PRODUCT DATA SHEET

PANEL+ Wall System

Insulated Masonry Veneer Wall System

USES

Adhered Thin Brick, Stone, or Tile Veneer over commercial, residential, and institutional exterior wall assemblies—new construction or retrofit. Select fluid-applied when a continuous AWB is required as part of the enclosure; select mechanically fastened when direct fastening to framing/sheathing and a drainable wrap are preferred.

Continuous Insulation (CI) + Substrate for adhered veneers, delivering thermal performance (e.g., R-4.2/in @ 75°F for Type II EPS) and a precision, level base for veneer coursing.

APPROVED SUBSTRATES

PermaBase® Cement Board and other cement boards conforming with ASTM C1325 (Type A - exterior); poured concrete/unit masonry; ASTM C1177 type sheathings, including Weather Defense™ Platinum sheathing, GreenGlass® sheathing, eXPTM sheathing, GlasRoc® sheathing, SecurockTM glass-mat sheathing, and DensGlass® exterior sheathing; DensElement (sheathing only), gypsum sheathing (ASTM C79/C1396); Exposure I or exterior plywood (Grade C/D or better); or Exposure I OSB; Huber Zip (sheathing only).

PROJECT TYPES

Exterior and Interior application.
Rain screen or direct-applied adhered veneer façades; envelope upgrades where air/water control, drainage, and CI are required alongside thin masonry aesthetics.

DESCRIPTION

Old Mill Panel+ Wall System is an integrated, code-oriented exterior veneer solution that combines a vapor-permeable air/water-resistive barrier (AWB), molded EPS continuous-insulation panels, and a polymer-modified adhesive/basecoat, with accessories and either adhesive or mechanical attachment. The system is engineered to receive thin brick, stone, or tile claddings while controlling air, water, and thermal performance in one coordinated assembly.

Two installation pathways are available to match project constraints and substrates:

- **Fluid-Applied Adhesive** — The AWB is roller/spray/trowel applied to form a continuous membrane; Old Mill Adhesive is then combed to create vertical drainage beads and bond the EPS foam panels, producing a fully laminated CI substrate ready for adhered veneers. This path emphasizes continuity of environmental control layers and speed on solid or nailable sheathing.

- **Mechanically Fastened** — A drainable building wrap is installed behind the EPS foam panels, which are secured with Old Mill washers and corrosion-resistant fasteners to framing/sheathing, providing CI plus a profiled, alignment-true veneer base. This path is suited to framed walls and jobsite conditions favoring mechanical attachment.

Core components deliver system performance: the AWB provides low air leakage with vapor permeability and has been evaluated for NFPA 285 use in compliant assemblies; the EPS panels (ASTM C578, Type II, 15 psi) supply stable long-term R-value with tongue-and-groove alignment and built-in drainage/ventilation; and the adhesive/basecoat supplies bond, reinforcement, and skim-coat capabilities for masonry veneers.

ADVANTAGES
Continuous Insulation & Substrate in One: Replaces separate insulation boards and masonry backer, reducing wall thickness and labor.
Reliable Thermal Efficiency: Stable R-value that will not drift, with R-4.2 per inch
Moisture & Drainage Management: Integral vertical channels promote rapid water egress and ventilation behind cladding.
Fire-Tested Assemblies: Listed NFPA 285 compliant wall assemblies available when combined with Panel+ air/water barrier and joint treatments.
Sustainable Choice: Low-GWP formulation, recyclable EPS core, GREENGUARD Gold certification, and EPD for transparent carbon accounting.
Quality Assurance: Every batch tested to ASTM C578 density, R-value, water absorption, and dimensional stability requirements; UL and ICC-ES oversight.
Qualifies for a 5 or 15 Year System Warranty

TECHNICAL INFORMATION

TEST	METHOD	RESULTS
Fire Propagation Characteristics (Full Exterior Assembly)	NFPA 285-19	Passed / Met Conditions of Acceptance. Flames did not propagate beyond the limits of the first story test room, and critical temperature limits were not exceeded.
Structural Performance (Uniform Static Air Pressure / Wind Load)	ASTM E330	Passed structural test pressure of +/-150.0 psf with no failures
Freeze-Thaw Resistance (System Durability)	ASTM E2485 / E2485M-13 Method A	Passed. No deleterious effects, such as cracking, crazing, blistering, peeling, delamination, or erosion, were observed on the thin brick or stone veneer samples after 60 cycles
Surface Burning Characteristics (Assembly over Drywall)	ASTM E84-08	Flame Spread: 0; Smoke Developed: 0 (OMB System over 1/2" Sheetrock).
Surface Burning Characteristics (Assembly over OSB)	ASTM E84-08	Flame Spread: 0; Smoke Developed: 5 (OMB System over OSB, Tyvek)

WALL ASSEMBLY APPLICABLE STANDARDS

The Panel+ Wall System, when installed as an exterior assembly, is tested against and conforms to the intent of the following standards and building codes for complete wall performance:

NFPA 285-19: Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components.

ASTM E330: Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.

ASTM E2485/E2485M-13: Standard Test Method for Freeze/Thaw Resistance of EIFS and Water Resistive Barrier Coatings.

ASTM E84: Standard Method of Test for Surface Burning Characteristics of Building Materials.

ASTM C1088: Standard Specification for Thin Veneer Brick Units Made from Clay or Shale (applies to the veneer units used in the system).

IBC/IRC WRB & air barrier material intent: The Old Mill Weather Barrier component conforms to this standard intent when installed as part of the Panel+ system.

International Building Code (IBC) Sections 1405.9 and 1405.10: Structural testing was evaluated against the deflection requirements (e.g., L/600) for adhered masonry veneer installations specified in these sections

COMPONENT APPLICABLE STANDARDS

Component Standards (Old Mill Weather Barrier)
- ASTM E2178: Determining Air Leakage Rate and Calculation of Air Permeance of Building Materials.
- ASTM E2357: Determining Air Leakage Rate of Air Barrier Assemblies.
- ASTM E331: Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
- ASTM E96: Standard Test Methods for Water Vapor Transmission of Materials.
- ASTM E84: Standard Method of Test for Surface Burning Characteristics of Building Materials.
- ASTM E2134: Evaluating the Tensile-Adhesion Performance of EIFS.
- ASTM D2247: Testing Water Resistance of Coatings in 100% Relative Humidity.

Component Standards (Old Mill Adhesive Mix)
- ANSI A118.4: Standard Specification for Latex-Modified Portland Cement Mortar.
- ASTM C109: Standard Test Method for Compressive Strength of Hydraulic Cement Mortars.
- ASTM C297: Standard Test Method for Flatwise Tensile Strength of Sandwich Constructions.
- CAN/ULCS114: Standard Method of Test for Determination of Non-Combustibility in Building Materials.

Component Standards (Old Mill EPS Foam Panel)
- ASTM C578: Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation.
- ASTM C518: Steady-State Thermal Transmission Properties by Heat Flow Meter Apparatus.
- ASTM D1621: Compressive Properties of Rigid Cellular Plastics.
- ASTM E84: Surface Burning Characteristics of Building Materials.

Component Standards (Thin Brick Veneer Units)
- ASTM C1088: Standard Specification for Thin Veneer Brick Units Made from Clay or Shale.
- ASTM C-67: Standard Test Methods for Sampling and Testing Brick and Structural Clay Tile

APPLICATION

Old Mill PANEL+ can be installed using one of two approved methods, selected based on project requirements, substrate type, and environmental conditions:

1. **Fluid-Applied Adhesive Method** – Recommended for both solid and nailable substrates when a continuous air and water barrier is required as part of the wall assembly. This method integrates Old Mill Air & Water Barrier with Old Mill Adhesive for a fully bonded installation.
2. **Mechanically Fastened Method** – Recommended for applications where panels are secured directly to framing or sheathing using corrosion-resistant fasteners and Old Mill washers. This method incorporates a drainable building wrap behind the panels.

FLUID-APPLIED ADHESIVE

Substrate Preparation

- Solid Substrates (brick, block, concrete, CMU):
  a. Apply a uniform 10 mil WFT (wet film thickness) coat of Old Mill Air & Water Barrier over the entire wall surface.
  b. After a minimum of 20 minutes, apply a second 10 mil WFT coat for a total 20 mil coverage.
  c. Protect from precipitation and freezing; allow a minimum 18-hour cure before panel installation.
- Nailable Substrates (OSB, plywood, exterior gypsum):
  d. Apply a 10 mil WFT coat of Old Mill Air & Water Barrier.
  e. Immediately embed Old Mill Polylaminate Reinforcing Fabric at all sheathing joints and outside corners, pressing from center outward with a trowel. Overlap fabric runs by at least 2½ inches.
  f. After a minimum of 20 minutes, apply an additional 15 mil WFT coat over the entire surface.
  g. Protect from precipitation and freezing; allow 12–24 hours cure before panel installation.

Panel Installation

1. Begin at an outside corner, ensuring panels overlap at corners. For inside corners, position panels to allow space for a backer rod and sealant.
2. Remove bottom alignment track for the first course if a full row of thin brick is to be installed at base.
3. Apply Old Mill Adhesive to the cured Air & Water Barrier with a ½-inch notch trowel, combing vertically to form moisture drainage channels.
4. Engage tongue-and-groove joints, staggering vertical seams by at least 16 inches.
5. Maintain ¼-inch clearance at window/door openings and flashing interfaces.
6. Cut panels cleanly with a utility knife to fit as required.

TECHNICAL SUPPORT

Tech Services: 1-888-264-6455
Web: oldmillbuildingproducts.com
Manufactured in the USA

MECHANICALLY FASTENED

Substrate Preparation

- Install a drainable building wrap over the entire wall surface where Old Mill Panel+ will be applied, in accordance with building code and manufacturer's instructions.

Panel Installation

1. Position panel starting at the bottom outside corner, level and flush with the wall base.
2. Secure panels through sheathing into framing members using corrosion-resistant screws with Old Mill 2-inch plastic washers. Fasteners must penetrate framing at least 1 inch beyond the sheathing.
3. Fastener placement:
   - Every 16 inches horizontally along framing members
   - Every 8 inches vertically along panel height
   - Additional fasteners around panel perimeters and at openings
4. Fasteners must be seated so the washer face is flush with the panel surface—do not overdrive.
5. Engage tongue-and-groove joints; stagger vertical seams by at least 16 inches.
6. Maintain ¼-inch clearance at wall penetrations, openings, and flashing transitions.
7. Remove bottom alignment track for the first course if a full row of thin brick is to be installed at base.

WARRANTY

Duration

- Standalone (product-only): Limited 5-year material warranty for Old Mill Adhesive Mix when used as an individual product and installed per this TDS and Old Mill specifications.
- Full System: Limited 15-year warranty when Old Mill Adhesive Mix is installed as part of the complete Panel+ Wall System™ by Old Mill Building Products.

Conditions & Registration

- Install, detail, and maintain strictly per this TDS and Old Mill instructions.
- Claims: Notify Old Mill of any alleged defect within 30 days of discovery; allow inspection and provide documentation.

System Coverage Requirements (Panel+ Wall System)
Use of the complete Old Mill Panel+ Wall System is required for 15-year coverage, including: (1) Old Mill Air & Water Barrier Liquid with joint tape and joint fabric; (2) Old Mill Adhesive; (3) Old Mill anchorage materials (Plastic 2" washers, screws, etc.) per instructions; (4) Panel+ Insulation Board; and (5) Brick/Stone/Tile procured through Old Mill.

Exclusions (summary)
Abuse, misuse, improper maintenance; structural defects or building movement; unauthorized alterations; component substitutions or intermixing with unapproved materials; and damage from external causes (e.g., impacts, fire, floods, pests, corrosives, or other natural events). Refer to the current Old Mill Panel+ Wall System Warranty for the complete list of exclusions, sole remedy, limitation of liability, and governing law.

For full terms and to request warranty registration, contact Old Mill Building Products or visit OldMillBuildingProducts.com.

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