5970 Field Crew TBD
5971 Car Wash Shed
5972 Dept of Corrections Shed
5973 Car Wash Shed

Excluded

5024 Barn

Table of Contents

Project Scope

Recommended Coatings Systems

Project Scope

Contractor shall strictly adhere to all applicable federal, state and local regulations associated with proper lead-safe work renovation, repair and painting practices and procedures. State and local regulations may be more strict than those set under the federal regulations. The federal practices and procedures are detailed in EPA's Lead Renovation, Repair and Painting Program Regulations Rule (RRP) 40 CFR Part 745, Subpart E, and as amended. Specifics associated with the RRP Rule pertaining to "Firm Certification", individual "Certified Renovator" Certification, pre-work activities (notification & testing), occupant protection / work site preparation measures, safe work / prohibited work practices, clean-up / clean-up verification / waste disposal / clearance testing (if applicable), recordkeeping and worker training criteria can be obtained on EPA's website: www.epa.gov/lead.

WARNING! Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the National Lead Information Center at 1-800-424-LEAD (in US) or contact your local health authority. Removal must be done in accordance with EPA Renovation, Repair and Painting Rule and all related state and local regulations. Care should be taken to follow all state and local regulations which may be more strict than than those set under the federal RRP Rule.

The work will consist of all preparation, painting, finishing work and related items necessary to complete work described in these specifications and listed in the remaining pages included within this specification.

A. Scope of Work

Work in general includes surface preparation, surface repair, caulking, sealants, patching and application of the paint coating to the substrates and systems outlined in this specification and approved by owner or owner's agent.

B. Materials

1. All materials specified are from The Sherwin-Williams Company.

2. All paints shall be delivered to the job site in the original container with the manufacturer's label intact.

3. The paint shall be used and applied per label and data sheet instructions. The material shall not be thinned or modified in any way unless specified herein. Manufacturer's recommendation for proper surface preparation shall be followed. All data sheets on specified materials are available from your local Sherwin-Williams representative or www.paintdocs.com.

4. All paint and sundries at the job site shall be available for inspection at any time upon commencement of the job by the owner, owner's agent, or a Sherwin-Williams representative.

C. Protection of Substrates Not to be Painted

1. Contractor shall protect his/her work at all times and shall protect all adjacent work and materials by suitable covering or other methods during progress of work. The contractor will protect all adjacent areas not to be painted by taking appropriate measures. Areas to be protected are windows, brick, surrounding lawn, trees, shrubbery, floor and steps. Upon completion of work, he/she shall remove all paint droppings and over-spray from floors, glass, concrete and other surfaces not specified to be painted.

D. Minimum Specifications

1. If instructions contained in this specification, bid documents or painting schedule are at variance with the paint manufacturer's instructions or the applicable standard, and codes listed, surfaces shall be prepared and painted to suit the higher standard, as determined by Sherwin-Williams, the customer or management representative.

E. Resolution of Conflicts

1. Contractor shall be responsible for stopping work and request prompt clarification when instructions are lacking, when conflicts occur in the specifications and/or paint manufacturer's literature, or the procedures specified are not clearly understood. Any questions concerning these specifications should be clarified prior to commencing the job. Any changes to these specifications would require written approval by Sherwin-Williams, the customer or customer's representative.

F. Coordination of Work

1. The general contractor and subcontractor shall be responsible for coordination of his work with the other crafts and contractors working on the same job and with the Management Company or owner.

G. Safety

1. All pertinent safety regulations shall be adhered to rigidly. In addition, all safety noted on the manufacturer's Product Data Sheets and labels shall be observed. Material Safety Data Sheets and Product Data Sheets are available from your local Sherwin-Williams store or representative or by visiting www.sherwin-williams.com.

2. Verify the existence of lead-based paints on the project. Buildings constructed after 1978 are less likely to contain lead-based paints. If lead-based paints are suspected on the project, all removal must be done in accordance with the EPA Renovation, Repair and Painting Rule or similar state regulation. Verify that owner has completed a Hazardous Material Assessment Report for the project prior to issuing of Drawings.

H. Jobsite Visitation

1. The contractor shall be responsible for visiting the jobsite and familiarizing himself with the job and working conditions.

2. All work during application is subject to inspection by the owner or his representative.

3. It will be the paint contractor's responsibility to own and use a wet film thickness gauge to check his application thickness as he proceeds.

4. Contractor and owner have complete responsibility for ensuring that the project specifications are followed, notwithstanding periodic visits to the project by any Sherwin-Williams representative.

5. Any questions concerning these specifications should be clarified prior to commencing the job. Any changes to these specifications would require written approval of the owner, agent, or Sherwin-Williams representative.

I. Surface Preparation

1. Each surface shall be cleaned, scrapped, sanded and prepared as specified. The painting contractor is responsible for the finish of his work. Should any surface be found unsuitable to produce a proper paint or sealant finish, the project representative shall be notified, in writing, and no materials shall be applied until the unsuitable surfaces have been made satisfactory. Commencing of work in a specific area shall be construed as acceptance of surfaces and thereafter as fit and proper to receive finish. Contractor shall be fully responsible for satisfactory work.

2. All deteriorated or delaminated substrates (i.e. wood, hardboard siding, T-111, stucco and masonry surfaces) shall be replaced with new materials. New substrates will be box primed (6 sides) before installation in accordance with specifications. Delaminating substrate is defined as a substrate surface that paint is being applied to lifting or peeling away from the previous coating/s or original substrate/s.

3. All exterior surfaces to be painted shall be pressure cleaned, scrapped to remove all dirt, mildew, peeling paint, chalk and any foreign materials detrimental to the new finish (see Pressure Washing).

4. Thoroughly sand all glossy surfaces to create a profile for paint and/or primer to adhere to.

5. Apply caulks and sealants where appropriate. All existing underperforming caulks or sealants should be removed and replaced with sealant as specified. Allow sealant to cure for specified time in dry weather before paint is applied. **NOTE**: It is recommended to apply all primers first and then apply sealant before topcoat is applied. See specified sealants section.

