

**SECTION 07 14 00
FLUID APPLIED WATERPROOFING**

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. The provisions of the General Conditions, Supplementary Conditions, and the Sections included under Division 1, General Requirements, are included as a part of this Section.

1.2 SECTION INCLUDES

- A. The Work required under this Section consists of fluid applied waterproofing and related items necessary to complete the Work, including:
- B. Fluid applied rubberized asphalt membrane waterproofing
- C. Cant strips
- D. Protective covering

1.3 REFERENCES

- A. ASTM C836/C836M – Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course
- B. ASTM D412 – Standard Test Methods for Vulcanized rubber and Thermoplastic Elastomers - Tension
- C. ASTM D624 – Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomer
- D. ASTM D746 – Standard Test Method for Brittleness Temperature of Plastic and Elastomers by Impact
- E. ASTM D822 – Standard Practice for Filtered Open-Flame Carbon Arc Exposures of Paint and Related Coatings
- F. ASTM D1004 – Standard Test Method for Tear Resistance (Graves Tear) of Plastic Film and Sheeting
- G. ASTM D2240 – Standard Test Method for Rubber Property - Durometer Hardness
- H. ASTM D3468 – Standard Specification for Liquid-Applied Neoprene and Chlorosulfonated Polyethylene Used in Roofing and Waterproofing
- I. ASTM E96/E96M – Standard Test Methods for Water Vapor Transmission of Materials
- J. NRCA (National Roofing Contractors Association) - Waterproofing Manual
- K. FBC - Florida Building Code

1.4 PERFORMANCE REQUIREMENTS

- A. Waterproofing System: A system capable of resisting water head pressure and from allowing moisture migration into interior of the building

1.5 SUBMITTALS FOR REVIEW

- A. Section 01 33 00 - Submittals Procedures
- B. Product Data: Provide data for surface conditioner, flexible flashings, joint cover sheet, and joint and crack sealants with temperature range for application of waterproofing membrane.
- C. Shop Drawings: Indicate special joint or termination conditions and conditions of interface with other materials, if applicable.
- D. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.

1.6 SUBMITTALS AT PROJECT CLOSEOUT

- A. Section 01 77 11 - Contract Closeout
- B. Warranty: Submit completed manufacturer warranty forms in Owner's name and registered with manufacturer.

The School District of Palm Beach County

Project Name

SDPBC Project No.

1.7 QUALITY ASSURANCE

- A. Perform Work in accordance with NRCA Waterproofing Manual.
- B. Waterproofing Manual Manufacturer: Company specializing in waterproofing membrane with minimum 5-years of experience
- C. Applicator: Company specializing in performing the work of this section with minimum 5-year documented experience and approved by manufacturer.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. Maintain ambient temperatures above 40° F for 24 hours before and during application and until liquid or mastic accessories have cured.

1.9 WARRANTY

- A. Section 01 77 00 - Contract Closeout
- B. Correct defective Work within a five-year period after Date of Substantial Completion.
- C. Provide 5-year manufacturer warranty for waterproofing failing to resist penetration of water.
- D. For warranty repair work, remove and replace materials concealing waterproofing.

PART 2 PRODUCTS

2.1 MEMBRANE COMPOUND MATERIAL

- A. Waterproofing Membrane: Elastomeric rubberized asphaltic compound, hot poured, quick setting

2.2 ACCESSORIES

- A. Surface Conditioner: Compatible with membrane compound; as required by membrane manufacturer
- B. Elastic Flashings: Neoprene as recommended by membrane manufacturer
- C. Joint Cover Sheet: Elastic sheet material designed for and compatible with membrane
- D. Cant Strips: Pre-molded composition material.
- E. Joint and Crack Sealant: As required by membrane manufacturer.
- F. Back-up Material: Butyl rod
- G. Counter Flashings: Mil finish aluminum.

2.3 PROTECTIVE MATERIALS

- A. Separation Sheet: Sheet polyethylene, minimum 6-mil thick

PART 3 EXECUTION

3.1 EXAMINATION

- A. Section 01 31 00 – Project Management and Coordination: Verify existing conditions before starting work
- B. Verify substrate surfaces are free of frozen matter, dampness, loose particles, cracks, pits, projections, penetrations, or foreign matter detrimental to adhesion or application of waterproofing system.
- C. Verify that substrate surfaces are smooth, free of honeycomb or pitting, and not detrimental to full contact bond of waterproofing materials.
- D. Verify items, which penetrate surfaces receiving waterproofing, are securely installed.

3.2 PREPARATION

- A. Protect adjacent surfaces not designated to receive waterproofing.
- B. Clean and prepare surfaces to receive waterproofing in accordance with manufacturer's instructions; vacuum substrate clean.
- C. Do not apply waterproofing to surfaces unacceptable to manufacturer or applicator.

- D. Seal cracks and joints with sealant materials using depth to width ratio as recommended by sealant manufacturer.

3.3 APPLICATION

- A. Maintain ambient temperatures above 40° F for 24 hours before and during application and until liquid or mastic accessories have cured.
- B. Apply surface conditioner at a rate recommended by manufacturer.
 - 1. Protect conditioner from rain or frost until dry.
- C. Apply 12" wide strip of joint cover sheet over cracks, non-working joints, and expansion joints over 1/16" but not exceeding 1/2" in width.
- D. At expansion joints from 1/2" to 1" in width, loop cover sheet down into joint between 1 1/4" and 1 3/4".
 - 1. Extend sheet 6" on either side of expansion joint.
- E. Center cover sheet over crack or joints. Roll sheet material onto 1/8" coating of waterproofing material
 - 1. Apply second coat over sheet extending minimum of 6" beyond sheet edges.
 - 2. Apply this procedure to expansion joints between horizontal and vertical surfaces.
- F. Apply waterproofing material in accordance with manufacturer's instructions.
- G. Extend membrane over cants and up intersecting surfaces at membrane perimeter minimum 6" above horizontal surface for first ply and 6" at subsequent plies laid in shingle fashion.
- H. Install cant strips at inside corners.
- I. Apply extra thickness of waterproofing material at corners, intersections, angles and over joints.
- J. Seal items protruding to or penetrating through membrane and install counter flashing membrane material.
- K. Extend waterproofing material and flexible flashing into drain clamp flange.
 - 1. Apply adequate coating of liquid membrane to assure clamp ring seal.
 - 2. Coordinate with drain installation.
- L. Install membrane flashings and seal into waterproofing material.
- M. Conform to NRCA - Waterproofing Manual drawing details.

3.4 FIELD QUALITY CONTROL

- A. Section 01 40 00 - Quality Control: Field inspection, testing, adjusting, and balancing
- B. On completion of membrane installation, dam installation area as directed by A/E in preparation for flood testing.
- C. Flood to minimum depth of one-inch with clean water; after 48 hours, verify no leaks with A/E.
- D. If leaking is found, remove water, patch leaking areas with new waterproofing materials as directed by A/E; repeat flood test.
 - 1. Repair all damage to building caused by the leak.
- E. When area is proven watertight, drain water, and remove dam.

3.5 PROTECTION OF FINISHED WORK

- A. Section 01 77 00 - Contract Closeout: Protecting installed work.
- B. Do not permit traffic over unprotected or uncovered membrane.
- C. After membrane has cooled, apply separation sheet, and lap joints to ensure complete coverage.

END OF SECTION