

Specification for Fluid-Applied, Vapor-Permeable Air/Water-Resistive Barriers

NOTES TO SPECIFIER

The guide specification has been assembled to assist design professionals in the development of project specifications for fluid-applied, vapor permeable air/water-resistive barriers. This Guide Specification uses SENERSHIELD-R and accessory products as the Basis of Design. It is intended for use in conjunction with BASF Corporation - Wall Systems (hereinafter referred to as "BASF Wall Systems") product and technical bulletins. Please note that more than one subcontractor may be involved in the scope of work defined by this Guide Specification, as indicated in Section 1.01 B. If the intention is for one subcontractor to assume responsibility for the entire air/water-resistive barrier, Section 1.01 B should be omitted.

DESIGN RESPONSIBILITY

It is the responsibility of both the specifier and the purchaser to determine if a product is suitable for its intended use. The designer selected by the purchaser shall be responsible for all decisions pertaining to design, detail, structural capability, attachment details, shop drawings and the like. BASF Wall Systems has prepared guidelines in the form of specifications, typical application details, and product bulletins to facilitate the design process only. BASF Wall Systems is not liable for any errors or omissions in design, detail, structural capability, attachment details, shop drawings or the like, whether based upon the information provided by BASF Wall Systems or otherwise, or for any changes which the purchasers, specifiers, designers or their appointed representatives may make to BASF Wall Systems published comments.

Please note that air seals at any joints/gaps between adjoining components (penetrations, etc.) are of primary importance to maintain continuity of an air barrier system and must be considered by the design professional in the overall wall assembly design. Stucco claddings require the use of a slip sheet installed over SENERSHIELD-R to prevent adhesion of stucco.

SECTION 072726

FLUID-APPLIED, VAPOR-PERMEABLE AIR AND WATER-RESISTIVE BARRIER

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. General Conditions, Supplementary Conditions, Instructions to Bidders and Division One General Requirements shall be read in conjunction with and govern this section.
- B. This specification shall be read as a whole by all parties concerned. Each Section may contain more or less than the complete Work of any trade. The Contractor is solely responsible to make clear to the Subcontractors the extent of their Work.

1.02 SECTION INCLUDES

- A. Ready mixed resilient, fluid applied, vapor permeable, air/water-resistive barrier for use behind most exterior wall claddings.
- B. Materials and installation methods to bridge and seal air leakage pathways and gaps including:
 - 1. Connections of walls to foundations
 - 2. Connections of walls to the roof air barrier
 - 3. Seismic and expansion joints
 - 4. Openings and penetrations in the building envelope
 - 5. Masonry ties, screws, bolts and similar penetrations
 - 6. All other leakage pathways through opaque walls
- C. Materials and installation methods to create a water-resistive barrier suitable for use as part of a secondary drainage system for brick, natural and manufactured stone veneers, EIFS, metal composite, siding and most other cladding systems.

- D. Refer to all drawings and other sections of this specification to determine the type and extent of work therein affecting the work of this section, whether or not such work is specifically mentioned herein.

1.03 RELATED SECTIONS

- A. Section 03 00 00 Concrete substrate
- B. Section 04 00 00 Masonry substrate
- C. Section 05 40 00 Cold-formed metal framing
- D. Section 06 11 00 Wood framing
- E. Section 06 16 00 Sheathing
- F. Section 07 62 00 Sheet metal flashing and trim
- G. Section 07 65 00 Flexible flashing
- H. Section 07 90 00 Joint protection
- I. Section 08 00 00 Openings
- J. Section 08 50 00 Windows
- K. Section 09 22 16 Non-structural metal framing
- L. Section 09 29 00 Gypsum board

1.04 DEFINITIONS

- A. Air Barrier Material: A building material that is designed and constructed to provide the primary resistance to airflow through an air barrier assembly.
- B. Air Barrier Assembly: The collection of air barrier materials and auxiliary materials applied to an opaque wall, including joints and junctions to abutting construction, to control air movement through the wall.
- C. Water-Resistive Barrier Assembly: The collection of water-resistive materials and accessories that direct incidental water that may pass the primary rain screen out of the wall cladding while providing protection for underlying sheathing materials.

