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Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, as described in *The Project Resource Manual—CSI Manual of Practice, Fifth Edition*.

This section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all “Specifier Notes” after editing this section.

Section numbers are from *MasterFormat 2010 Update*.

SECTION 04 05 23.19

MASONRY RAINSCREEN

Specifier Notes: This section covers Advanced Building Products, Inc. “Mortairvent®” masonry rainscreen, a mortar deflection and ventilation mat that acts as a pressure-equalized airspace between the structural envelope and the exterior masonry cladding. Consult Advanced Building Products, Inc. for assistance in editing this section for the specific application.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Masonry rainscreen.

1.2 RELATED REQUIREMENTS

Specifier Notes: Edit the following list of related sections as required. Delete related sections not required. List other sections with work directly related to this section.

- A. Section 04 05 23 – Masonry Accessories.

1.3 REFERENCE STANDARDS

Specifier Notes: List reference standards mentioned in this section, complete with designations and titles. Delete reference standards not included in this edited section. This article does not require compliance with reference standards, but is merely a listing of those used.

- A. ASTM D 792 – Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement.
- B. ASTM D 4716 – Standard Test Method for Determining the (In-plane) Flow Rate per Unit Width and Hydraulic Transmissivity of a Geosynthetic Using a Constant Head.
- C. ASTM D 5261 – Standard Test Method for Measuring Mass per Unit Area of Geotextiles.
- D. ASTM D 6525 – Standard Test Method for Measuring Nominal Thickness of Permanent Rolled Erosion Control Products.
- E. ASTM D 6566 – Standard Test Method for Measuring Mass per Unit Area of Turf Reinforcement Mats.
- F. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
- G. Erosion Control Technology Council (ECTC) TASC 00197 – Porosity Test.

1.4 SUBMITTALS

Specifier Notes: Edit submittal requirements as required. Delete submittals not required.

- A. Comply with Section 01 33 00 – Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including preparation and installation instructions.
- C. Samples: Submit manufacturer's sample of masonry rainscreen, minimum 6 inches by 6 inches.
- D. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- E. Warranty Documentation: Submit manufacturer's standard warranty.

1.5 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Manufacturer regularly engaged, for past 5 years, in manufacture of masonry rainscreen of similar type to that specified.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Acceptance Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage and Handling Requirements:
 - 1. Store and handle materials in accordance with manufacturer's instructions.
 - 2. Keep materials in manufacturer's original, unopened containers and packaging until installation.
 - 3. Store materials in clean, dry area indoors.
 - 4. Protect materials during storage, handling, and installation to prevent damage.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Advanced Building Products, Inc., 95 Cyro Drive, Sanford, Maine 04073. Toll Free 800-252-2306. Phone 207-490-2306. Fax 207-490-2998. Website www.mortairvent.com. E-mail info@abp-1.com.

2.2 MASONRY RAINSCREEN

Specifier Notes: Use of "Mortairvent" can contribute toward LEED credits. Consult Advanced Building Products, Inc. for more information.

- A. Masonry Rainscreen: "Mortairvent".
 - 1. Rainscreen System: Creates pressure-equalized airspace between structural envelope and exterior masonry cladding.
 - 2. Two-ply mat.
 - 3. Core Mesh:

Specifier Notes: Specify polypropylene core mesh with cornrow configuration when specifying 0.25-inch (6-mm) total thickness.

Specify polypropylene core mesh with waffle configuration when specifying 0.4-inch (10-mm) total thickness.

Specify polypropylene core mesh with random configuration when specifying 0.8-inch (20-mm) total thickness.

- a. [Polypropylene core mesh with cornrow configuration] [Polypropylene core mesh with waffle configuration] [Polypropylene core mesh with random configuration].
- b. Spun and heat welded into entangled geomatrix.
- c. Creates airspace.
- 4. Filter Fabric:
 - a. Polyester.
 - b. Laminated to outside of core mesh.
 - c. Blocks mortar droppings and restricts mortar from entering airspace.
 - d. Permits moisture drainage.

Specifier Notes: Specify the masonry rainscreen thickness.

5. Total Thickness: [0.25 inch (6 mm)] [0.4 inch (10 mm)] [0.8 inch (20 mm)].

B. Test Results:

Specifier Notes: Include test results for the specified masonry rainscreen total thickness.

1. Masonry Rainscreen, 0.25-inch (6-mm) Total Thickness:
 - a. Thickness, ASTM D 6525: 0.268 inch (6.8 mm).
 - b. Density, ASTM D 792, Method A: 0.901 g/cm³.
 - c. Porosity, ECTC TASC 00197: 93.8 percent.
 - d. Mass per Unit Area, ASTM D 5261 and D 6566:
 - 1) Composite: 11.25 oz per sq yd (382 g/m²).
 - 2) Core: 9.20 oz per sq yd (312 g/m²).
 - e. Hydraulic Transmissivity, Machine Direction, ASTM D 4716:
 - 1) Flow Rate: 3.70 GPM/ft width.
 - 2) Transmissivity: 7.65E-03 m²/s.
 - f. Air Transmissivity, ASTM D 4716, Modified:
 - 1) Estimated Flow Rate: 15.8 cu ft/min/ft width.
 - 2) Incremental Transmissivity: 6.97E-04 m²/s.
 - g. Fire Rating, ASTM E 84: Class A.
2. Masonry Rainscreen, 0.4-inch (10-mm) Total Thickness:
 - a. Thickness, ASTM D 6525: 0.407 inch (10.3 mm).
 - b. Density, ASTM D 792, Method A: 0.903 g/cm³.
 - c. Porosity, ECTC TASC 00197: 95.3 percent.
 - d. Mass per Unit Area, ASTM D 5261 and D 6566:
 - 1) Composite: 15.10 oz per sq yd (512 g/m²).
 - 2) Core: 13.05 oz per sq yd (442 g/m²).
 - e. Hydraulic Transmissivity, Machine Direction, ASTM D 4716:
 - 1) Flow Rate: 7.01 GPM/ft width.
 - 2) Transmissivity: 1.45E-02 m²/s.
 - f. Air Transmissivity, ASTM D 4716, Modified:
 - 1) Estimated Flow Rate: 54.5 cu ft/min/ft width.
 - 2) Incremental Transmissivity: 2.41E-03 m²/s.
 - g. Fire Rating, ASTM E 84: Class A.
3. Masonry Rainscreen, 0.80-inch (20-mm) Total Thickness:
 - a. Thickness, ASTM D 6525: 0.768 inch (19.5 mm).
 - b. Density, ASTM D 792, Method A: 0.910 g/cm³.
 - c. Porosity, ECTC TASC 00197: 97.7 percent.
 - d. Mass per Unit Area, ASTM D 5261 and D 6566: 12.15 oz per sq yd (412 g/m²).
 - e. Hydraulic Transmissivity, Machine Direction, ASTM D 4716:
 - 1) Flow Rate: 12.00 GPM/ft width.
 - 2) Transmissivity: 2.48E-02 m²/s.
 - f. Air Transmissivity, ASTM D 4716, Modified:
 - 1) Estimated Flow Rate: 89.5 cu ft/min/ft width.
 - 2) Incremental Transmissivity: 3.96E-03 m²/s.

- g. Fire Rating, ASTM E 84: Class A.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas to receive masonry rainscreen.
- B. Notify Architect of conditions that would adversely affect installation or subsequent use.
- C. Do not begin surface preparation or installation until unacceptable conditions are corrected.

3.2 SURFACE PREPARATION

- A. Prepare surfaces adjacent to masonry rainscreen in accordance with manufacturer's instructions.

3.3 INSTALLATION

- A. Install masonry rainscreen in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Install masonry rainscreen after windows and doors have been installed and flashed.
- C. Install masonry rainscreen with blue matrix side against weather-resistant barrier and with mortar-deflection fabric facing outward.
- D. Butt blue polypropylene matrix pieces together, only overlapping 4-inch filter fabric shingle style.
- E. Install masonry rainscreen to perform the following:
 - 1. Create pressure-equalized airspace between structural envelope and exterior masonry cladding.
 - 2. Block mortar droppings.
 - 3. Permit moisture drainage.
 - 4. Permit convective airflow and drying.

3.4 PROTECTION

- A. Protect installed masonry rainscreen from damage during construction.

END OF SECTION