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This specification specifies the ***Air Barrier 1200 VP***. This product is manufactured by Mar-flex Waterproofing and Building Products. Revise section number and title below to suit project requirements, specification practices and section content. Refer to CSI MasterFormat for other section numbers and titles.

This specification utilizes the Construction Specifications Institute (CSI) Manual of Practice, including MasterFormat™, SectionFormat™ and PageFormat™. This is a manufacturer-specific proprietary product specification using the proprietary method of specifying applicable to project specifications and master guide specifications. Optional text is indicated by brackets []; delete optional text in final copy of specification. Specifier Notes typically precede specification text; delete notes in final copy of specification. Trade/brand names with appropriate symbols typically are used in Specifier Notes; symbols are not used in specification text. Metric conversion, where used, is soft metric conversion.

SECTION 07270

PART 1 GENERAL

1.01 SUMMARY

A. SECTION INCLUDES

1. Materials and installation methods for a liquid applied vapor permeable air barrier system located in the non-accessible part of the wall (cavity wall).
2. Materials and installation to bridge and seal openings and penetrations of window frames, door frames, masonry ties and similar leakage paths in the wall.

B. RELATED SECTIONS

SPEC NOTE: Limit the following listings to sections that have a DIRECT affect on this section.

1. Section (_____): Below grade (waterproofing) (dampproofing) membrane.

SPEC NOTE: Specify concrete surfaces to be smooth and without large voids, spalled areas or sharp protrusions.

2. Section (_____): Concrete wall construction

SPEC NOTE: Specify masonry joints to be flush and completely filled with mortar, with all excess mortar on brick ties to be removed.

3. Section (_____): Masonry wall construction.
4. Section (_____): Steel stud wall construction.
5. Section (_____): Insulation.
6. Section (_____): Fire stopping materials.
7. Section (_____): Roofing membrane (and vapor retarder).
8. Section (_____): Gypsum sheathing.
9. Section (_____): Plywood Sheathing.
10. Section (_____): Flashing.
11. Section (_____): Wall Panels.
12. Section 07900 – Joint Sealers: Sealant materials and insulation techniques.

SPEC NOTE: Reference all wall appurtenances that penetrate air seal materials or assemblies; as follows:

13. Section (_____): Door frames.
14. Section (_____): Window frames.

1.02 REFERENCES - MATERIAL

A. American Society for Testing and Materials

1. ASTM D 412: Tensile Strength and Elongation
2. ASTM E 96: (Method B): Water Vapor Permeance (perms)
3. ASTM E 2178: Air Permeance of Building Materials
4. ASTM D 903: Peel Adhesion to Concrete, CMU, Exterior Sheathing

B. Connections to Adjacent Materials: Provide connections to prevent air leakage and vapor migration at the following locations:
   1. Foundation and walls, including penetrations, ties and anchors
   2. Walls, windows, curtain walls, storefronts, louvers or doors
   3. Different wall assemblies, and fixed openings within those assemblies
   4. Wall and roof connections and penetrations
   5. Floors over unconditioned spaces
   6. Walls, floors and roof across construction, control and expansion joints
   7. Walls, floors and roof utility, pipe and duct penetrations
   8. Seismic and expansion joints
   9. All other leakage pathways in the building envelope

1.03 SUBMITTALS

A. SUBMITTALS
   1. Product Data: Submit manufacturer's product data sheets, application guidelines, detailed drawings, and samples prior to commencing the work.

B. QUALIFICATIONS
   1. Applicator: Company specializing in performing work of this section approved by air barrier membrane material manufacturer.
   2. Obtain air barrier components from a single manufacturer if possible.
   3. Provide products which comply with all state and local regulations controlling the use of volatile organic compounds (VOC's).

C. ENVIROMENTAL REQUIREMENTS
   1. Ensure application temperature and humidity recommended by material manufacturer is maintained before, during and after installation.
   2. Product can be applied to damp (green) concrete.
   3. Do not apply air barrier in snow, rain fog or mist.

D. SEQUENCING
   1. Sequence work under provisions of Section (_____).
   2. Sequence work to permit installation of materials in conjunction with related materials and seals.

E. COORDINATION
   1. Coordinate work of these sections referencing this section.

PART 2 PRODUCTS

SPEC NOTE: Retain article below for proprietary method specification. Add product attributes performance characteristics, material standards and descriptions as applicable.

