UNIFLEX®
Fluid Applied Roofing Systems

UNIFLEX ELASTOMERIC COATING SYSTEM FOR APPROVED TPO & PVC MEMBRANE ROOFS

PART 1: GENERAL

1.01 Description of Work

A. This specification is for the application of UNIFLEX® products and should be used only as a general guide. Additional details and specific areas of repair are to be selected, modified or added, as necessary.

B. The coating system is designed to restore and protect approved TPO & PVC Membrane roofs from further degradation and extend the useful life of the roof.

C. Additional details and specific areas of repair are to be selected, modified, or added as necessary.

1.02 Quality Assurance

A. *Manufacturer Qualifications*: Manufacturer shall have been in the roof coating business a minimum of 20 years. Manufacturer must be ISO 9001:2008 Certified.

B. *Requirements of Regulatory Agencies*: Furnish and apply all roofing materials in accordance with all regulatory agencies and approved building codes.

C. *Contractor Qualifications*:

1. Contractor shall have business stability and own proper equipment to prepare and apply materials as described herein.
2. Contractor must provide proof of insurance including liability and workers' compensation certificates.
3. Contractor must be an approved Uniflex® Applicator for the specific project and Warranty Requirements. Systems warranties available only to UNIFLEX® Authorized Premier or Premier Elite Contractors.

1.03 Conformance Standards

A. Underwriters Laboratory (UL), Class A

B. FM Global approved

C. Miami-Dade

D. FBC – Florida Building Code

E. California Title 24

F. NSF P151

1.04 Submittals

A. Manufacturer's technical product data, literature, contractor drawings and certificates will be submitted.

1.05 Product Storage and Handling

A. Deliver materials in manufacturer's original unopened containers bearing manufacturer's original label.

B. Store and handle products in a manner ensuring no possibility of contamination.

C. Store materials at a minimum of 50°F prior to use.

1.06 Job Conditions

A. Environmental Requirements

1. Do not begin work if rain is expected within 24 hours of application. Do not apply if weather does not permit 4-6 hours dry time prior to rain, fog or temperatures below 50°F.
2. All surfaces to be coated must not pond water. Water that evaporates within 48 hours is not considered a pond.
3. All surfaces shall be clean, dry and structurally sound.
4. Adhesion tests are required on all PVC and TPO substrates. UNIFLEX Bond-It Wash Primer may or may not be required for adhesion dependant on substrate. Consult your UNIFLEX® Representative for prior approval.

B. Protection and Coordination

1. Owner will occupy the premises during the entire project. Cooperate with Owner during construction operations to promote continued use of the facility.
2. Coordinate scheduling with the Owner in order to relocate or protect vehicles, building occupants, and building contents from damage during construction operations.

1.07 Warranty

A. Systems warranties available only to UNIFLEX® Authorized Premier or Premier Elite Contractors.

B. Systems Warranties: Reinforcing with Polyester Fabric is required, and not limited to, seams, protrusions and wall transitions.

PART 2: PRODUCTS

2.01 General

A. All coating systems must be products of UNIFLEX® Fluid Applied Roofing Systems.

1. UNIFLEX® White Elastomeric is a 100% acrylic polymer elastomeric coating (refer to data sheet 41-300).
2. UNIFLEX® SPE Gray Acrylic Base Coat is formulated from a unique cross-linking acrylic polymer for enhanced adhesion (refer to product data sheet 41-321).
3. UNIFLEX® Seam Tape is a polyester faced, modified butyl rubber adhesive tape (refer to data sheet 20-806).
4. UNIFLEX® Acrylic Patching Cement is a fibered reinforced acrylic cement (refer to data sheet 41-220).

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PART 2: PRODUCTS

5. UNIFLEX® Polyester Fabric is a stitchbonded polyester fabric (refer to data sheet 20-385).
6. UNIFLEX® Slope Builder is designed to build up low lying roof areas to eliminate water ponding. (Refer to data sheet OSLPBD)
7. UNIFLEX® Bond-It Wash Primer is a single-component, water based wash primer (refer to data sheet 38-620).

2.02 Roof Coating System

A. Approved Manufacturer

B. Approved Coating: UNIFLEX Elastomeric Roof Coating

Vehicle Base	100% Acrylic Resin
Elongation/Tensile @ 77°F	
Initial Elongation	180%
Tensile Strength	240 psi
1000 Hrs. Xenon Arc	130%@73°F
Solids by weight	67 ± 2%
Solids by volume	52 ± 2%
Permeance (ASTM D1653)	4 perms
Initial Solar Reflectance	0.86
Initial Thermal Emittance	0.91
SRI	108

PART 3: EXECUTION

3.01 Inspection

A. The roof surface must be clean, dry, free of ponding water, and structurally sound.

B. Any discharge of fumes or possible contaminants must be noted. Contact UNIFLEX® to determine if fumes or matter being exhausted will interfere with adhesion.

C. Inspect the membrane surface for cracks, blisters, chalking, crazing, and shrinking.

D. Inspect flashing details including penetrations, curbs, expansion and transition joints, wall terminations, and drain details.