6. Knots and pitch streaks shall be scraped, sanded and spot primed before full priming coat is applied. All nail holes or small openings shall be patched after priming coat is applied. Any wood that is rotten, cracked, delaminated or water damaged should be replaced. Any loose or peeling paint should be removed by sanding and scraping. All hard, glossy surfaces should be sanded down to create a profile for new paint to adhere. Fill nail holes, imperfections and cracks with putty (color to match primer). Edges, corners and raised grain shall be prepared by sanding. Apply sealants to all joints between wood items with a specified sealant.

7. All masonry surfaces should be scrapped and cleaned to remove all peeling paint, delaminated surfaces or substrates, chalk, dirt, stains, efflorescence and other surface contaminants. These areas shall be pressure washed and scrubbed with a cleaner/degreaser solution. After cleaning if there is still chalk evident this should be brought to the owner's attention in writing before any further work is done. Use an industry accepted patch or filler to assure a visually aesthetic finished substrate. Any masonry surface should be toughly tested to assure the surface pH levels are within accepted range of coating/s to be applied.

8. Brick must be free of dirt, loose or peeling paint, loose and excess mortar, delaminating layers of the brick, and foreign material. All brick should be allowed to weather for at least one year followed by wire brushing to remove efflorescence. Treat the bare brick with one coat of Loxon Conditioner. Any areas of breakage shall by patched and dried using specified Sherwin-Williams patching compound in accordance with Product Data Sheet instructions before coatings are applied.

9. All galvanized gutters and flashing should be thoroughly cleaned and sanded to remove loose and peeling paint. Any bare galvanized metal should be wiped down with a non-petroleum solvent cleaner.

10. All ferrous metals should be thoroughly cleaned and all loose rust or mill scale be removed by wire brush, scraper and/or power tool, such as an electric drill with wire brush attachment. Any rust spots or bare metal should receive the specified prime coat. Any hard, glossy surfaces should be sanded or dulled. Previously painted hand rails in sound condition should be washed down with a strong degreasing cleaner such as Krud Kutter, M-1 House Wash or Simple Green.

11. All vinyl siding should be clean thoroughly by scrubbing with a warm, soapy water solution. Rinse thoroughly. Do not paint vinyl siding with any color darker than the original color, unless the product and color are designed for such use. Painting with darker colors may cause siding to warp.

12. Cement Composition Siding/Panel/Fiber Cement Sidings : Remove all surface contamination by washing with an appropriate cleaner, rinse thoroughly and allow to dry. Existing peeled or checked paint should be scraped and sanded to a sound surface. Pressure clean, if needed, to remove all dirt, dust, grease, oil, loose particles, laitance, foreign material, and peeling or defective coatings. Allow the surface to dry thoroughly. The pH of the surface should be 7 or less, unless the products are designed to be applied to high pH substrates..

13. EIFS: Remove all surface contamination by washing with an appropriate cleaner, rinse thoroughly and allow to dry. Remove and replace any peeling or delaminating surfaces. Replace EIFS to manufactures recommendation.

J. Moisture

All areas that could cause paint failure due to moisture should be addressed and eliminated. This would include but is not limited to:

1. Gutters and downspouts not working properly.
2. Previous coats of paint not adhering properly.
3. Wood checking (cracks and splits in wood).

4. Deteriorated caulking or sealant.
5. Gaps between substrates.
6. Rotten wood.
7. Areas affected by water splashing.
8. Painting in inclement weather.
9. Painting an undry substrate.
10. Uncaulked nail holes.

K. Pressure Washing & Surface Preparation

1. Pressure wash or water blast to remove oil, grease, dirt, loose mill scale and loose paint by water at pressures of 2500-3000 p.s.i. Power tool clean per SSPC-SP3 to remove loose rust and mill scale. Hand tool clean per SSPC-SP2 and sand all glossy surfaces to promote adhesion.

2. Remove mildew per the following:
    a. Tools: Stiff brush, garden pump sprayer or chemical injector power washer method.
    b. Remove before painting by washing with a solution of 1 part liquid bleach and 3 parts water. Apply the solution and scrub the mildewed area. Allow the solution to remain on the surface for 10 minutes. Rinse thoroughly with water and allow the surface to dry before painting. Wear protective eyewear, waterproof gloves, and protective clothing. Quickly wash off any of the mixture that comes in contact with your skin. Do not add detergents or ammonia to the bleach/water solution.

L. Application

1. Contractor shall be responsible for notification of owner's representative before beginning work if conditions substantially exceed Scope of Work.

2. Contractor shall protect his/her work at all times and shall protect all adjacent work and materials by suitable covering or other method during progress of the work. Upon completion of work, he/she shall remove all paint and varnish spots from floors, glass and other surfaces. He shall remove from premises all rubbish and accumulated materials of whatever nature not caused by others and shall leave his part of work in a clean, orderly, and acceptable condition.

3. Remove and protect hardware, accessories, device plates, lighting fixtures, factory finished work and similar items or provide ample in-place protection. Upon completion of each space, carefully replace all removed items.

4. Cover all electrical panel box covers and doors before painting walls. Omit if covers have been previously painted.

5. Materials shall be applied under adequate illumination, evenly spread and flowed on smoothly to avoid runs, sags, holidays, brush marks, air bubbles and excessive roller stipple. The finished paint film should be a consistent color and sheen to provide a uniform appearance.

6. All coats shall be dry to manufacturer's instructions before applying additional coats.

7. Any masonry surface with an elevated pH level or "hot spots" shall be sealed with a suitable primer/sealer prior to application of finish coat. High pH is considered at a level of 7 pH or greater.

