

SECTION 07 13 26

SELF ADHERING SHEET WATERPROOFING FOR USE WITH ASPHALTIC CEMENT OVERLAYMENTS

Part 1 - GENERAL

1.01 SECTION INCLUDES:

Installation of a 70 mil pre-pave sheet membrane waterproofing system on surfaces indicated on drawings, consisting of preparation of existing and repaired concrete surfaces, sealing of cracks and joints.

1.02 RELATED SECTIONS

- A. Section 03 15 00 – Concrete Accessories
- B. Section 03 30 00 - Cast-In-Place Concrete
- C. Section 07 90 00 – Joint Sealers
- D. Division 30 - Civil
- E. Division 25 – Electrical
- F. Division 20 - Mechanical

1.03 REFERENCES

- A. ASTM applicable standards and test methods
- B. ASTM E 154 Puncture Resistance
- C. ASTM E 96 (B) Water Vapor Transmission of Materials
- D. ASTM D 882 Test Method for Tensile Properties
- E. UL 790 Tests for Fire Resistance of Roof Covering Materials

1.04 SYSTEM DESCRIPTION

Product provided by this Section is a self-adhesive membrane of not less than 70 mils thickness, consisting of a rubberized asphalt membrane laminated to a high strength, heat resistant woven polypropylene mesh.

1.05 SUBMITTALS

- A. General: Submit in accordance with Section 01300.
- B. Product Data: Submit manufacturer's product literature and installation instructions.
- C. Subcontractor's approval by Manufacturer: Submit document stating manufacturer's acceptance of subcontractor as an Approved Applicator for the specified materials.
- D. Warranty: Submit a sample warranty identifying the terms and conditions stated in Section 1.7.

1.06 QUALITY ASSURANCE

- A. Applicator Qualifications: Applicator shall be experienced in applying the same or similar materials and shall be specifically approved in writing by the membrane manufacturer.
- B. Regulatory Requirements: Comply with applicable codes, regulations, ordinances, and laws regarding use and application of products that contain volatile organic compounds (VOC).
- C. Pre-Application Conference: Prior to beginning work, convene a conference to review conditions, installation procedures, schedules and coordination with other work.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in original, factory-sealed, unopened containers bearing manufacturer's name and label intact and legible with following information.
 - 1. Name of material.
 - 2. Manufacturer's stock number and date of manufacturer.
 - 3. Material safety data sheet.
- B. Store membrane, mastic and primer in a protected area out of direct sunlight. Protect from rain and physical damage.

1.08 WASTE MANAGEMENT AND DISPOSAL

- A. Separate and recycle waste materials in accordance with Section 01 74 19 – Construction Waste Management and Disposal, and with the Waste Reduction Work Plan.
- B. Place materials defined as hazardous or toxic waste in designated containers.
- C. Ensure emptied containers are stored safely

1.09 PROJECT CONDITIONS

- A. Do not apply CCW-711 Pre-Pave Sheet Membrane if temperature is less than 25 degrees F. or to a damp, frozen or contaminated surface.
- B. Coordinate waterproofing work with other trades. The applicator shall have sole right of access to the specified areas for the time needed to complete the application.
- C. Protect adjoining surfaces not to be waterproofed against damage or soiling. Protect plants, vegetation and animals which might be affected by waterproofing operations.
- D. Warn personnel against breathing of vapors and contact of material with skin or eyes. Wear applicable protective clothing and respiratory protection gear.
- E. Keep flammable products away from spark or flame. Do not allow the use of spark producing equipment during application and until all vapors have dissipated. Post "NO SMOKING" signs.
- F. Maintain work area in a neat and orderly condition, removing empty containers, rags, and rubbish daily from the site.

1.10 WARRANTIES

Provide a written Manufacturer's material warranty agreeing that for a five (5) year period the system will not leak as a result of deterioration of the system or due to properly treated cracks in the substrate less than 1/16 inch in width.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

Provide CCW 711 Pre Pave Sheet Membrane Waterproofing as manufactured and supplied by Carlisle Coatings and Waterproofing Incorporated, 900 Hensley Lane, Wylie TX 75098, 1-800-527-7092 Fax: (972)442-0076. Website <http://www.carlisle-ccw.com>

2.02 PRODUCTS

A. Pre-Pave Sheet Membrane Waterproofing System: Shall be CCW-711 is a 70 mil minimum thick composition consisting of a self adhering rubberized asphalt membrane laminated to a high strength, heat resistant woven polypropylene mesh, and shall meet or exceed the following requirements:

1. Thickness: 70 mils
2. Tensile Strength: 53 lb/in ASTM D 882
3. Elongation: 350% ASTM D 882
4. Permeance: .05 perms ASTM E96 (B)
5. Pliability: Passes @ -25% .063" mandrel ASTM D 146 180 degree bend
6. Puncture: 200 lb (min) ASTM E 154

2.03 ACCESSORY PRODUCTS

- A. Surface Primer: Shall be CCW-550 or CCW-702 Primer.
- B. Mastic: Shall be CCW-704 Mastic.
- C. Sealants: Shall be CCW-LM800XL or CCW-201 two component Polyurethane Sealant.
- D. Backing Rod: Shall be closed-cell polyethylene foam rod.