1.05 REFERENCES

- A. Building Codes
 - 1. ICC-ES Acceptance Criteria for Water Resistive Coatings used as Water Resistive Barrier Over Exterior Sheathing, AC 212
 - 2. ICC-ES Acceptance Criteria for Flexible Flashing Materials, AC 148/AAMA 711-07
 - 3. Massachusetts Building Code
- B. American Society for Testing and Materials (ASTM) Standards
 - 1. C920 Specifications for Elastomeric Joint Sealants
 - 2. C1177 Specification for Glass Mat Gypsum Substrate for Use as Sheathing
 - 3. C1396 Standard Specification for Gypsum Board
 - 4. C1193 Guide for Use of Joint Sealants
 - 5. D412 Standard Test Methods for Rubber Properties in Tension
 - 6. D4258 Practice for Surface Cleaning Concrete for Coating
 - 7. D4263 Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method
 - 8. D4541 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers
 - 9. E84 Test Method for Surface Burning Characteristics of Building Materials
 - 10. E96 Test Methods for Water Vapor Transmission of Materials
 - 11. E283 Test Method for Determining the Rate of Air Leakage through Exterior Windows, Curtain Walls and Doors under Specified Pressure Differences across the Specimen
 - 12. E330 Standard Test Method for the Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Pressure Difference
 - 13. E331 Standard Test Method for Water Penetration of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure
 - 14. E1105 Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Doors, Skylights and Curtain Walls by Uniform or Cyclic Static Air Pressure Difference
 - 15. E2178 Standard Test Method for Air Permeance of Building Materials
 - 16. E2357 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies

1.06 PERFORMANCE REQUIREMENTS

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- A. General: Air/water-resistive barrier shall be capable of performing as a continuous vapor-permeable air barrier and as a liquid-water drainage plane flashed to discharge to the exterior incidental condensation or water penetration. At wall cladding transitions, the air/water-resistive barrier shall form a continuous air barrier and shall make provision for water drainage, either by creation of an unobstructed drainage plane that extends across the cladding transition or by flashing to discharge to the exterior at the transition. Air barrier assemblies shall be capable of accommodating substrate movement and sealing substrate expansion and control joints, construction material changes, and transitions at perimeter conditions without deterioration and air leakage exceeding specified limits, or interruption of the drainage plane.
- B. Commonwealth of Massachusetts Building Code Requirements: Comply with the following subsections of 780 CMR 13, Section 1304.3 Air Leakage.
- 1304.3.1 Air Barriers:
The building envelope shall be designed and constructed with a continuous air barrier to control air leakage into, or out of the conditioned space. An air barrier shall also be provided for interior partitions between conditioned space and space designed to maintain temperature or humidity levels which differ from those in the conditioned space by more than 50% of the difference between the conditioned space and design ambient conditions. The air barrier shall have the following characteristics:
1. It must be continuous, with all joints made airtight.
 2. It shall have an air permeability not to exceed 0.02 l/m² under a pressure differential of 75 Pa (equal to 0.004 cfm/ ft² @ 1.57 psf) when tested in accordance with ASTM E2178.
 3. It shall be capable of withstanding positive and negative combined design wind, fan and stack pressures on the envelope without damage or displacement, and shall transfer the load to the structure. It shall not displace adjacent materials under full load.
 4. It shall be durable or maintainable.
 5. The air barrier shall be joined in an airtight and flexible manner to the air barrier material of adjacent systems, allowing for the relative movement of systems due to thermal and moisture variations and creep. Connection shall be made between:
 - a. Foundation and walls.
 - b. Walls and windows or doors.
 - c. Different wall systems.
 - d. Wall and roof.
 - e. Wall and roof over unconditioned space.
 - f. Walls, floor and roof across construction, control and expansion joints.
 - g. Walls, floors and roof to utility, pipe and duct penetrations.
 6. All penetrations of the air/water-resistive barrier and paths of air infiltration/exfiltration shall be made airtight.
- C. Fluid-Applied Membrane Performance Requirements