8. When spray painting is specified, contractor shall finish 100 square feet by spraying a sample of finish upon request of owner. This shall be finished with materials specified and shall be called a Pilot Wall.

9. Exterior doors with paintable tops, bottoms, and side edges should be painted or sealed using the Door Manufacturer's paint specification and recommendations.

10. Building by building inspections will be made by the owner or his representative. If requested, a Sherwin-Williams representative may participate in these visits for technical consultation.

11. All repairs, replacements and applications are to meet or exceed all manufacturers' and attached specifications.

12. Elastomeric coatings shall not be applied directly over pre-existing elastomeric coatings.

13. Coverage and hide shall be complete. When color, stain, dirt, or undercoats show through final coat of paint, surface shall be covered by additional coats until paint film is of uniform finish, color, appearance and coverage (regardless of amount of coats specified).

M. Workmanship & Application Conditions

1. Keep surface dust, dirt and debris free before, during, and after painting, until paint is cured.

2. Execute work in accordance with label directions. Coating application shall be made in conformance to this specification and to the manufacturer's paint instruction on the labels and Product Data Sheets.

3. All work shall be accomplished by persons with the necessary skill and expertise and qualified to do the work in a competent and professional manner.

4. All shrubbery, outside carpeting and sprinkler systems shall be fully protected against damage during each stage of the painting project.

5. Paint all previously painted surfaces, including, but not limited to: stair systems, light poles and fixtures, pool fence, and underside of balconies. Any potentially hazardous substrate shall be reviewed with owner and owner's agent. All necessary safety precautions must be fully taken to ensure worker's safety.

6. All exterior substrates designated not to receive paint coatings shall be kept free of paint residue, i.e., windows, outdoor carpeting, walkways, etc.

7. Owner shall provide water and electricity from existing facilities.

8. Normal safety and "wet paint" signs, necessary lighting and temporary roping off around work areas shall be installed and maintained in accordance with OSHA requirements while the work is in progress.

9. A progress schedule shall be furnished by the contractor to the owner for approval and shall be based on the contract completion date. Contractor shall advise the owner of those areas in which work is to be performed sufficiently in advance of the work schedule to permit the owner to prepare for the work, advise residents, move vehicles, etc.

10. Do not paint over any code required labels or any equipment identification, performance rating, name or nomenclature plates.

11. Coverage and hide shall be complete. When color, stain, dirt, or undercoats show through final coat of paint, surface shall be covered by additional coats until paint film is of uniform finish, color, appearance and coverage (regardless of amount of coats specified).

N. Weather

1. All materials are to be applied in accordance with the product data page in regards to weather conditions. Stop exterior work early enough in the day to permit paint film to set up before condensation caused by night temperature drops occurs.

2. Do not begin painting until surfaces are moisture free.

O. Color Schedule

1. To be approved by owners.

2. The owner and project coordinator should be aware that certain colors, especially darker tones, fade more rapidly than other colors, regardless of the product manufacturer, product type, or substrate to which the product is applied. It is advisable for the owner, project coordinator, and/or person responsible for color selection to consult with Sherwin-Williams early in the planning stage to assure the most durable combination of tinting formulation is used to achieve the desired color. Additionally, color selection affects the hiding ability of the finish coats.

P. Coating Maintenance Manual

1. Upon conclusion of the project, the Contractor or paint manufacture/supplier shall furnish a coating maintenance manual, such as Sherwin-Williams "Custodian Project Color and Product Information" report or equal. Manual shall include an Area Summary with finish schedule, Area Detail designating where each product/color/finish was used, product data pages, Material Safety Data Sheets, care and cleaning instructions, touch-up procedures, and color samples of each color and finish used.

Recommended Coatings Systems

Thank you for the submittal of Sherwin-Williams products on the above referenced project. The Sherwin-Williams Company certifies that the products we intend to furnish will meet or exceed the performance requirements of the job specifications.

Surface preparation, application methods, spreading rates, and wet and dry film thicknesses will be determined by the attached specifications and our Material Safety Data Sheets, available at www.sherwin-williams.com, except as noted below.

All surface contamination, such as mildew, chalk, grease, dirt, grime, rust, efflorescence, old loose peeling paint, rotten wood and hard glossy surfaces, needs to be removed by pressure washing, prep work and hand tool clean, before a new coating system can be applied. Be sure to read and follow the Data Sheets before application.

Minimum Recommended Surface Preparation

SSPC-SP1: Remove all oil, grease, chalk and other surface contamination
SSPC-SP2: Remove all rotten wood, peeling paint and rust

Surface Cleaner: Krud Kutter Wash Cleaner or equivalent non-residue surface cleaner
Sealant: Concrete and Masonry Elastomeric Patching Material and Loxon S-1 Sealant

Caulks and Sealants

Execution

A. Do not begin application of caulk or sealants until substrates have been properly prepared. Notify Architect of unsatisfactory conditions before proceeding.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. Proceed with work only after conditions have been corrected, and approved by all parties, otherwise application of caulks and sealants will be considered as an acceptance of surface conditions.

Surface Preparation

A. Clean all joints by removing any foreign matter or contaminants that would impede adhesion of the sealant to the building material. The surface must be dry and in sound condition. Remove oil, dust, dirt, loose rust, peeling paint or other contamination to ensure good adhesion.

B. Porous materials are usually treated by mechanical means and nonporous surfaces by a solvent wipe that is compatible with the building substrate being used. **Note:** For porous surfaces, the use of detergent or soap & water is NOT recommended.

C. Existing sealants intended to be painted should be tested to assure coatings will fully adhere. Silicone sealants cannot be painted unless tested and approved by Sherwin-Williams and Owner.

D. Priming: When required, apply a primer. Do NOT allow it to pool or puddle.

E. Install backup materials as required to ensure that the recommended depth is regulated when using the backup material.

F. No exterior caulking should be done immediately after a rain, during foggy weather, when rain is predicted, or when the temperature is below 50°F, unless products are designed specifically for these conditions.

