

SECTION 07 13 26 - SELF-ADHERING SHEET WATERPROOFING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Modified bituminous sheet waterproofing, fabric reinforced and auxiliary materials.
- B. Related Sections include the following:
 - 1. Division 07 Section "Joint Sealants" for joint-sealant materials and installation.

1.3 REFERENCES

- 1. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers - Tension.
- 2. ASTM D570 Standard Test Method for Water Absorption of Plastics.
- 3. ASTM D6135 Standard Practice for Application of Self-Adhering Modified Bituminous Waterproofing
- 4. ASTM E96 Standard Test Methods for Water Vapor Transmission of Materials.
- 5. ASTM E154 Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.

1.4 SUBMITTALS

- A. Product Data: Include manufacturer's written instructions for evaluating, preparing, and treating substrate, technical data, and tested physical and performance properties of waterproofing.
- B. Samples: For the following products:
 - 1. 6-by-6-inch square of waterproofing sheet.
- C. LEED Documentation:
 - 1. Product Data for Credits MR 4.1 and MR 4.2: For products having recycled content, submit invoices and documentation from manufacturer indicating percentages (by weight) of post-consumer and pre-consumer recycled content. Include material costs (taxes, fees, shipping, labor, profit, etc. not included) for each product having recycled content.
 - 2. Manufacturing Data for Credits MR 5.1 and MR5.2: Submit invoices and documentation indicating location of manufacture and locations of extraction and/or harvest for each raw

material sourced within 500 miles of the project site. Indicate method of calculating distance from location to project site.

3. Product Data for Credit IEQ 4.1: Submit cut sheets and/ or material safety data sheets (MSDS) for all sealants and installation adhesives, with VOC levels highlighted. (Information on adhesives and sealants used on the exterior surface of the building – defined as outside of the waterproofing – are not required.)
- D. Installer Certificates: Signed by manufacturers certifying that installers comply with requirements.
- E. Qualification Data: For Installer.
- F. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for waterproofing.
- G. Warranties: Special warranties specified in this Section.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A firm that is acceptable to waterproofing manufacturer for installation of waterproofing required for this Project.
- B. Source Limitations: Components used in this section shall be sourced from one manufacturer, including sheet membrane, liquid sealants, primers, mastics, and adhesives.
- C. Maintain one copy of manufacturer's instructions on site.
- D. At the beginning of the work and at all times during the execution of the work, allow access to work site by the waterproofing membrane manufacturer's representative.
- E. Pre-Installation Conference: Convene prior to commencing work of this section.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in original packages with seals unbroken, labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing. Store according to manufacturer's written instructions. Protect stored materials from direct sunlight.
- B. Store materials in their original undamaged packages in a clean, dry, protected location and within temperature range required by waterproofing manufacturer.
- C. Remove and replace materials that cannot be applied within their stated shelf life.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Apply waterproofing within the range of ambient and substrate temperatures recommended by waterproofing manufacturer. Do not apply waterproofing to a damp or wet substrate or to substrate that has dust, dirt, or other particulate matter on its surface. Do not apply waterproofing in snow, rain, fog, or mist.

1.8 WARRANTY

- A. Special Manufacturer's Warranty: Manufacturer's standard form in which manufacturer agrees to replace waterproofing material that does not comply with requirements or that fails to remain watertight within specified warranty period.
 - 1. Warranty does not include failure of waterproofing due to failure of substrate prepared and treated according to requirements or formation of new joints and cracks in substrate exceeding 1/16 inch in width.
 - 2. Warranty Period: Five years from date of Substantial Completion.
- B. Special Installer's Warranty: Specified form, signed by Installer, covering Work of this Section, for warranty period of two years.
 - 1. Warranty includes removing and reinstalling protection board, substrate unable to be reused, and finish exterior surface siding and/or cement plaster and lath.

PART 2 - PRODUCTS

2.1 MODIFIED BITUMINOUS SHEET WATERPROOFING

- A. Modified Bituminous Sheet, Fabric Reinforced: 60-mil- thick, self-adhering sheet consisting of rubberized-asphalt membrane embedded in spun-bonded polyester or fiberglass non-woven fabric reinforcement laminated to a 0.50-mil- thick polyester film with release liner on adhesive side.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Henry, Blueskin WP 200
 - b. Protecto Wrap Company; Jiffy Seal 140/60.
 - c. Royston Laboratories, Div. of Chase Corporation; Royal-Gard.
 - 2. Physical Properties:
 - a. Thickness: 60 mils (1.5 mm).
 - b. Pliability: Passes when tested in accordance with ASTM D146.
 - c. Hydrostatic-Head Resistance: 150 feet minimum.
 - d. Vapor Permeance: 0.05 perms

2.2 AUXILIARY MATERIALS

- A. General: Furnish auxiliary materials recommended by waterproofing manufacturer for intended use and compatible with sheet waterproofing.
- B. Primer: Liquid primer recommended for substrate by manufacturer of sheet waterproofing material.
- C. Surface Conditioner: Liquid, waterborne surface conditioner recommended for substrate by manufacturer of sheet waterproofing material.

- D. Sheet Strips: Self-adhering, rubberized-asphalt sheet strips of same material and thickness as sheet waterproofing.
- E. Mastic, Adhesives, and Tape: Liquid mastic and adhesives, and adhesive tapes recommended by waterproofing manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements and other conditions affecting performance.
 - 1. Verify that concrete has cured and aged for minimum time period recommended by waterproofing manufacturer. Verify that concrete is visibly dry and free of moisture.
 - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 SURFACE PREPARATION

- A. Clean, prepare, and treat substrates according to manufacturer's written instructions. Provide clean, dust-free, and dry substrates for waterproofing application.
- B. Remove grease, oil, bitumen, form-release agents, paints, curing compounds, and other penetrating contaminants or film-forming coatings from substrate.
- C. Prepare, fill, prime, and treat joints and cracks in substrates. Remove dust and dirt from joints and cracks.
- D. Bridge and cover isolation joints, expansion joints and discontinuous deck-to-wall and deck-to-deck joints with overlapping sheet strips.
 - 1. Invert and loosely lay first sheet strip over center of joint. Firmly adhere second sheet strip to first and overlap to substrate.
- E. Corners: Prepare, prime, and treat inside and outside corners according to ASTM D 6135. Install membrane strips centered over vertical inside corners as shown on drawings.
- F. Prepare, treat, and seal vertical and horizontal surfaces at terminations and penetrations through waterproofing and at drains and protrusions according to ASTM D 6135.

3.3 MODIFIED BITUMINOUS SHEET WATERPROOFING APPLICATION

- A. Install modified bituminous sheets according to waterproofing manufacturer's written instructions and according to recommendations in ASTM D 6135.
- B. Apply recommended primers to substrates at required rate and allow to dry. Limit priming to areas that will be covered by sheet waterproofing in same day. Reprime areas exposed for more than 24 hours.

- C. Apply and firmly adhere sheets over area to receive waterproofing. Accurately align sheets and maintain uniform 2-1/2-inch minimum lap widths and end laps. Overlap and seal seams and stagger end laps to ensure watertight installation.
 - 1. When ambient and substrate temperatures range between 25 and 40 deg F, install self-adhering, modified bituminous sheets produced for low-temperature application. Do not use low-temperature sheets if ambient or substrate temperature is higher than 60 deg F.
- D. Two-Ply Application: Install sheets to form a membrane with lap widths not less than 50 percent of sheet widths to provide a minimum of 2 thicknesses of sheet membrane over areas to receive waterproofing.
- E. Horizontal Application: Apply sheets from low point to high point of decks to ensure that side laps shed water.
- F. Apply continuous sheets over sheet strips bridging substrate cracks, construction, and contraction joints.
- G. Seal exposed edges of sheets at terminations not concealed by metal counterflashings or ending in reglets with mastic.
- H. Install sheet waterproofing and auxiliary materials to tie into adjacent waterproofing.
- I. Repair tears, voids, and lapped seams in waterproofing not complying with requirements. Slit and flatten fishmouths and blisters. Patch with sheet waterproofing extending 6 inches beyond repaired areas in all directions.
- J. Install protection course with butted joints over waterproofing membrane immediately.
- K. Correct deficiencies in or remove sheet waterproofing that does not comply with requirements; repair substrates, reapply waterproofing, and repair sheet flashings.

3.4 PROTECTION AND CLEANING

- A. Protect waterproofing from damage and wear during remainder of construction period.
- B. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

3.5 WASTE MANAGEMENT

- A. Separate and recycle materials in accordance with the Waste Management Plan.
- B. Asphalt products may be recycled into certain asphaltic paving mixes.
- C. Separate metal banding for recycling.

END OF SECTION