TEST	REQUIREMENTS
Air Leakage of Air Barrier Assemblies ASTM E 2357	Maximum 0.007 l/s.m ² (0.0014 cfm/ft ²)
Air Permeance of Building Materials ASTM E 2178	Maximum 0.02 l/s.m ² @ 75 Pa (0.004 cfm/ft ² @ 1.57 psf)
Rate of Air Leakage ASTM E 283	Maximum 0.02 l/s.m ² @ 75 Pa (0.004 cfm/ft ² @ 1.57 psf)
Pull-Off Strength of Coatings ASTM D 4541	Minimum 110 kPa (15.9 psi) adhesion or substrate failure
Surface Burning ASTM E 84	Flame spread <25 Smoke developed < 450
Nail Sealability ASTM D 1970	No water penetration at galvanized roofing nail penetration under 127 mm (5") head of water after 3 days at 4° C (40° F)
Water Vapor Transmission ASTM E 96 Method B	Minimum 10 perms
Volatile Organic Compounds (VOC) ASTM D 2369	Maximum 50 g/l

ICC-ES AC 212 Acceptance Criteria for Water-Resistive Coatings used as Water-Resistive Barriers over Exterior Sheathing

Sequential Testing - Structural, Racking, Restrained Environmental Conditioning and Water Penetration

1. Structural: ASTM E 1233 Procedure A	No cracking at joints or interface of flashing after 90 min @ 137 Pa (2.86 psf)
2. Racking: ASTM E 72	No cracking at joints or interface of flashing after 90 min @ 137 Pa (2.86 psf)
3. Restrained Environmental Conditioning: ICC-ES AC 212	No cracking at joints or interface of flashing after 90 min @ 137 Pa (2.86 psf)
4. Water Penetration: ASTM E 331	No water penetration after Structural, Racking and Restrained Environmental Conditioning

Sequential Testing - Weathering

1. UV Light Exposure: ICC-ES AC 212	No cracking or bond failure to substrate
2. Accelerated Aging: ICC-ES AC 212	No cracking or bond failure to substrate
3. Hydrostatic Pressure Test: AATCC 127-1985	No water penetration

Freeze-Thaw ASTM E 2485 (Method B)	No visible effects (cracking checking, delamination, erosion) after 10 cycles when viewed at 5X magnification
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Water Resistance ASTM D 2247	No sign of deleterious effects after 14 day exposure
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Tensile Bond ASTM C 297	>103kPa (15 psi) avg; no failure of the lamina after 10 cycles
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Tensile Bond (before & after freeze-thaw) ASTM C 297	>103 kPa (15 psi) avg; no failure of the lamina after 10 cycles freeze-thaw
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ICC-ES AC 148 Acceptance Criteria for Flexible Flashing Materials

Sequential Testing - Weathering

1. UV Light Exposure: ICC-ES AC 148	No visible surface or structural changes when observed under 5X magnification
2. Accelerated Aging: ICC-ES AC 148	No visible surface or structural changes when observed under 5X magnification
3. Hydrostatic Pressure Test: AATCC 127-1985	No signs of failure after UV and Accelerated Aging

Peel Adhesion ASTM D 3330 Method F	All samples meet the minimum requirement of .263 N/mm (1.5 lbs/in)
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UV Exposure	No visible surface or structural changes when observed under 5X magnification
Accelerated Aging	No visible surface or structural changes when observed under 5X magnification
After Elevated Temperature	No visible surface or structural changes when observed under 5X magnification
After Water Immersion	No signs of failure after UV and Elevated Temperature Exposure

Nail Sealability after Thermal Cycling ASTM D 1970 (Modified), AAMA 711	No water penetration at galvanized roofing nail penetration under 32 mm (1.25") head of water after 24 hours at 4° C (40° F)
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Tensile Strength after UV Exposure ASTM D 5034, AAMA 711	All samples meet the minimum requirement of 3.5 N/mm (20 lbs/in)
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Cold Temperature Pliability ASTM D 1970, AAMA 711	No cracking after bending around a 25 mm (1") mandrel after 2 hour exposure to -18° C (0° F)
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Resistance to Peeling AAMA 711	No signs of distress or failure after 24 hours of exposure at room temperature, 50° C (122° F), 65° C (149° F), 80° C (176° F)
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1.07 SUBMITTALS