Installation

A. Apply all caulks and sealants with manufacturer specifications in mind.

B. Do not apply to wet or damp surfaces.

1. Wait at least 30 days before applying to new concrete or masonry, or follow manufacturer's procedures to apply appropriate sealants prior to 30 days.
2. Wait until wood is fully dry after rain or morning fog or dew.

C. Apply sealants using methods recommended by manufacturer.

D. Uniformly apply caulks and sealants without skips, voids or sags. Tool bead to a consistent, smooth surface.

Concrete: Vertical Applications

1. Exterior Polyurethane:
Sherwin-Williams Loxon S-1 Urethane Sealant

Concrete: Horizontal Applications (floor to wall sections)

1. Exterior Polyurethane:
Sherwin-Williams: Loxon S-1 One Component Self Leveling for Horizontal Surfaces

Column bases

1. Exterior Urethane
Sherwin-Williams: Loxon S-1 Urethane Sealant

Railing bases

1. Exterior Urethane
Sherwin-Williams: Loxon S-1 Urethane Sealant

Gaps: Large Areas

1. Interior/Exterior Insulating Foam:
Sherwin-Williams STOP GAP! Triple Expanding Insulating Foam

Metal: Ferrous and Non-Ferrous

2. Exterior Polyurethane:
Sherwin-Williams Loxon S-1 One Component Smooth

Paint and Coatings Systems

Additional coats of paint may be required depending on the selection of colors, substrate conditions, and application procedures. Painters/GC must bid accordingly.

Corrugated Metal walls and ceilings

A. **Prime Coat: GAF *Acrylex 400 Primer (Refer to Manufacture's Technical data pages for application and recommended spread rates)***
B. Finish*: GAF Kymax Coating (Refer to manufacture's Technical data pages for application and recommended spread rates)*

Gutters and Downspouts

A. Prime Coat: GAF *Acrylex 400 Primer (Refer to Manufacture's Technical data pages for application and recommended spread rates)*

B. Finish Coat: GAF *Kymax Coating (Refer to manufacture's Technical data pages for application and recommended spread rates)*

Metal Entry Doors and window trim

A. Spot Prime: Pro Cryl Universal Metal Primer B66 series (5 mils WFT 2 mils DFT)
B. Finish Coat: Pro-Industrial DTM Acrylic Semi-Gloss B66 series (DFT 2.5 mils)

All wood surfaces including trim, certain fences and t-111 surfaces

A: Spot Prime: Pro-Block Latex Primer B51W620
B.Finish Coat: Super Paint Exterior Satin A89 series (4.8 mils DFT, 1.8 milsWFT)

CMU Walls

A. Prime Coat: Loxon Conditioner (A24 series) (applied 400 sqf per gallon)
B. Finish Coat: Super Paint Exterior Satin A89 series (4.8 mils DFT, 1.8 milsWFT)

Ferrous Metal Support Beams

A. Spot Prime: Pro-Cryl Universal Metal Primer B66 Series (DFT 2 mils)
(Removal of all loose coating prior to primer application required)
B. Finish Coat: Pro-Industrial DTM Acrylic Semi-Gloss B66 series (DFT 2.5 mils)

Safety Bollards

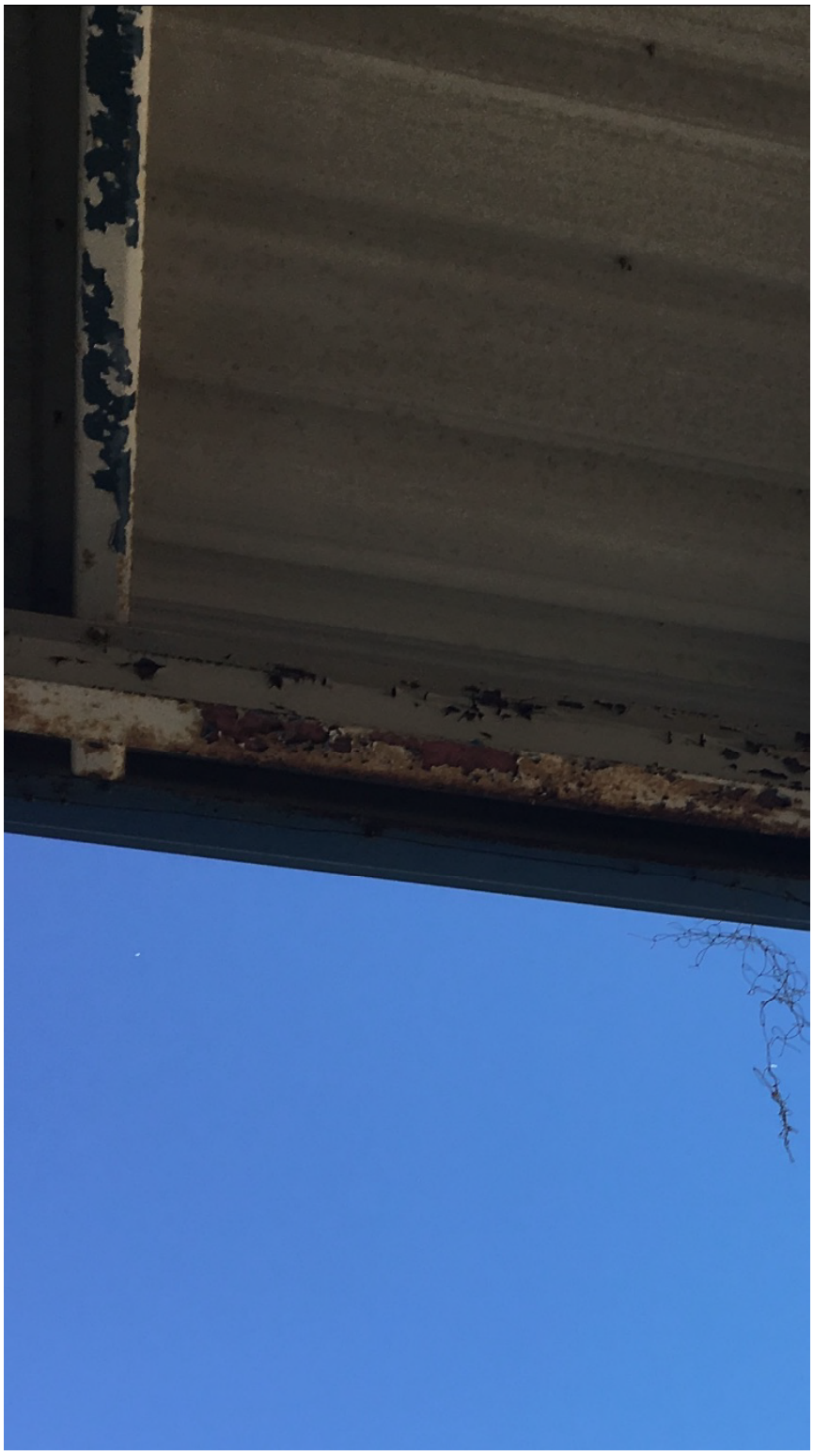
A. Spot Prime: Pro-Cryl Universal Metal Primer B66 series (5 mils WFT, 2 Mils WFT)
B. Finish Coat: DTM Acrylic Safety Yellow (B66 series) (2.5 Mils WFT)

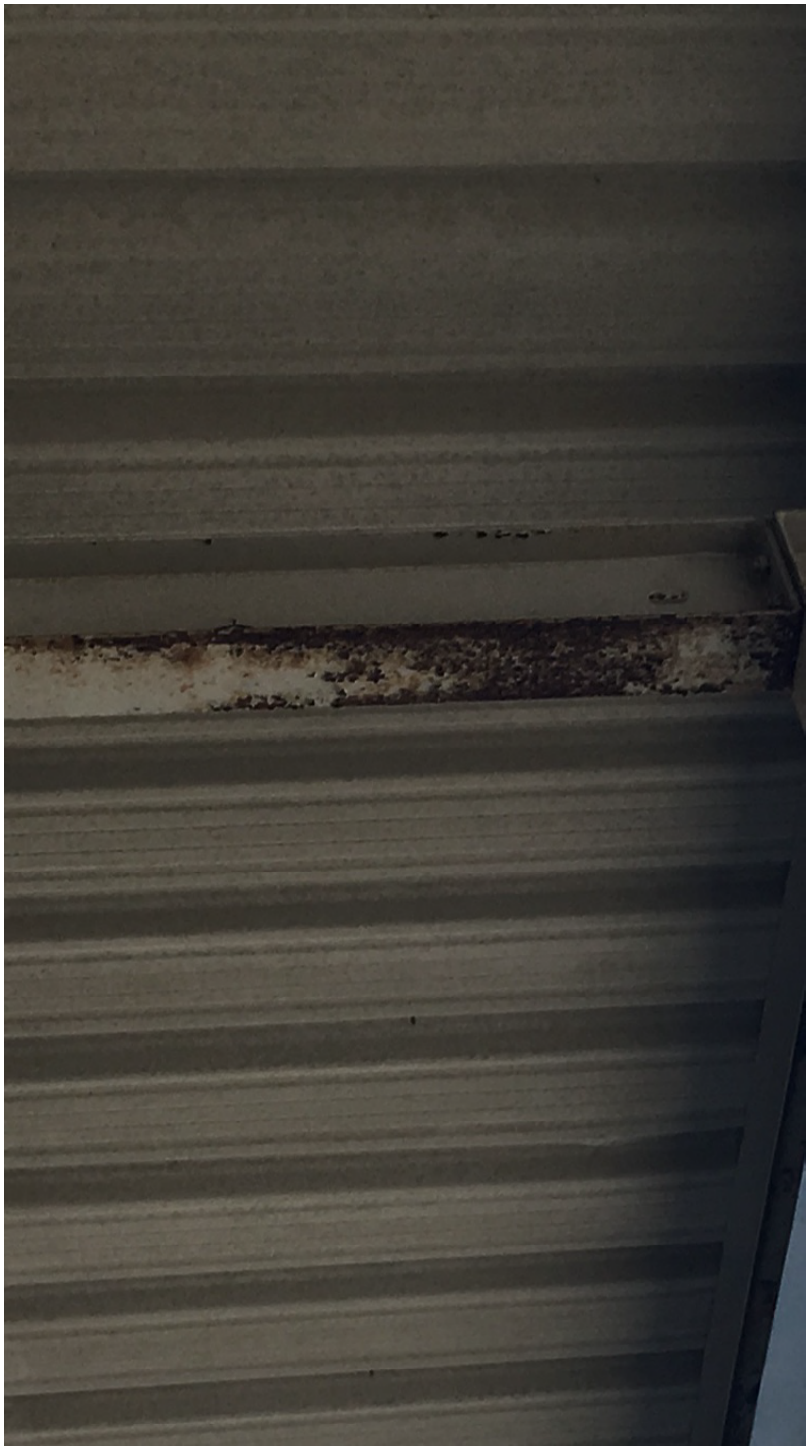
Factory Finish Metals

A. Prime Coat: GAF *Acrylex 400 Primer (Refer to Manufacture's Technical data pages for application and recommended spread rates*

B. Finish Coat: GAF *Kymax Coating (Refer to manufacture's Technical data pages for application and recommended spread rates)*

