

SECTION 07500

APOC GUIDE SPECIFICATION SMOOTH SURFACE ROOF RESTORATION AM-BU-585 10yr

PART I – GENERAL

1.01 RELATED DOCUMENTS

- A. Requirements of Division 1 General Requirements and manufacturers guide specifications.
- B. Related sections – Sheet metal, Carpentry, Insulation and Demolition

1.02 DESCRIPTION

- A. Restoration of existing smooth surface built-up or granule surfaced modified bitumen roof membrane using a high solids, silicone roof coating.
- B. System provides a durable waterproof membrane over existing roof surfaces that have retained structural integrity but have become weathered and deteriorated.

1.03 SUBMITTALS

- A. Sample of polyester material.
- B. Applicator approval letter from the manufacturer
- C. Product literature and flashing details
- D. Manufacturers warranty as required

1.04 QUALITY CONTROL

- A. Comply with manufacturer's installation instructions and manufacturer's specification binder for all phases of work including substrate preparation, application of materials and protection of adjacent surfaces.
- B. All substrates must be peel tested for adhesion strength and those results provided to APOC for analysis.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Package labels must be clearly visible on pallets
- B. Store all roll goods in a dry, protected environment
- C. Store coatings and mastics at recommended temperatures appropriate for time of year materials are being installed. Product must be stored at 50°>110°F. Polyester must be kept dry.

1.06 PROJECT CONDITIONS

- A. Temperature must be 40°F and rising
- B. Roof surface must be dry with no precipitation in the forecast for the next 8 hours.
- C. Contractor must follow local, state and federal codes and safety requirements

1.07 WARRANTY

- A. Warranty issued shall be for coating application only. This warranty does not cover the existing roof, structural deck or any labor associated with this project.
- B. Warranties will be issued for completed projects on entire building.
- C. For M&L Warranties, all details including job site photographs, Intent to install form and specifications must be submitted to APOC via Fax to (813) 342-3823 7 days prior to the start of the roofing project.

PART II – PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. APOC Roofing Systems

2.02 MATERIALS

- A. Roof Restoration System: AM-BU-585 10yr
- B. Material quantities:
 - APOC #298 A&B primer coat (optional) 1/4 gals per sq
 - APOC #585 base coat 1.25 gals per sq
 - APOC #585 finish coat 1.25 gals per sq
- C. APOC #483 polyester for flashing reinforcement
- D. APOC #515 Liquid Flash for flashing and details
- E. APOC INCREDIBLE FleeceTop tape for flashing and details

- F. APOC #585 ArmorFlex White Roof Coating applied at the rate of 1.25 gallons per square in two coats totaling 2.5 gallons per square.

Weight	10.7 lbs/gallon
Reflectivity	.87
Solids by weight	96 + or - 2%
Solids by volume	96 + or - 2%
Elongation	210%
Tensile Strength	450 psi
Permeability	5 perms
Cure time (50% Relative Humidity, 70°F)	2-8 hours (approx)
Application temperatures	40°F and rising

PART III – EXECUTION

3.01 INSPECTION

- A. Evaluate condition of existing BUR or Mod Bit membrane system. Perform total inspection of all roof areas.
- B. Nondestructive testing (Infra-red photography and/or Tramex tool and onsite inspection) shall be performed and verified with actual roof cores. A roof plan shall be made to show all wet areas, which require replacement of wet insulation and damaged membrane.
- C. Deck replacement – as the restoration progresses deteriorated deck shall be removed and replaced with like kind and quality material.
- D. All roofs must maintain positive drainage. Ponding water is defined by the NRCA as “water that remains more than 48 hours after precipitation has stopped.” Drainage can sometimes be improved by adding drains, changing the slope of the structural deck or removing existing insulation and roof membrane and reinstalling a tapered insulation and new roof membrane.

3.02 WEATHER CONDITIONS & TEMPERATURE REQUIREMENTS

- A. Surface and air temperatures must be 40°F and rising before applying material and no higher than 110°F.
- B. Roof surface must be dry with no precipitation in the forecast for the next 8 hours. Start calculation of 8-hour dry time after all work is completed. Conditions with a relative humidity higher than 55% will require additional drying time. Low humidity, low temperatures, cloud cover and calm air will all slow the curing process. High humidity, high temperatures, direct sun and wind will speed the curing process.

- C. Extra caution is needed when applying material in windy conditions. Never spray material with excessive wind. Contractor should constantly monitor wind direction to prevent over-spray. If winds become excessive, spraying should stop.
- D. Deleted.

3.03 SURFACE PREPARATION & REPAIRS

- A. Surface shall be swept clean of all debris and power washed before making repairs. Surface must be completely dry before applying repair products or coatings.
- B. Repair all splits and blisters in membrane: embed two plies of APOC #483 polyester in an application of APOC #515 Liquid Flash (min. 1/8" thick layer per ply). Repair any wrinkles, folds or fishmouths by embedding one ply of APOC #483 polyester in APOC #515 and allow for a full cure.
- C. Abandoned pipes and vent stacks should be removed and holes filled in and roofed with like decking, insulation and membrane.
- D. Deteriorated pipe and vent flashing should be replaced with new 24-gauge galvanized flashings or appropriate metal flashing boots.
- E. Existing, sound pipes and vents shall be cleaned and resealed with APOC #515 LiquidFlash sealant using a wrap and target reinforcement of APOC #483 polyester or APOC Incredible Fleece Top tape.
- F. Curbs, base flashing, and wall flashing up to 12" high: Including Skylights, HVAC, fan, evaporator, equipment and pipe support curbs. Embed APOC #483 polyester in an application of APOC #515 LiquidFlash and allow to completely cure. Polyester (min. 6" width) shall extend a minimum of 2" past the cant on the horizontal roof surface and continue a minimum of 1" past the top of the cant. Brush in the polyester to assure no voids, wrinkles or fishmouths.
- G. Metal edge: Re-secure loose metal, clean and allow to completely dry. Apply six inch wide APOC Incredible Fleece Top tape and coat with APOC #515 LiquidFlash.
- H. Scuppers: clean, let dry and embed 6" APOC #483 polyester reinforcement in APOC #515 LiquidFlash.
- I. Josam Type Cast Iron Drains: Remove flashing ring, clean 4'X4' area and allow to completely dry. Apply and roll in a layer of APOC Incredible Fleece Top tape over the joint at the drain bowl. Extend tape a minimum of 1" on to the cast iron drain bowl and 3" on to the surrounding insulation or existing membrane. Embed a 2'X2' piece of APOC #483 Polyester Reinforcement in a layer of