- Submit under provisions of Section [01 33 00]
- Manufacturer's technical data sheets and material safety data sheets for products and accessories.
- Shop drawings showing locations and extent of air/water-resistive barrier system including details of typical conditions, intersection and transitions with other envelope systems and materials.

1.08 QUALITY ASSURANCE

- Manufacturer: Minimum 10-years experience in the production and marketing of waterproofing materials.

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- B. Air/water-resistive barrier membrane manufacturer shall provide an ICC-ES Evaluation Report confirming compliance with AC 212 Acceptance Criteria for Water-Resistive Coatings used as Water-Resistive Barriers over Exterior Sheathing.
- C. Applicator Qualifications: An applicator experienced in applying air barrier materials similar in material, design and extent to those indicated for this project, whose work has resulted in applications with a record of successful in-service performance.
 - 1. Knowledgeable in the proper use and handling of BASF Wall Systems products.
 - 2. Employ skilled installers who are experienced and knowledgeable in air/water resistive barrier application, and familiar with the requirements of the specified work.
 - 3. Provide the proper equipment, manpower and supervision on the job site to install the system in compliance with BASF Wall Systems published specifications.
- D. Regulatory Requirements: Conform to applicable code requirements for air/water-resistive barriers.
- E. Primary materials including fluid-applied air/water-resistive barrier membrane, sheathing fabric, flashing primer and transition membranes shall be sourced from one manufacturer regularly engaged in production of air barrier materials.
- F. Mockups: Before beginning installation of air/water-resistive barrier, provide air/water-resistive barrier work for exterior wall assembly mockups, incorporating backup wall construction, external cladding, window, door frame and sill, insulation, and flashing to demonstrate surface preparation, crack and joint treatment, and sealing of gaps, terminations, and penetrations of air barrier membrane.
 - 1. Coordinate construction of mockup to permit inspection by Owner's testing agency of air/water-resistive barrier before external insulation and cladding is installed.
 - 2. If Architect determines mockups do not comply with project requirements, reconstruct mockups and apply air/water resistive barrier until mockups are approved.
- G. Pre-Installation Conference: A pre-installation conference shall be held prior to commencement of field operations to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work. Pre-installation conference shall include the Architect, General Contractor and Applicator. Agenda for meeting shall include but not be limited to the following:
 - 1. Review of submittals.
 - 2. Review of surface preparation, minimum curing period and installation procedures.
 - 3. Review of special details and flashings.
 - 4. Sequence of construction, responsibilities and schedule for subsequent operations.
 - 5. Review of mock-up requirements.
 - 6. Review of inspection, testing, protection and repair procedures.
- H. Coordination of trades
 - 1. The Architect, General Contractor and Applicator shall evaluate adjacent materials such as windows, doors, etc. for conformance to project details. Adjacent trades shall provide scaled shop drawings for review by the Architect.
 - 2. The General Contractor shall make provision for installation of air seals between the primary air barrier and other wall components (penetrations, etc.) in order to maintain continuity of an air barrier system.
 - 3. The Applicator shall provide protection of rough openings before installing windows, doors, and other penetrations through the wall.

1.09 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store and handle products under provisions of Section [01 65 00] [01 66 00] [].
- B. Deliver all materials in original unopened packages with manufacturer's labels intact.
- C. Protect all materials during transportation and installation to avoid physical damage.
- D. Store materials in cool, dry place protected from freezing. Store at no less than 4°C (40°F).
- E. Store materials away from direct sunlight and extreme heat.
- F. Store all accessory products in a cool, dry place protected from exposure to moisture.

