

SECTION 07 11 13
BITUMINOUS
DAMPPROOFING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Fabricating, furnishing, delivering, and erecting the following work:
 - 1. Cold-applied bituminous dampproofing course at foundation walls including protection insulation.
 - 2. Accessories required for a complete installation, including but not limited to substrate primers, adhesives, and sealants required for the installation of the Work of this Section.

1.02 RELATED REQUIREMENTS

- A. The Conditions of the Contract General requirements of the Project Manual apply to this Subcontractor, material supplier, and other persons furnishing labor and materials under this section. General Conditions, Supplementary Conditions and applicable parts of Division 01 are included as part of this section.

1.02 REFERENCE STANDARDS

- A. Editions of listed Standards as referenced by applicable codes; if no edition is referenced, the current edition of the following:
 - 1. ASTM. ASTM International; www.astm.org.
 - a. ASTM D41/D41M - Standard Specification for Asphalt Primer Used in Roofing, Dampproofing, and Waterproofing.
 - b. ASTM D43/D43M - Standard Specification for Coal Tar Primer Used in Roofing, Dampproofing, and Waterproofing.
 - c. ASTM D449/D449M - Standard Specification for Asphalt Used in Dampproofing and Waterproofing.
 - d. ASTM D450/D450M - Standard Specification for Coal-Tar Pitch Used in Roofing, Dampproofing, and Waterproofing.
 - e. ASTM D1187/D1187M - Standard Specification for Asphalt-Base Emulsions for Use as Protective Coatings for Metal.
 - f. ASTM D1227 - Standard Specification for Emulsified Asphalt Used as a Protective Coating for Roofing.
 - 2. NRCA ML104 - The NRCA Roofing and Waterproofing; National Roofing Contractors Association.

1.05 SUBMITTALS

- A. Construction Submittals:
 - 1. Submit in accordance with Section 01 30 00 - Administrative Requirements.
 - 2. Product Data: Provide properties of primer, bitumen, and mastics.
 - 3. Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.
 - 4. Subcontractor's written acknowledgement of acceptance of substrate conditions as acceptable to receive products of this section. Submit prior to commencement of installation of products of this section.
- B. Closeout Submittals:
 - 1. Submit in accordance with Section 01 70 00 - Execution and Closeout Requirements and Section 01 78 00 - Closeout Submittals.
 - a. Warranty Documentation: Executed warranties.

1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company with a minimum of twenty (20) years experience specializing in manufacturing Products specified in this Section.
- B. Installer Qualifications: Company specializing in performing the work of this section with minimum 5 years experience.
 - 1. Written confirmation or certification from the Waterproofing Manufacturer that the installer has been trained and is recognized by the manufacturer as suitable for the execution of the work.
 - 2. List of at least three (3) projects contracted within the past five (5) years of similar scope and complexity to this project carried out by the firm and site supervisor.
 - 3. Single Source Responsibility: Furnish system materials from one manufacturer for entire Project, unless otherwise acceptable to Architect.
 - 4. Certifications: Verify products are compatible with each other and with spray foam insulation.

1.07 MOCK-UP

- A. The project scope includes a stand-alone mock-up assembly representative of the exterior envelope of the building, and includes the Work of this section and other components of the exterior envelope as described in Section 01 40 00 - Quality Requirements.
- B. The pertinent contractors and subcontractors shall erect the Mock-Up assembly for review by the Architect and Owner, and all corrective actions and replacement of unsatisfactory work identified by the Architect completed by the Contractors and accepted as the standard for execution of the work and the materials proposed prior to commencement of the work on the building envelope.
- C. Schedule Submittals for products indicated to be used in the mock-up so in sufficient time to allow review prior to the scheduled erection of the mock-up. Allow time for resubmittal and review.
- D. Following acceptance of submittals for material components and selection of colors provide materials of each color selected, installed in place on the mock up for final review by Architect prior to proceeding with the Work.
 - 1. The mock-up shall be constructed full size as indicated in the Drawings, and utilize specified colors and materials.
 - 2. Demonstrate the anticipated range of materials, workmanship and finish expected.
 - 3. Accepted mock-ups will be used as standard of comparison for colors and textures of units, mortar, bond pattern, joint finish. joint reinforcement, anchors, ties, workmanship, and other pertinent details, including proposed method of keeping cavities free of mortar.
 - 4. Modify and/or replace mock-ups as many times as necessary to obtain Architect's and Owner's approval.
 - 5. Do not start work until mock-ups are accepted by Owner and Architect.
- E. Mock-up may not remain as part of the Work.