APOC #515 LiquidFlash and extend past drain ring down into the drain bowl. Apply a top layer of APOC #515 LiquidFlash over the polyester reinforcement and allow to fully cure overnight.

Reinstall flashing ring. Work with owner's rep to arrange for water testing of drains and drainpipes.

- J. Pitch pans: clean all exposed metal inside and out, fill and trowel to create a slight slope with APOC #515 LiquidFlash sealant. New or replacement pitch pans may be filled with quick drying concrete grout to two inches from the top, then fill with APOC #515 LiquidFlash sealant .
- K. Wood blocking: remove and replace existing wood blocking with redwood or pressure treated 2X4 lumber for small pipes and 4X4 blocking for small HVAC units. Install blocks in APOC #515 LiquidFlash sealant on top of ½" Dek-Top Walkway Pads. Install new restoration membrane before installing roof walkway pads. For large horizontal gas lines and electrical conduit (2" diameter and larger), satellite dishes over 3' in diameter and HVAC units over 200 lbs. consult a structural engineer to design appropriate support system. Flash new steel supports with APOC #515 LiquidFlash sealant and APOC #483 polyester reinforcement using a wrap and target method to assure a 5 course reinforcement at the base of the penetration.
- L. Valleys and Waterways: Install granule surfaced modified cap in all valleys and waterways. Use installation method appropriate to the project, building structure and valley size. Follow NRCA guidelines for modified bitumen as published in the low slope specifications of the Roofing and Waterproofing Manual. Optional: Embed one ply of APOC #483 polyester in a 3 gal/sq application of APOC #585 and allow to fully cure.
- M. Gutters: Re-secure gutter joints, clean and prime joints using APOC Incredible primer. Seal joints by applying APOC Incredible Fleece Top tape. Coat tape and seal tape edges with APOC #515 LiquidFlash. Deteriorated sections of metal gutter must be replaced. Rotted concealed wood gutters must be repaired and relined with a multi ply modified bitumen membrane. Water test gutters after all repairs have been completed.
- N. Metal Counter flashing: Raise or remove existing metal counter flashing. Install specified base flashing. Reinstall metal so that base flashing is counter flashed. On masonry walls rake out the reglet joint and re-caulk with an APOC approved sealant to materials. On structural concrete, reseal between metal and concrete wall using an APOC approved sealant. On curbed HVAC units, reinstall metal counter flashing and seal between the unit and the counter flashing metal with a self adhering, compressible foam tape.

- O. Expansion Joints and Control Joints: use curb flashing repair methods on the joint curbs only. Do not coat expansion or control joints with curb flashing materials. If existing expansion joint materials are repairable use materials and methods recommended by the original manufacturer of the joint. Replace the joint if deteriorated with a new expansion joint system, which will counter flash the APOC base flashing.

3.04 MEMBRANE APPLICATION

- A. Protection and start-up procedures
 1. Prior to spray work, post notices a minimum of 48 hours around building and parking lots. Protect adjacent surfaces where product is not to be applied using masking tape, plastic / paper sheets, stretch wrap, tarps or plywood, which ever is appropriate.
 2. Owner should be notified of start times so that fresh air intakes may be sealed off and or HVAC units shut down.
 3. Contractor must remove drain screens and seal the drainpipe to prevent plugging of drain during the coating operation. Unplug drains and reinstall screens after spray operation has been completed.
- B. Prime coat (optional). Mix equal parts APOC #298 A with APOC #298 B and apply with roller at the rate of 1/4 gal per square. Allow a minimum of 4 hours to cure before applying silicone coating. Do not install if temperature is under 40°F. Do not install if rain is forecasted within 8 hours of application.
- C. Base Coat: After prime coat has cured, apply APOC #585 High solids silicone roof coating at the rate of 1.25 gallons per square.
- D. Finish Coat: Wait a minimum of 4 hours (and not more than 24 hours) depending on drying conditions and then apply a second coat of APOC #585 high solids silicone roof coating at the rate of 1.25 gallons per square in a crosshatch pattern, perpendicular to the first coat, ensuring a smooth and continuous film over the surface. Total coverage rate shall be 2.5 gallons per square
- E. Note: NEVER apply to wet or damp or rusted surfaces. Surfaces should be completely cleaned before application. Low humidity may extend curing periods. All repairs must use compatible products.

3.05 JOB SITE CLEAN UP

- A. Remove masking and protection
- B. Notify owner spray operation is complete so HVAC vents can be opened and units restarted.
- C. Remove all roofing related trash and debris from jobsite.
- D. Dispose of containers in accordance with local regulations.

Note: APOC does not practice Engineering or Architecture. Any review of the buildings construction or inspection of roof plans or inspection of the building's structural roof deck by APOC representatives shall not constitute any warranty by APOC of such plans, specifications or construction. Any roof inspections are solely for the benefit of APOC.