1.10 PROJECT/SITE CONDITIONS

- A. Do not apply materials in ambient temperatures below 4°C (40°F). Provide properly vented, supplementary heat during installation and drying period when temperatures less than 4°C (40°F) prevail.
- B. Do not apply materials to frozen surfaces.
- C. Maintain ambient temperature at or above 4°C (40°F) during and at least 24 hours after application of all materials and until dry.

1.11 WARRANTY

- A. Provide the Manufacturer's minimum 5-year Limited Materials warranty under provisions of Section [01 70 00] [].
 - 1. Comply with Manufacturer's applicator registration requirements and notification procedures to assure qualification for warranty.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

The fluid applied vapor-permeable, air/water-resistive barrier membrane, sheathing fabric, transition membrane and flashing primer shall be obtained or approved as a single-source from the membrane manufacturer to ensure system compatibility and integrity.

- A. Basis of Design: SENERSHIELD-R air/water-resistive barrier manufactured by BASF Corporation - Wall Systems, Jacksonville, Florida.
- B. BASF Wall Systems' products are listed in this specification to establish a standard of quality. Any substitutions to this specification shall be submitted to and receive approval from the Architect at least 10 days before bidding. Proof of equality shall be borne by the submitter. To be considered equal, products must meet or exceed performance requirements shown in Section 1.06.

2.02 MATERIALS

- A. SENERSHIELD-R fluid-applied air/water-resistive barrier membrane.
- B. SHEATHING FABRIC reinforced non-woven polyester fabric.
- C. Transition membranes: SENERFLASH polyester-faced 30-mil thick self-sealing, self-healing rubberized asphalt coating; SENERWRAP 20-mil thick self-sealing rubberized asphalt coating laminated to polyethylene film.
- D. Flashing Primer: FLASHING PRIMER water-based primer.

2.03 AUXILIARY MATERIALS

- A. General: Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
- B. Flashing: provide flashing that complies with prevailing local building codes.
- C. Sealant: Sonneborn Sonolastic 150 with VLM Technology manufactured by BASF Corporation. Alternate sealants must meet ASTM C920 criteria and be approved for this application by the sealant manufacturer.
- D. Polyurethane Foam Sealant: Approved by polyurethane foam sealant manufacturer for compatibility with air/water-resistive barrier materials.

PART 3 EXECUTION

3.01 EXAMINATION

- A. General Contractor shall verify project site conditions under provisions of Section [01 00 00].
- B. Walls
 - 1. Substrates
 - a. Air/water-resistive barrier acceptable substrates: ASTM C1177 type sheathings, including DensGlass™ exterior sheathing, e²XP™ sheathing, GlasRoc® sheathing, Securock™ glass-mat sheathing, Weather Defense™ Platinum sheathing, GreenGlass® sheathing, PermaBase™ cement-board by National Gypsum and other cement-boards (ASTM C1325 Type A Exterior), untreated Exposure I or exterior plywood sheathing (grade C-D or better), untreated Exposure I OSB, Gypsum sheathing (ASTM C79/ASTM C1396), poured concrete/unit masonry. Consult the BASF Wall Systems Technical Services Department for all other applications.
 - b. Wall sheathing must be securely fastened per applicable building code and sheathing manufacturer's requirements.
 - c. Examine surfaces to receive air/water-resistive barrier and verify that substrate and adjacent materials are dry, clean, sound, and free of releasing agents, paint, or other residue or coatings. Verify substrate is flat, free of fins or planar irregularities greater than 6.4 mm in 3 m (1/4" in 10'). Verify that no excess mortar exists on masonry ties, shelf angles and other obstructions.
 - d. Verify that concrete is visibly dry and free of moisture.
 - e. Verify that masonry joints are struck flush and completely filled with mortar.
 - 2. Flashings
 - a. All flashings must be installed in accordance with specific design and building code requirements. Where appropriate, end-dams must be provided.