Part 3 - EXECUTION

3.01 INSPECTION

- A. Before any waterproofing work is started the waterproofing applicator shall thoroughly examine all surfaces for any deficiencies. Should any deficiencies exist, the architect, owner, or general contractor shall be notified in writing and corrections made.
- B. Condition of Surfaces:
 1. Prepare surface according to accepted repaving practices.
 2. Concrete surfaces shall be of sound structural grade, 3500 psi minimum, and shall have a wood float or fine broom finish, free of fins, ridges, voids or entrained air holes.

3. Concrete shall be cured by water curing method. Curing compounds must be of the pure sodium silicate type and be approved by the Carlisle representative.
4. Concrete shall be cured at least 7 days and shall be sloped for proper drainage.
5. Voids, rock pockets and excessively rough surfaces shall be repaired with approved non-shrink grout or ground to match the unrepaired areas.
6. Surfaces at cold joints shall be on the same plane.

3.02 SURFACE PREPARATION

- A. The surface must be thoroughly clean, dry and free from any surface contaminants or cleaning residue that may harmfully affect the adhesion of the membrane.
- B. Surface shall have a smooth finish and be free of voids, spalls, sharp protrusions, loose aggregate and form release agents. Curing agents containing wax, oil or pigment must not be used.
- C. Cracks greater than 3/8" in width should be filled with CCW-201 or CCW-LM800XL.
- D. Detail expansion joints per manufacturer's recommendation.
- E. Allow all sealant to cure at least overnight.
- F. In the event of rain, the surface must be allowed to dry before primer is applied.
- G. For optimum results, CCW-711 should be applied when air and surface temperatures are above 40 degrees F.

3.03 APPLICATION

- A. Apply primer to all surfaces to receive CCW-711 Pre-Pave Sheet Membrane at a rate of 350-450 sq. ft. per gallon. Avoid puddles. Allow primer to dry for 1 hour minimum, 8 hours maximum. Membrane will not properly adhere to wet primer.
- B. Position CCW-711 roll to span the pavement.
- C. Unroll CCW-711 by peeling away the release liner.
- D. Apply CCW-711 Pre-Pave Sheet Membrane from low to high point, in a shingle fashion so that the laps will shed water. Overlap all edges at least 2-1/2", placed such that overlaps are in the direction of the paving. End laps shall be staggered. Place sheet membrane carefully so as to avoid wrinkles and fish-mouths.
- E. Before opening to traffic or before paving, pneumatically roll the area to ensure good contact and adhesion with the existing surface. Equipment must be continuously inspected to ensure tracks or tires are free of burrs, stones or sharp projections which could damage the membrane.

3.04 FLOOD TEST (Optional)

- A. Plug drains and provide barriers necessary to contain flood water.
- B. Flood surface with 2" head of water for 24 hours. Inspect for leaks and repair membrane if leaks are found. Retest after making repairs. Allow to dry thoroughly before beginning paving operations.

3.05 PAVING INSTALLATION

- A. Repairs: Following application, inspect all membrane for tears, punctures, fishmouths, air bubbles or voids due to misalignment at seams. Remove damaged membrane. Prime exposed concrete and allow primer to dry. Apply new section of CCW-711 Pre-Pave Membrane to primed concrete extending onto adhered membrane 6" on all sides. Firmly roll repair section to ensure a good seal. Apply CCW-704 Mastic to terminating edges of patch.
- B. Slit fishmouths and overlap the edges. Place CCW-711 Pre-Pave Membrane over the repair and extend 6" in all directions. Firmly roll repair section to ensure a good seal. Apply CCW-704 Mastic to the terminating edges of patch.
- C. Asphaltic overlayment or tack coat must not be applied if the CCW-711 Pre-Pave Sheet Membrane is wet. Flat track or pneumatic tire equipment may be used, however flat track equipment is preferred. Equipment must be continuously inspected to ensure tracks are free of burrs, stones or sharp projections which could damage the membrane.
- D. Prior to applying overlayment, spray anionic asphalt emulsion (or equal) tack coat over mesh. CCW-711 Pre-Pave Sheet Membrane should be covered over with asphaltic overlayment as soon as possible. The temperature of the asphaltic overlayment at the point of application shall be 275°F minimum, 325°F maximum. Asphaltic overlayment shall be compacted to a minimum of 2 inch thick, at 275° - 285°F.

End of Section