

**SECTION 13062 - VAPOR BARRIERS AND FLASHING****PART 1 - GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

**1.2 SUMMARY**

- A. This Section includes the following:
  - 1. Vapor barrier flashings.
- B. Related Sections: The following Sections contain requirements that relate to this Section:
  - 1. Division 7 Section "Sheet Metal Flashing And Trim" for sheet metal flashings.
  - 2. Division 7 Section "Joint Sealants" for joint sealant materials and installation.
  - 3. Division 7 Section "EPDM Single-Ply Membrane Roofing"
  - 4. Division 13 Section 13060 - "Manufactured Insulated Metal Panels."
  - 5. Division 13 Section 13063 - "Cold Storage Doors."

**1.3 PERFORMANCE REQUIREMENTS**

- A. General: Provide vapor barrier materials that have a permeance value of no greater than 0.045 perms as demonstrated by testing performed by an independent testing agency of manufacturer's current sheet membrane.

**1.4 SUBMITTALS**

- A. General: Submit each item in this Article according to the Conditions of the Contract and Division 1 Specification Sections.
- B. Product Data for each type of membrane material specified, including manufacturer's printed instructions for evaluating, preparing, and treating substrate, technical data, and tested physical and performance properties.
- C. Shop Drawings showing locations and extent of vapor barrier membranes, including details for flashings, penetrations, tie-ins with adjoining construction, and other termination conditions.
- D. Samples, 3-by-6-inch minimum size, of each vapor barrier material required for Project.
- E. Product performance from manufacturer's literature evidencing compliance with requirements and other physical properties.

**1.5 QUALITY ASSURANCE**

- A. Installer Qualifications: Installer shall be one named on the list of prequalified Cold Storage Contractors.
- B. Single-Source Responsibility: Obtain vapor barrier materials from a single manufacturer.

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- A. Deliver materials to Project site in original packages with seals unbroken, labeled with manufacturer's name, product, date of manufacture, and directions for storage.
- B. Store materials in their original undamaged packages in a clean, dry, protected location and within temperature range required by waterproofing manufacturer. Protect stored materials from direct sunlight.

**1.7 PROJECT CONDITIONS**

- A. Environmental Conditions: Apply vapor barrier adhesives and sealants within range of ambient and substrate temperatures recommended by the manufacturer. Do not apply to a damp or wet substrate.
- B. Maintain adequate ventilation during preparation and application of adhesive and sealant materials.

**1.8 WARRANTY**

- A. General Warranty: The special warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Contractor under requirements of the Contract Documents.
- B. Special Warranty: Submit a written warranty signed by the Installer agreeing to repair or replace work that does not meet requirements or that does not remain vaportight during the specified warranty period.
  - 1. Warranty Period: 2 years after date of Substantial Completion.

**PART 2 - PRODUCTS****2.1 MANUFACTURERS**

- A. Available Products: Subject to compliance with requirements, products that may be incorporated in the Work include, but are not limited to, the following:
  - 1. EPDM Sheet:
    - a) Carlisle Syntec Systems.
    - b) Firestone Building Products Co.
    - c) Goodyear.

**2.2 EPDM VAPOR BARRIER MEMBRANE FLASHINGS**

- A. EPDM Sheet: Uniform, flexible sheet formed from a terpolymer of ethylene-propylene-diene, complying with ASTM D 4637, Type 1, Grade 1, Class U, unreinforced, Black, of the following thickness:
  - 1. Thickness: 60 mils, nominal.
- B. Provide EPDM vapor barrier flashing under base channel for all wall panels.

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- C. Provide EPDM vapor barrier flashing at all floor/wall junctures, all wall intersections and as otherwise noted or required for vapor barrier continuity around all rooms having an operating temperature of 55 F or below. Flashings shall be placed on the warm side of insulated panels.

**2.3 AUXILIARY MATERIALS**

- A. General: Furnish auxiliary materials recommended by manufacturer for intended use and compatible with sheet membrane materials.
  - 1. Furnish liquid-type auxiliary materials that meet VOC limits of authorities having jurisdiction.
- B. Mastic, Adhesives, and Tape: Liquid mastic and adhesives, and adhesive tapes recommended by the membrane manufacturer.
- C. Metal Termination Bars: Aluminum bars, approximately 1 by 1/8 inch thick, predrilled at 9-inch centers.
- D. CaulkingTape: 1/8" thick caulking tape, 2 inches wide, #214 butyl as manufactured by Uniseal Company.

**PART 3 - EXECUTION****3.1 EXAMINATION**

- A. Examine substrates, areas, and conditions under which waterproofing systems will be applied, with Installer present, for compliance with requirements. Do not proceed with installation until unsatisfactory conditions have been corrected.
  - 1. Do not proceed with installation until after minimum concrete curing period recommended by waterproofing manufacturer.
  - 2. Notify Engineer in writing of anticipated problems using vapor barriers over substrate.

**3.2 SURFACE PREPARATION**

- A. Clean, prepare, and treat substrate according to manufacturer's written instructions. Provide clean, dust-free, and dry substrate for vapor barrier application.
- B. Remove grease, oil, form release agents, paints, and other penetrating contaminants from concrete.
- C. Remove fins, ridges, mortar, and other projections.
- D. Apply vapor barrier sheet membrane over areas noted on the Drawings. Accurately align sheets and maintain uniform 4-inch minimum lap widths and end laps. Overlap and seal seams to ensure vaportight installation.

**3.3 EPDM VAPOR BARRIER MEMBRANE FLASHINGS**

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- A. EPDM membrane flashings shall be lapped a minimum of 4" over the metal skin of insulated panels and other membrane materials and sealed vapor tight using 100% coverage of adhesive.

**3.4 FIELD QUALITY CONTROL**

- A. The Contractor shall have an experienced superintendent to supervise the installation of all vapor barriers and vapor barrier flashings.
- B. Correct deficiencies in or remove work that does not comply with requirements and repair sheet flashings that are not properly sealed for vaportightness.
- C. NOTE: NO METAL TRIMS OR GRAVEL STOPS SHALL BE INSTALLED OVER VAPOR BARRIER FLASHINGS UNTIL THE ENGINEER HAS REVIEWED THIS WORK. NOTIFY THE ENGINEER TWO (2) WEEKS PRIOR TO FINISHING ALL FLASHINGS.

**3.5 PROTECTING AND CLEANING**

- A. Protect vapor barriers from damage and wear during application and remainder of construction period, according to manufacturer's written instructions.
- B. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.

END OF SECTION 13062