E. Inspect and probe all field seams and patches.

F. Inspect and determine if substrate, insulation or deck is deteriorated and should be replaced.

G. Inspect for insulation fastener and/or plates backing out.

3.02 Surface Preparation

A. Any necessary repairs or replacement of deck and/or insulation must be completed.

B. Cleaning

1. If Bond-It Wash Primer is required based on adhesion test:
   a. The membrane must be free of all dirt and debris prior to applying the Bond-It Wash Primer.
   b. Prepare the membrane and flashings for coating by applying the UNIFLEX® Bond-It Wash Primer.
      i. Apply at a rate of 400 - 500 sq. ft./gal. A 2-3 gallon agricultural tank pressure sprayer is recommended to apply the Wash Primer. Adjust the nozzle to achieve a uniform spray pattern with 3-4 foot arc. Conventional airless spray equipment using a .015" - .017" tip may also be used.
      ii. Allow the Wash Primer to stand 10-15 minutes to wet out and react with the surface.
   c. High pressure rinse the roof with clean water using a minimum 2,000 psi pressure washer keeping the tip within 12" of the surface. Bond-It Wash Primer, in its diluted form, is safe to rinse down drains. Refer to local regulatory agencies for disposal requirements. A squeegee is recommended to push excess water to the drains and accelerate drying. If chalky residue is still present, reapply Bond-It Wash Primer. Surfaces must be completely dry before coating application.
2. If Bond-It Wash Primer is *not* required based on adhesion test:
   a. High pressure wash the roof using a minimum 2,000 psi pressure washer. Detergent or TSP substitute may be used to remove excessive dirt; brushing with a firm bristle broom may be required in some areas.

C. If mildew exists on the membrane surface, remove by washing with a solution of detergent and bleach (1 tablespoon of laundry detergent with 1-2 pints of bleach in 1 gallon of water).

D. Any repairs to the membrane, flashings, penetrations, etc. as determined through inspection, must be completed before coating is applied.
Note: If a structurally sound, well sealed and watertight membrane is not in place, the roof is not acceptable to receive the coating system.

1. Tighten or re-secure all terminations and assure all termination bars and reglets are properly sealed using the appropriate UNIFLEX Roofing Sealant.
2. On mechanically fastened and fully adhered systems, replace backed out fasteners with new stress plates and fasteners. Relocate new fasteners adjacent to original location.

PART 3: EXECUTION

3. Repair loose, open seams, holes and splits with UNIFLEX Seam Tape or UNIFLEX SPE Gray Acrylic Base Coat and Polyester Fabric.
   a. 3 – Course Method Application Rates:
      i. 6” Polyester Fabric – Apply Elastomeric Coating at a total rate of 40 sq.ft./gallon (65 lineal ft./gallon). Be sure to extend coating a minimum 1 ½” beyond the width of the polyester on each side.
      ii. 12” Polyester Fabric – Apply Elastomeric Coating at a total rate of 40 sq.ft./gallon (32 lineal ft./gallon). Be sure to extend coating a minimum 1 ½” beyond the width of the polyester on each side.
4. To seal and reinforce areas around penetrations including vents, stacks, and fans, as well as curbs and drains, use UNIFLEX Seam Tape or UNIFLEX SPE Gray Acrylic Base Coat and Polyester Fabric.
5. Perimeter metal drip edges must be secure and reinforced with Uniflex® SPE Gray Acrylic Base Coat, embedding Polyester Fabric.
6. Apply Uniflex® Slope Bulider to build up low lying areas to eliminate ponding water.
7. In low lying areas, around drains or other areas where potential water accumulation is possible, apply UNIFLEX® SPE Gray Acrylic Base Coat at the rate of 2 gallons per 100 sq. ft. Embed 40" wide Polyester Fabric into the wet coating and immediately apply a second coat of Gray Base Coat on top of the fabric at the rate of 1 gallon per 100 sq. ft. Coating must extend a minimum of 2" beyond the edge of the fabric. If reinforcing wider areas, overlap fabric a minimum of 3".
8. Drain detail:Remove strainer and ring. Embed UNIFLEX® Polyester Fabric into Gray Elastomeric extending a minimum of 12” around perimeter.

3.03 Coating Application

A. General
   1. Inspect preliminary work for problem areas to ensure all preparatory work has been properly completed.

B. Application Method
   1. Apply using airless spray equipment (recommended air pressure of 2,800 psi at the tip).
      a. Spray Tip: Reversible, self-cleaning tip without diffuser pin. Size between .033" with a fan angle of 60° (ex: 633).
      b. Hose Size: At 300' total hose length, use 250' of ¾" → 50' of ½" → 10' swivel whip end ⅜" hose.
      c. General: The longer the hose, the smaller the tip orifice size.
   2. Soft brushes or a ¾" nap roller may be used. May require multiple coats to achieve proper coverage rates.
   3. Allow a minimum of 24 hours between coats to cure prior to recoating.

C. Application Rate
   1. 10 Year Warranty: Apply UNIFLEX SPE Gray Acrylic Base Coat at the rate of 1 ½ gallons per 100 sq. ft. (24 wet mils)
   2. Apply UNIFLEX® Premium Elastomeric White Coating at the rate of 1 ½ gallons per 100 sq. ft. (24 wet mils)
   3. The total minimum dry film thickness shall be 24 mils. Use a wet mil gauge to ensure proper coating requirement.
   4. 15 Year Warranty: Apply a third coat of the UNIFLEX Premium Elastomeric at a rate of 1gal/square.

Fabric Embedded Systems: Refer to appropriate Fabric Embedded System Specification.

D. Optional: Walkway/Traffic Areas
   1. Apply UNIFLEX Premium Gray Elastomeric (41-320) at a rate of 1gal/100 sq.ft. Broadcast granules into wet coating.

3.04 Job Completion

A. Inspect completed application and correct any defects.

B. Manufacturer's representative may inspect the completed roofing system and notify the Contractor of any defects in the application.

C. Clean up all debris, excess materials, and equipment and remove from site.

D. Restrict traffic to only essential personnel. Provide appropriate protection against traffic and construction activities on completed roofs.