Loose coating needs to be removed prior to coating application

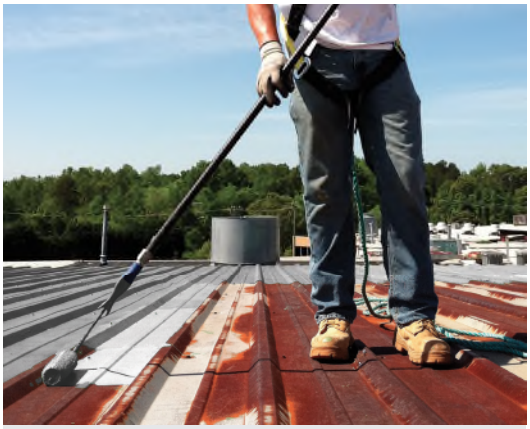




All mill scale rust to be removed prior to Primer application

Acrylex 400 Primer

Technical Data Sheet



PRODUCT DESCRIPTION

Acrylex 400 Primer is a single component, premium-quality, exterior acrylic latex primer that is blister and stain resistant, permanently flexible, and highly durable. It exhibits excellent corrosion resistance over metal substrates, alkali resistance over concrete and masonry, and tannin-blocking ability over wood surfaces. Due to its application versatility, it can be top-coated with a wide variety of finish coats. Its fast-dry quality, weather-resistant characteristics, and extended open time also make it an effective shop primer. Possesses excellent non-lifting characteristics.

PACKAGING & SHELF LIFE

1-gallon (3.8 liter) can
5-gallon (18.9 liter) pail
55-gallon (208 liter) drum

Shelf Life: 18 months from date of manufacture in unopened containers, if stored properly in a clean and well-ventilated area at 40°F – 90°F (4°C – 32.2°C). Storage outside this temperature range may shorten shelf life. Keep containers covered when not in use. Do not allow material to freeze.

GAF Liquid-Applied

January 2017, supercedes March 2016

BASIC USES & ADVANTAGES

Acrylex 400 Primer is effective in providing corrosion protection, flash rust resistance, and enhanced adhesion over steel, aluminum, and galvanized metal surfaces.

Acrylex 400 Primer can be used over new or unpainted wood, where it is effective at blocking tannin bleed-through. It is also effective at locking down residual chalkiness on previously painted exterior surfaces. Over concrete and masonry substrates, it provides alkali resistance.

Advantages:

- **Application Versatility...** Exhibits excellent adhesion over a wide variety of substrates: steel, aluminum, galvanized metal, galvalume, wood, concrete, masonry, brick, and selected previously painted surfaces.
- **Non-Lifting...** Top coats with strong solvents may be applied over cured **Acrylex 400 Primer** without lifting or bubbling the primer from the metal surface.
- **Excellent Flexibility...** The high ratio of acrylic resins provides for maximum penetration and flexibility characteristics. It will not become brittle with age.
- **VOC Compliant...** Water-based product and conforms to most local, state, and federal environmental regulations and VOC requirements.

PHYSICAL PROPERTIES

ACRYLEX 400 PRIMER	
Solids by Weight	46% (±1) [ASTM D2369]
Solids by Volume	36.2% (±1) [ASTM D2697]
Weight per Gallon	10.1 lb (4.6 kg) (±2) [ASTM D1475]
VOC	<100 g/L (calculated)
Application Temperature (air, surface):	50°F – 105°F (10°C – 40°C)

Dry Time to Touch	20–30 minutes @ 75°F (24°C), 50% R.H. [ASTM D1640]
Cure Time for Recoating	1–24 hours @ 75°F (24°C) [ASTM D1640] Recoating time for water-based products is approximately 1 hour. Allow 24 hours prior to recoating with solvent-based products.

APPLICATION INSTRUCTIONS

Substrate Preparation: All surfaces must be clean and dry, and free from dirt, grease, oils, curing or form release agents, soapy films, pollution fallout, surface chemicals, unsound rust, scale, and other foreign contaminants that may interfere with optimum adhesion. Refer to technical data for detailed preparation instructions.

Application: Acrylex 400 Primer may be applied by brush or conventional or airless sprayer. Coverage rate will vary from 0.33 – 0.67 gallons/100 ft² (1.34 – 2.73 L/ 10 m²), depending upon the substrate, surface profile, and porosity. One coat is usually sufficient for priming most surfaces.

Spray Application: Any airless spray pump capable of 1,000 psi (6,980 kPa) and 0.5 gallon (1.9 liters) per minute output can be used. A reversible, self-cleaning tip with orifice size of 0.015" – 0.021" (0.38 mm – 0.53 mm) and a minimum fan angle of 40° is recommended. Filter screens should be 60 mesh or smaller. Use 1/4" (6.4 mm) inside diameter, nylon high-pressure hose for lengths up to 75 ft (23 m) from pump. From 75 ft – 200 ft (23 m – 51 m), use 3/8" (9.5 mm) inside diameter hose added to pump side of existing 1/4" hose to maintain pressure and delivery. Over 200 ft (51 m), use 1/2" (12.7 mm) inside diameter hose added to pump side of existing hose.

When using **Acrylex 400 Primer** as a spot primer over previously coated surfaces, abrade the existing material to a feather edge so that the top coat makes a smooth transition over the primed areas. Apply using multi-directional spray passes to ensure positive coverage. On porous or textured surfaces requiring more than one coat, subsequent coats should be applied in a direction perpendicular to the previous coat after it has dried.

Acrylex 400 Primer can be coated as soon as it is thoroughly dried, and should normally be coated within 48 hours of application.

For Application Questions: Contact GAF Technical Services at 1-800-766-3411 or visit gaf.com.