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- b. Openings must be flashed prior to window/door, HVAC, etc. installation. Windows and openings shall be flashed according to design and building code requirements.
 - c. Individual windows that are ganged to make multiple units require continuous head flashing and the joints between the units must be fully sealed.
 3. Kick-out flashing
Kick-out flashing must be installed leak-proof and angled (min 100°) to allow for proper drainage and water diversion.
 4. Air Seals
Install between the primary air/water-resistive barrier and other wall components (penetrations, etc.) in order to maintain continuity of the air barrier system.
 - C. Report all unsatisfactory conditions to the General Contractor. Application of fluid-applied air/water-resistive barrier shall not proceed until all unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Protect all surrounding areas and surfaces from damage and staining during application of air/water-resistive barrier.
- B. Protect finished work at end of each day.

3.03 MIXING

General: No additives are permitted unless specified in product mixing instructions. Close containers when not in use. Prepare in a container that is clean and free of foreign substances. Do not use a container which has contained or been cleaned with a petroleum-based product. Clean tools and equipment with water immediately after use. Dried material can only be removed mechanically.

- A. Air/water-resistive barrier
 1. SENERSHIELD-R
Mix SENERSHIELD-R with a clean, rust-free paddle and drill until thoroughly blended. Do not add water to SENERSHIELD-R.
 2. FLASHING PRIMER
Mix FLASHING PRIMER for approximately 1-minute, to a uniform consistency. Do not add water to FLASHING PRIMER.

3.04 APPLICATION

General: Apply products in accordance with current application procedures and in accordance with project requirements. Refer to Wall Systems Air/Water-Resistive/Vapor Barrier Application Guidelines technical bulletin

- A. Air/water-resistive barrier
 1. Substrate shall be installed per substrate manufacturer's instructions. Substrate shall be dry, clean, sound and free of release agents, paint or other residue or coatings. Verify substrate is flat, free of fins or planar irregularities greater than 6.4 mm in 3 m (1/4" in 10'). Unsatisfactory conditions shall be reported to the general contractor and corrected before application of the air/water-resistive barrier materials.
 2. Wrap openings with SHEATHING FABRIC by applying mixed SENERSHIELD-R to all surfaces and immediately embedding SHEATHING FABRIC. If necessary, apply a second coat of SENERSHIELD-R over the SHEATHING FABRIC ensuring a continuous, void- and wrinkle- free membrane application (wet-on-wet spray application is acceptable).
 3. Spot all fasteners and precoat sheathing joints, terminations, inside and outside corners with mixed SENERSHIELD-R using a 101 mm (4") wide by 20 mm (3/4") nap roller, brush or spray.
 4. a. Immediately place and center SHEATHING FABRIC over wet SENERSHIELD-R at all sheathing joints, terminations, inside and outside corners, as well as knot holes and check cracks that may exist in plywood or OSB. Ensure SHEATHING FABRIC extends evenly on both sides of the sheathing joint.
 - b. Lap SHEATHING FABRIC 63.5 mm (2 1/2") minimum at intersections.
 - c. Allow to dry to the touch before applying SENERSHIELD-R to entire wall surface. If spraying, wet-on-wet application is acceptable.
 5. a. Apply SENERSHIELD-R to DensGlass™ exterior sheathing, e²XP™ sheathing, GlasRoc® sheathing, Securock™ glass-mat sheathing, Weather Defense™ Platinum sheathing, GreenGlass® sheathing, PermaBase™ cement-board by National Gypsum and other cement-boards (ASTM C1325 Type A Exterior) and gypsum sheathing (ASTM C79/ASTM C1396) with a 20 mm (3/4") nap roller, stainless steel trowel, brush or spray gun to a consistent, minimum 10 wet mil thickness that is free of voids and pin holes. A fully loaded roller pad is required

to obtain a consistent, minimum 10 wet mil thickness. Back-rolling may be needed to produce a pinhole-free film.
Note: Refer to *Spray Application* technical bulletin for spray application equipment and application instructions.