2.01 MATERIALS

A. Manufacturer: Mar-flex Waterproofing and Building Products
   1. Contact: 500 Business Pkwy, Carlisle, Oh 45005 (800) 498-1411, (513) 422-7285, Fax (513) 422-7282, info@mar-flex.com
   2. Web-site: www.Mar-flex.com

B. Vapor Permeable Air Barrier Membrane: Air Barrier 1200 VP membrane, having an Air Leakage Rating (ASTM E 2178) less than 0.004 cfm/ft², Water Vapor Permeance (ASTM E 96) 12 perms and Elongation M 1,000%. Manufactured by Mar-flex Waterproofing and Building Products

C. Transition Strip: EcoFlash is a self adhering smooth surfaced modified bitumen membrane. Nominal 40 mil thickness, multiple widths are available. Manufactured by Mar-flex Waterproofing and Building Products

D. Transition Strip Primer: 1200 Primer manufactured by Mar-flex Waterproofing and Building Products

E. Substrate Filler: 1200 Mastic manufactured by Mar-flex Waterproofing and Building Products.

2.02 PRODUCT SUBSTITUTIONS

A. No substitutions permitted

PART 3 EXECUTION OF WORK

3.01 MANUFACTURER'S INSTRUCTIONS

A. Comply with the most current written installation instructions and recommendations of the Air Barrier manufacturer.

3.02 EXAMINATION

A. Verify that surfaces and conditions are suitable prior to commencing work of this section.
B. Ensure that:
   1. Surfaces are sound, dry, even and free of oil, grease, dirt, excess mortar or other contaminants.
   2. Concrete surfaces are cured and dry, smooth without large voids, spalled areas or sharp protrusions.
   3. Masonry joints are flush and completely filled with mortar and all excess mortar on masonry ties has been removed.

3.03 PREPARATION

A. Remove loose or foreign matter with manufacturer's instructions.
B. Fill any voids with 1200 Mastic substrate filler.
C. Clean and prime substrate joint/connection surfaces to receive transition strip in accordance with manufacturer's instructions.

3.04 APPLICATION

A. Install materials in accordance with manufacturer's instructions.

SPEC NOTE: Modify the following paragraphs as appropriate to drawing details. Ensure drawings utilize the same terminology used in this section. Alternatively schedule specific applications at the end of this section. Liquid air barrier materials should be placed over firm backup to achieve structural support in order to accomplish an effective and permanent air barrier seal.

B. Transition joints: Seal with EcoFlash transition strip at beams, columns, changes in substrate material and similar joints or connections to provide continuity of air barrier assembly. Generally, apply transition strip so that a minimum of 3" coverage is achieved over both substrates. Position strip over firm bearing.
C. Window frame perimeter and door frames: Lap transition strip from wall substrate with a minimum of 3" of full contact over form bearing to window or door frame with 1" of full contact.
D. Apply air barrier membrane within recommended application temperature ranges. Consult manufacturer when membrane cannot be applied within these temperature ranges.
E. Using airless spray equipment with a minimum pressure of 3000 psi, apply first coat of air barrier membrane over exterior face of the inner cavity wall.
F. Use alternating horizontal and vertical passes to ensure complete coverage of substrate and transition strips. Seal masonry anchors or other penetrations air tight.
G. Check surface again and if necessary, fill any remaining gaps with mastic substrate filler prior to covering with membrane.
H. Complete application of membrane at a coverage rate of 20 $ft.^2$/gal., to provide a seamless monolithic surface to a thickness of 30-35 mils.
I. Inspect surface area with wet mil gauge to ensure proper thickness.
J. Allow 12-24 hours for membrane to fully cure.

SPEC NOTE: Specify installation of board insulation in insulation section of specification or specify here as desired.

K. Adhere the insulation to the air barrier membrane after initial set time of approximately 1 to 2 hours and while membrane is still tacky, to prevent convection currents occurring behind the insulation.

3.05 PROTECTION OF FINISHED WORK

A. Protect finished work under provisions of Section (_____) – (_____).
B. Do not permit adjacent work to damage work of this section.

3.06 CLEANING

A. Clean spillage and soiling from adjacent construction using cleaning agents and procedures recommended by manufacturer of affected construction.