Applicable Standards: ASTM D2369, ASTM D2697, ASTM 1475, ASTM D1640

continued on next page

APPLICATION INSTRUCTIONS, CONT'D

SUBSTRATE	COVERAGE RATE
Galvanized Metal	0.3 gal/100 ft² (1.4 L/10 m²)
Steel	0.5 gal/100 ft² (2 L/10 m²)
Aluminum	0.3 gal/100 ft² (1.4 L/10 m²)
Smooth Concrete	0.4 gal/100 ft² (1.6 L/10 m²)

SUBSTRATE	COVERAGE RATE
Standard Block	0.5 gal/100 ft² (2 L/10 m²)
Lightweight or Textured Block	0.7 gal/100 ft² (2.7 L/10 m²)
Wood	0.3 – 0.4 gal/100 ft² (1.4 – 1.6 L/10 m²)

LIMITATIONS & PRECAUTIONS

Acrylex 400 Primer will freeze and become unusable below 32°F (0°C). Do not ship or store unless protection from freezing is available.

Do not apply if conditions will not permit complete cure before rain, dew, or freezing temperatures occur. Do not apply **Acrylex 400 Primer** at temperatures below 50°F (10°C), or when there is a possibility of temperatures falling below 32°F (0°C) within 2 hours of application.

SAFETY & HANDLING

Approved OSHA/NIOSH chemical cartridge respirator must be worn by applicator. Avoid contact with eyes and skin. For specific information regarding safe handling of this material, please refer to the Safety Data Sheet (SDS).

CLEAN-UP

Use water and **United Cleaning Concentrate (UCC)** to thoroughly flush the equipment. Purge the water from the system using a mild solvent, leaving the solvent in the lines until next use.

GAF
1 Campus Drive
Parsippany, NJ 07054
1-800-ROOF-411
gaf.com

See applicable warranties and guarantees for complete coverage and restrictions.

Kymax™ Coating Product Data Sheet

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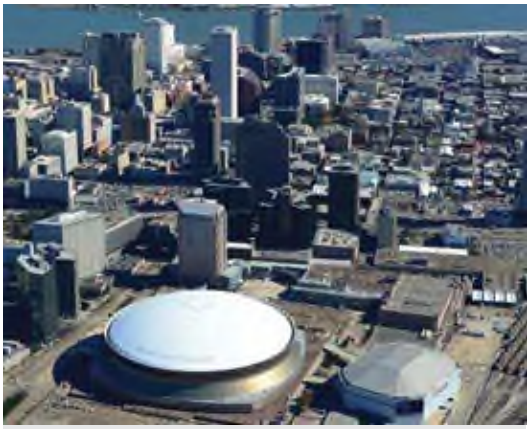
North America's Largest Roofing Manufacturer!™

Kymax™ Coating

Product Data Sheet



PRODUCT DESCRIPTION

United Coatings™ Kymax™ Coating is a PVDF fluoropolymer top coat designed to deliver superior durability and performance. A water-based product, it cures at ambient temperatures. **Kymax™ Coating** is a low build elastomeric finish coat that provides the ultimate in reflectivity, color stability, algae resistance, and weatherability over new or existing roof surfaces. Although it is highly flexible, it exhibits a tough, enamel-like finish that resists abrasion, biological growth, dirt, oil, and all types of weather extremes.

PACKAGING & SHELF LIFE

Kymax™ Coating is a single-component, ready-to-use material.

5-gallon (18.9 liter) pail
55-gallon (208 liter) drum

Shelf Life: 18 months from date of manufacture in unopened containers, if stored properly in a clean and well-ventilated area at 40°F – 70°F (4°C – 21°C). Storage outside this temperature range may shorten shelf life. Keep containers covered when not in use. Do not allow coating to freeze.

**Kynar®, Kynar®500, and Kynar Aquatec® are registered trademarks of Arkema Inc.*

GAF Liquid-Applied

September 2016, supercedes January 2016

BASIC USES & ADVANTAGES

United Coatings™ Kymax™ Coating was specifically designed for application as a thin-build finish coat over acrylic top coats, such as **United Coatings™ Roof Mate™ Top Coat, HydroStop® PremiumCoat® Finish Coat, United Coatings™ Diathon® Roof Coating,** and **United Coatings™ Acron 60 Roof Coating. Kymax™ Coating** is used to increase reflectivity, dirt pick-up and algae/mildew resistance.

Typical substrates include metal roofs, sprayed-in-place polyurethane foam, modified bitumen, BUR, PVC, KEE, TPO, Hypalon®, and EPDM. **Kymax™ Coating** is an excellent barrier to plasticizer migration, and is also effective in preventing asphalt bleed-through. **Kymax™ Coating** is recommended whenever exceptional weatherability and/or reflectivity are required, whether the threat is algae, mildew, dirt, or industrial fallout. It also provides exceptional UV and color stability.

Advantages:

- **High Reflectivity/Emissivity — Kymax™ Coating** is Cool Roof Rating Council (CRRC) rated, having a Solar Reflectance of 87% and a Thermal Emittance of 89%. An independent test report performed by Atlas Material Testing Solutions calculated the Total Emittance at 94%. The Solar Reflectance Index (SRI) is 110 per ASTM E1980, which is among the highest of any roof coating.
- **Reduced Energy Costs — Kymax™ Coating** has the ability to repel dirt, biological growth, pollution fallout, and other contaminants, as well as resist degradation from UV and weather exposure. This enables the white top coat to effectively reflect the sun's heat over long-term exposure, unlike dark-colored roofing materials that retain heat and are subject to ultraviolet degradation. Roof temperatures can be reduced in excess of 70°F (21°C), which significantly reduces air-conditioning loads and helps lower cooling costs. Independent studies show a reduction of over 20% in air-conditioning use.
- **Microbiological Resistance — Kymax™ Coating** was independently tested for fungal resistance as per ASTM G21-96. After exposure to *Aspergillus niger*, *Aureobasidium pullulans*, *Chaetomium globosum*, *Penicillium funiculosum,* and *Trichoderma virens* for 4 weeks at 82.4°F (28°C), the **Kymax™ Coating** test panels showed no growth.
- **Color and Gloss Stability — Kymax™ Coating** is manufactured using Kynar Aquatec® resin, which is based on proven Kynar 500® technology. This PVDF homopolymer is universally known as the world's most weatherable coating resin, and is virtually immune to UV degradation. The mixed metal oxide pigments used for tinting **Kymax™ Coating** provide ultimate color stability and gloss retention, and are able to provide relatively high reflectivity values, even in darker colors.

PHYSICAL PROPERTIES

KYMAX™ COATING	
Solids by Weight	52% (±2) [ASTM D1644]
Solids by Volume	36% (±2) [ASTM D2697]
Weight per Gallon	11 lb/gal (1.32 kg/L) [ASTM D1475]
Dry Time for Water Resistance	6 hours @ 75°F (24°C) at 5 wet mils (0.13 mm)
VOC	<200 g/L (coating) [per EPA 23]
Tensile Strength	1,000 psi (±100) (6.9 MPa) [ASTM D2370] After 1,000 hours accelerated weathering: 1,050 psi (7.2 MPa)
Elongation	120% (±20) [ASTM D2370] After 1,000 hours accelerated weathering: 150%
Permeance	>3 @ 3 mils Dry Film Thickness (0.08 mm) [ASTM D1653]
Flexibility	Passes ¼" (6 mm) mandrel bend @ -15°F (-26°C) [ASTM D6083 / ASTM D522]
Hail Resistance	FM Severe Hail rated

Water Absorption	5.2% = Pass [ASTM D570]
Tear Resistance	>200 PLI (14.4 kN/m) [ASTM D1004]
Abrasion Resistance	30 L/mil Falling Sand Test [ASTM D968]
Accelerated Weathering	4,000 hours = Pass [ASTM D4798/G155 or G154 UVB 313]
Florida Weathering G7 – 1 Year	Gloss Retention: >80% [ASTM D523] Fade: ΔE<3.0 CIE units [ASTM D2244] Chalking: 9 minimum [ASTM D4214] Adhesion: 100% [ASTM D3359]
Standard Colors	Kymax™ Coating is available in standard White. All other colors are custom matched by GAF for the specific application. **Color chips or samples must be furnished to GAF for all custom colors (other than White).**

continued on next page

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APPROVALS	
UL 790 Class A	Kymax™ Coating is UL Classified as a Class "A" Fluid Applied Coating System as outlined in the *UL Roofing Materials & Systems Directory* and UL website.
Factory Mutual (FM)	Listed in RoofNav for the full FM 4770 protocol including wind, hail, leakage, weathering, impact, corrosion, and fire ratings. Kymax™ Coating is also an FM 4470 Maintenance Coating for use over existing FM-approved roof systems.
CRRC (Cool Roof Rating Council) coolroofs.org	***Kymax™ Coating White*** Initial Solar Reflectance 0.87 Initial Thermal Emittance 0.87 Initial SRI 110 Product ID 0614-0036
Department of Energy, ENERGY STAR® (U.S. only)	ENERGY STAR® Certified (USA Only)
California Title 24	Rated by the Cool Roof Rating Council (CRRC) for use in Title 24 Projects

APPLICATION INSTRUCTIONS, CONT'D.

SUBSTRATE PREPARATION: Clean and prepare surfaces to receive coating by removing all loose and flaking particles, grease, and laitance with the use of a stiff-bristle push broom and/or pressure washing. Be sure that the substrate is dry before applying the coating. See gaf.com for more details.

MIXING: Thoroughly mix using a power mixer for a minimum of 5 minutes prior to application. For 5-gallon (18.9 L) pails, use a 3" (76 mm) minimum diameter mixing blade; for 55-gallon (208 L) drum, use a 6" (152 mm) minimum diameter blade.

APPLICATION: Apply product with an airless sprayer, covering the surface at an even rate. Use an airless spray pump with a 3/4" gallon-per-minute (2.8 L/minute) output and 1,500 psi (10,345 kPa) pressure capability. Use a reversible, self-cleaning tip with orifice size 0.027" – 0.039" (0.69 – 0.99 mm) and a fan angle of 40° to 50°. Filter screens should be 60 mesh or larger. Use a 3/8" (9.5 mm) minimum inside diameter, nylon high pressure-type hose for lengths up to 75 ft. (23 m) from pump. For 75 ft. – 200 ft. (23 – 61 m), use 1/2" (12.7 mm) inside diameter hose added to pump side of existing 3/8" (9.5 mm) hose to maintain pressure and delivery. Apply at a rate of 0.40 gal/100 ft² (1.6 L/10 m²) per coat. Total coverage depends on substrate. Rough substrates will require more. Minimum two coats required.

APPLICATION NOTE: Requires complete evaporation of water to cure. Cool temperatures and high humidity will slow curing.

For Application Questions: Contact GAF Technical Services at 1-800-766-3411 or visit gaf.com.

Applicable Standards: ASTM D1653, ASTM D2370, ASTM D522, ASTM D570.

LIMITATIONS & PRECAUTIONS

United Coatings™ Kymax™ Coating should generally not be used over cold storage tanks or buildings where a vapor barrier coating is required. **Kymax™ Coating** shall not be used for interior applications in place of a thermal barrier.

Kymax™ Coating will freeze and become unusable at temperatures below 32°F (0°C). Do not ship or store unless protection from freezing is available. **Kymax™ Coating** requires complete evaporation of water to cure. Cool temperatures and high humidity slow cure. Do not apply if weather conditions will not permit complete cure before rain, dew, or freezing temperatures occur. Do not apply in the late afternoon if heavy moisture condensation can appear during the night.

Do not apply **Kymax™ Coating** at temperatures below 60°F (15°C), or when there is a possibility of temperatures falling below 32°F (0°C) within a 24-hour period after application.

Kymax™ Coating is slippery when wet. Exercise caution when walking on roof under these conditions.

SAFETY & HANDLING

For specific information regarding safe handling of this material, please refer to the Safety Data Sheet (SDS).

CLEAN-UP

Thoroughly rinse application equipment with clean water.

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