- b. Apply SENERSHIELD-R to plywood, OSB or CMU substrate(s) with a 20 mm (3/4") nap roller or spray to a consistent, minimum 10 wet mil thickness. Prior to application of the second coat, visually inspect to assure sheathing surface is blister free and coating is free of voids and pinholes. Repair if needed and then apply a second coat after the initial coating is sufficiently dry. **Note: A minimum of two (2) 10-mil wet coats of SENERSHIELD-R is required over OSB, plywood and CMU. SENERSHIELD-R may be sprayed to a 20-mil thickness over OSB and plywood in one wet application. For spray application, back-rolling may be needed to produce a pinhole-free film.**
6. Limit the weather exposure of SENERSHIELD-R to a maximum of 180 days. Verify surfaces are free of dirt, contaminants, or other deleterious conditions before application of cladding. Report and correct any such conditions prior to cladding application. Dry/cure times of adhesively applied EPS insulation board installed over SENERSHIELD-R may be prolonged, particularly in cool and/or damp weather. Non-cementitious adhesives are not recommended for EPS insulation board attachment to SENERSHIELD-R. Proper application is the responsibility of the user.
- B. Transition material installation
1. Install SENERSHIELD-R / SHEATHING FABRIC and/or SENERWRAP/SENERFLASH and sealant in accordance with project details & specifications to form a seal with adjacent construction and maintain a continuous air/water-resistive barrier.
 - a. General Contractor shall make provision to coordinate the installation of air barrier with installation of roofing membrane and base flashing to ensure continuity of air barrier with roofing membrane.
 - b. General Contractor shall make provision to install strip on roofing membrane or base flashing so that a minimum of 75 mm (3") of coverage is achieved over both substrates.
 2. Apply FLASHING PRIMER to substrates scheduled to receive transition membrane as required and at required amount. Apply SENERWRAP OR SENERFLASH as soon as possible after FLASHING PRIMER is dry and tacky. Limit priming to areas that will be covered with SENERWRAP or SENERFLASH on the same day. Re-prime areas exposed for more than 24 hours. Using a wallpaper roller, extension-handled counter top roller or weighted hand roller, firmly roll the SENERWRAP OR SENERFLASH to the area being sealed. As the SENERWRAP OR SENERFLASH is applied, pull more of the release film from the SENERWRAP OR SENERFLASH, exposing the adhesive surface, pressing down on the SENERWRAP OR SENERFLASH with a roller and keeping the SENERWRAP OR SENERFLASH smooth.
 3. General Contractor shall make provision to:
 - a. Connect and seal exterior wall air/water-resistive barrier membrane continuously to roofing membrane air/water-resistive, concrete below-grade structures, floor-to floor construction, exterior glazing and window systems, glazed curtain-wall systems, storefront systems, exterior louvers, exterior door framing, and other construction interfaces used in exterior walls, using accessory materials.
 - b. Apply joint sealants forming part of air/water-resistive barrier assembly within sealant manufacturer's recommended application procedures.
 - c. Fill gaps in perimeter frame surfaces of windows, curtain walls, storefronts, and doors, and miscellaneous penetrations of air/water-resistive barrier membrane with foam sealant.
 4. Flashing Membranes: As required by project design, prime perimeter frame surfaces of windows, curtain walls, store fronts, and doors. Apply SENERWRAP or SENERFLASH transition strip so that a minimum of 75 mm (3") of coverage is achieved over both.
 5. Repair punctures, voids, and deficient lapped seams in strips and transition strips. Slit and flatten "fish mouths" and blisters. Patch with transition strips extending 150 mm (6") beyond repaired areas in strip direction.

3.05 CLEANING AND PROTECTION

- A. Clean and protect completed construction under provisions of Sections [01 74 00] [01 76 00]
- B. Applicator shall protect air/water-resistive barrier system from damage during application. General Contractor shall make provision to protect air/water-resistive barrier during the remainder of construction period. Repair any damage that may occur after installation in a manner consistent with the scope and intent of this specification.
- C. Clean spills, stains, and soiling from construction that would be exposed in the completed work using cleaning agents and procedures recommended by manufacturer of affected construction.
- D. Remove masking materials after installation.

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NOTE

BASF Wall Systems is an operating unit of BASF Corporation (herein referred to as "BASF Wall Systems")

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Printed in U.S.A. 10/11