

SECTION 07590

Fluid Applied Elastomeric Latex Roof System for Aged
Modified Bitumen Membrane

Modified Bitumen Coating System

Using WAC II Cleaner,
Conklin Tack Coat and
Rapid Roof III[®] Coating

PART 1 – GENERAL

1.01 Description

- A. Work included: all labor, materials, equipment and accessories to furnish and install a fluid applied Rapid Roof III® elastomeric latex roof membrane over aged, fully-adhered, smooth or granulated modified bitumen.
- B. Related work specified elsewhere:
 - 1. Prefabricated roof specialties
 - 2. Roof accessories

1.02 Quality Assurance

- A. Certification of roofing system: (Applicable for manufacturer's limited joint warranty only.) Upon completion of the roofing system, an inspection shall be made by the applicator to ascertain that the roofing system has been installed according to manufacturer's published specifications and details.
- B. Certifications of materials: Manufacturer of Rapid Roof III, WAC II and Conklin Tack Coat shall furnish, upon written request, notarized certification that the material furnished meets the physical properties set forth in this specification.
- C. Requirements of regulatory agencies: Furnish and install all roofing materials required to meet regulatory agencies and approved building codes. If changes are required to drawings or specifications in order to meet requirements of regulatory agencies specified or to provide guarantee specified, cost of such changes shall be included. Any changes to drawings or specifications shall be approved by the architect before work commences.

1.03 Submittals

- A. Shop drawings: Shall include outline of roof and roof size, location and type of penetrations, perimeter and penetration details, special details, location of anchors and bill of materials.
- B. Product data: Shall include manufacturer's product specifications and installation instructions.
- C. Certified test: Submit copies of certified test reports that indicate compliance with the specified minimum physical properties and performance requirements.

1.04 Product Delivery, Storage and Handling

- A. Delivery of materials:
 - 1. Membrane materials shall be delivered to job site in manufacturer's original label.
 - 2. Related miscellaneous items shall be delivered to job site in new condition, and where applicable, properly labeled.
- B. Storage of materials:
 - 1. Store materials in accordance with manufacturer's recommendations.
 - 2. Store Rapid Roof III, Conklin Tack Coat and WAC II materials so they will not freeze.
- C. Handling and protection of materials:
 - 1. Meet requirements of manufacturer's recommendations for handling and protection of materials during installation.
 - 2. Handle materials so that foreign materials do not contaminate them.
- D. Damaged materials: Contaminated or damaged materials shall not be used in the installation and shall be removed from site immediately upon discovery.

E. SAFETY

WAC II – DANGER: CORROSIVE. VAPOR HARMFUL. WILL CAUSE BURNS TO EYES AND SKIN. HARMFUL OR FATAL IF SWALLOWED – CONTACT A PHYSICIAN IMMEDIATELY. Avoid contact with plants, shrubs and grass. Use only in well-ventilated areas.

Tack Coat and Rapid Roof III – CAUTION: MAY CAUSE EYE, SKIN AND RESPIRATORY IRRITATION. HARMFUL IF SWALLOWED. Use only in well-ventilated areas and use a dust mask.

With all of the above products **KEEP OUT OF THE REACH OF CHILDREN.**

General First Aid: Eyes – immediately flush with plenty of water, and continue rinsing for at least 15 minutes and seek immediate medical attention. Skin – wash thoroughly with large amounts of soap and water, followed by a thorough rinse. Ingestion – if swallowed, **DO NOT INDUCE VOMITING**, dilute with two glasses of water or milk and immediately contact a poison control center or physician for further instructions. Inhalation – immediately move to fresh air, and give oxygen, if needed. Seek medical attention if respiratory tract symptoms persist.

For U.S. Health Hazard Information, call 1-888-786-0974.

1.05 Job Conditions

A. Environmental requirements:

1. General requirements: Application of membrane shall not proceed unless environmental conditions are suitable as prescribed by the manufacturer of the materials being supplied. Applicator shall be held responsible for contacting manufacturers of materials being applied and verifying manufacturer's requirements for environmental conditions.
 2. Application temperature requirements:
 - a. Ambient: Application shall not proceed when ambient temperature is less than 40 F or greater than 100 F.
 - b. Surface: Application shall not proceed when surface temperature is less than 40 F or greater than 120 F.
- B. Protection of unrelated work: Take all measures necessary to protect unrelated work and surfaces from cleaner, primer and/or coating over spray.

1.06 Specific product guarantee

- A. Conklin Company's guarantee to the Independent Business Owner: Conklin Company Inc. guarantees for a period of five (5) years from the date of purchase that Rapid Roof III, WAC II and Conklin Tack Coat are free of any chemical defects in manufacturing. This guarantee is limited to replacement of products at the expense of the Company, when such product proves to be defective in manufacture. Among other things, this guarantee does not apply to coverage failures due to improper application. Proper application includes but is not limited to the requirements that the product top coat must be applied in a continuous, unbroken (closed seal) film of dry thickness no less than 12 mils. This company shall not be liable for incidental or consequential damages from any cause whatsoever. THIS WARRANTY IS IN LIEU OF THE IMPLIED WARRANTY OF MERCHANTABILITY AND ALL OTHER WARRANTIES EXPRESSED OR IMPLIED. This guarantee applies only to the Conklin IBO who purchases the product and cannot be extended to any other person.
- B. Optional manufacturer/contractor warranty: Please consult with the manufacturer for details and availability of warranty program. Available for waterproofing only.