1.08 PRODUCT DELIVERY AND STORAGE

- A. Comply with Section 01 60 00, fabricator's instructions and recommendations, and as follows:
 - 1. Deliver materials and products in labeled packages. Store and handle in strict compliance with manufacturer's instructions, recommendations and material safety data sheets. Protect from damage from sunlight, weather, excessive temperatures and construction operations. Remove damaged material from the site and dispose of in accordance with applicable regulations.
 - 2. Store in a heated room and keep container covered when not in use.
 - 3. Sequence deliveries to avoid delays, but minimize on-site storage.

1.09 FIELD CONDITIONS

- A. Maintain ambient temperatures above 40 degrees F for 24 hours before and during application until dampproofing has cured.

- B. Ambient Conditions: Perform work only when existing and forecast weather conditions are within the limits established by the manufacturer of the materials used.
- C. Proceed with installation only when the substrate construction and preparation work is complete and in condition to receive product.

PART 2 PRODUCTS

2.01 DAMPPROOFING PRODUCTS

- A. Bituminous Dampproofing: Cold-applied water-based emulsion; asphalt with mineral colloid or chemical emulsifying agent; with or without fiber reinforcement; asbestos-free; suitable for application on vertical and horizontal surfaces.
 - 1. Composition - Vertical Application: ASTM D1227 Type III or ASTM D1187 Type I.
 - 2. Composition - Horizontal and Low-Slope Application: ASTM D1227 Type II or III.
 - 3. VOC Content: Not more than permitted by local, State, and federal regulations.
 - 4. Applied Thickness: 1/16 inch, minimum, wet film.
 - 5. Products:
 - a. Basis of Design: W.R. Meadows, Inc.; Sealmastic Emulsion Type I (spray-grade): www.wrmeadows.com or equal.
- B. Primers, Mastics, and Related Materials: Type as recommended by dampproofing manufacturer.

2.02 ACCESSORIES

- A. Asphalt coated glass-reinforced fabric; 8 inches wide for reinforcement of joints.
- B. 2" Rigid Insulation applied over the Damproofing. Insulation to be expanded polystyrene (EPS)
- C. Adhesive to attach rigid board to wall, basis of design is Loctite PL 300 foam board Adhesive. Apply at 16" oc vertically and horizontally to keep insulation in place.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify substrate surfaces are durable, free of matter detrimental to adhesion or application of dampproofing system.
- C. Verify that items that penetrate surfaces to receive dampproofing are securely installed.
- D. Test for surface moisture per ASTM D 4263.
- E. Submit contractor's written acceptance of substrate conditions prior to commencement of installation.
- F. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Protect adjacent surfaces not designated to receive dampproofing.
- B. Clean and prepare surfaces to receive dampproofing in accordance with manufacturer's instructions.
- C. Do not apply dampproofing to surfaces unacceptable to manufacturer.
- D. Apply mastic to seal penetrations, small cracks, or minor honeycomb in substrate.

3.03 APPLICATION

- A. Comply with manufacturer's written recommendations unless more stringent requirements are indicated or required by Project conditions to ensure satisfactory performance of dampproofing.
- B. Apply two coats dampproofing as indicated on Drawings.
 - 1. At joint of footing and wall, extend 2 coats horizontally over edge of footing and vertically 12 inches
- C. Extend 12 inches onto intersecting foundation walls and footings, but do not extend onto surfaces exposed to view when Project is completed.
- D. Install flashings and corner protection stripping at internal and external corners, changes in plane, construction joints, cracks, and where shown as "reinforced," by embedding an 8-inch- wide strip of asphalt-coated glass fabric in a heavy coat of dampproofing. Dampproofing coat for embedding fabric is in addition to other coats required.
- E. Perform work in accordance with NRCA Roofing and Waterproofing Manual.
- F. Prime surfaces in accordance with manufacturer's instructions.
- G. Apply bitumen in two coats, continuous and uniform, at a rate matching manufacturers recommendations.
- H. Seal items projecting through dampproofing surface with mastic. Seal watertight.
- I. Insatll 2" rigid board over entire wall surface sitting on the footing. Attach with adhesive.

3.04 REPAIR AND PROTECTION

- A. Visually inspect installed dampproofing for voids, damage, or rupture. Repair defects in accordance with manufacturer's published application specifications.
- B. Clean misplaced dampproofing materials from adjacent surfaces with solvent recommended by manufacturer.

3.05 CLEANING

- A. Comply with requirements of Section 01 74 19 -Construction Waste Management and Disposal.
- B. Remove dampproofing materials from surfaces not intended to receive dampproofing.

END OF SECTION