PART 2 – PRODUCTS

2.01 Fluid Applied Elastomeric Latex Roof Membrane

- A. Acceptable manufacturer: Conklin Company Inc., Shakopee, Minn., "Rapid Roof III," "WAC II," "Conklin Tack Coat."
- B. Conklin Tack Coat is a water soluble modified alkyd specifically designed to improve the adhesion of Conklin Rapid Roof III acrylic coating to clean, aged modified bitumen membrane.
- C. WAC II, a blend of special surfactants, is a cleaner for weathered acrylic coatings, single-ply and aged modified bitumen membranes.
- D. Rapid Roof III is an acrylic latex, elastomeric, monolithic roof coating system designed for use on aged modified bitumen membrane, consisting of a hi-hide white top coat.

2.01 Miscellaneous Materials

- A. Caulking: White, bronze or gray Kwik Kaulk® acrylic caulking compound or Conklin 360-S® urethane sealant as approved by membrane manufacturer.

PART 3 – EXECUTION

3.01 Inspection

- A. Inspection of aged modified bitumen Membrane: Membrane shall be applied only to aged modified bitumen membrane which meets the following requirements:
1. Roof surface shall be free of ponding water. A roof surface which has 36 or more square feet of water in any area, ¼ inch deep or more, 48 hours after a rain, shall be considered unacceptable. All water shall drain off the roof. Small "bird baths" cannot account for more than five percent of the entire roof surface.
 2. Contains no blisters or tunneling.
 3. Is securely bonded to the substrate by the use of asphalt hot mopping on cold adhesive.
 4. Is clean, dry, free of contaminants and capable of accepting membrane.
 5. Is free of pinholes and voids.

3.02 Preparation

- A. Cleaning: Clean surface with Conklin's WAC II so it is free of all contaminants that could affect the bond of the tack coat to the existing modified bitumen membrane.

3.03 Application

A. Application method: Rapid Roof III top coat shall be applied by airless spray or 3/4 inch nap roller.

B. Application rate:

- 1. Top coat: Absolute minimum application rate for top coat shall be 1.9* gallons per square. The dry mil thickness of Rapid Roof III top coat shall be 12.0 (24 wet mils).

** To achieve minimum requirement, the application rates listed include 15% for application loss and 10% to compensate for surface texture.*

C. Application Procedure (modified bitumen water-proofing system)

- 1. Apply WAC II cleaner, at full strength, to the modified bitumen membrane at a rate of 400–500 square feet per gallon using a portable sprayer or airless spray equipment equipped with a .019 to .022 spray tip.
- 2. Allow cleaner to remain on roof surface at least 20 minutes prior to water rinse, i.e. with high-pressure spray. Heavily soiled areas may require additional cleaning and/or use of a floor broom or stiff bristle brush. Waste or rinse water may be harmful to fish and aquatic plants. Dispose of in accordance with local, state and federal regulations.
- 3. Make sure to remove all residues and let roof surface dry thoroughly prior to application of primer.
- 4. In situations where the modified bitumen membrane has pulled away from or has “bridged” transition areas, such as parapet walls and protrusions, cut the membrane so that it can lie in a flat, relaxed state. Mechanically fasten the cut edge of the modified bitumen with Conklin-approved fasteners and 3 inch plates. In the areas where the shrunken membrane no longer covers the roof surface, determine that the substrate is acceptable for application of Conklin fabric reinforced system. If not, make necessary corrections to Conklin approved substrate. Then, reinforce those areas using Conklin Spunflex fabric and acrylic coatings. (See fabric procedure for modified bitumen seams)
- 5. Apply Conklin Tack Coat primer at a rate of 250–300 square feet per gallon with a brush, roller or spray equipment. The primer will appear light gray in color upon application and will dry to a black color. (Do NOT proceed until primer is completely dry and clear).
- 6. Primer dry time is approximately 2–8 hours depending on temperature and humidity.
- 7. For modified bitumen seams: Apply a 6 inch wide strip of Rapid Roof III base or top coat at a rate of 1.5 gallons per square and immediately imbed the 4 inch wide Spunflex polyester fabric into the wet coating with a brush or roller, making sure the fabric is relaxed, flat and wrinkle-free by brushing or rolling from center out at 45° angles.
- 8. After the application of coating and fabric, immediately apply a second coat of Rapid Roof III base or top coat at a rate of .5 gallons per square, for a total of 2.0 gallons per square (coating, fabric and coating).
- 9. After the coating and fabric application has dried completely, apply Rapid Roof III top coat over the entire field of the roof at rate of 1.9 gallons per square. The top coat dry mil thickness must be no less than 12 dry mils.
- 10. Develop a systematic method for application of coating to surface.
- 11. Allow each application to dry thoroughly prior to additional applications. Do not allow less than 12 hours drying time between coats, unless otherwise specified.
- 12. Do not apply coating in excess of 2.0 gallons per square per coat.
- 13. Backrolling top coat is optional after applications by airless spray.

** To achieve minimum requirement, the application rates listed include 15% for application loss and 10% to compensate for surface texture.*

D. Application Procedure (reflective coating – no water-proofing).

- 1. Follow all procedures set forth in the waterproofing application with the exception of the coating and fabric applications for modified bitumen seams.
- 2. This system will offer greater reflective value, but will not waterproof the modified bitumen membrane.

E. Service Walkways: Where service walkways are indicated on the drawings, provide the following additional work:

- 1. Walkways shall be constructed following complete drying of roof membrane system.
- 2. Mark off area and apply an additional base or top coat of Rapid Roof III at a rate of 1.5 gallons per square. Embed 38 inch Spunflex fabric and immediately apply Rapid Roof III base or top coat at 0.5 gallons per square and allow to dry.
- 3. Apply Rapid Roof III top coat at 1.9 gallon per square and allow to dry completely.
- 4. Yellow or gray spaghetti walkway pads are also available through Conklin Company Inc. for use in these traffic areas.

END OF SECTION



Conklin Company Inc.
Building Products Division
Roofing Systems
Specialty Coatings

Independent Business Owner: