Senerflex® Adhered Mat Design
Water Drainage Class PB Exterior Insulation and Finish System incorporating an unobstructed drainage plane and air/water-resistive barrier

System Overview
DESCRIPTION
SENERFLEX ADHERED MAT DESIGN is a water-drainage design Class PB Exterior Insulation and Finish System EIFS. The system offers design flexibility, aesthetic appeal and energy savings. Integrated system components include reinforced air/water-resistive barrier, adhesive, EPS insulation board, reinforced base coat and 100% acrylic polymer finish. Finishes are available in a limitless color selection. Performance enhancement options, include increased resistance to dirt pick-up and mildew, protection protection against high impact, and specialty finishes that create stone-like, metallic or mottled stucco appearances. SENERFLEX ADHERED MAT DESIGN complies with ASTM E 2568, ASTM E 2273 and has passed rigorous tests including Full-Scale Fire, Wind-Load, Wind-Driven Rain, and Large and Small Missiles.

The system features easy installation, proven durability and low maintenance.

Apply the system directly to the following acceptable sheathings: 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, Securock™ glass-mat sheathing, and DensGlass® exterior sheathing; gypsum sheathing (ASTM C79/C1396); Exposure I or exterior plywood (Grade C/D or better); or Exposure I OSB.

USES
For exterior walls in new and retrofit commercial, institutional and residential construction that are not suitable for direct adhesive attachment or when a water-drainage design is desired or required to satisfy code issues related to drainage, and where high wind-load capacity is a design consideration.

ADVANTAGES
• Rated highest wind load capacity of all EIFS choices
• Incorporates a monolithic secondary air/water-resistive barrier
• Provides a drainage plane for directing incidental moisture out of the wall assembly
• Seamless wall surface provides high resistance to potential water intrusion from rain and other environmental sources
• Seamless exterior blanket of insulation provides high R values, lowers heating and cooling costs
• Potentially allows downsized HVAC systems
• Ability to achieve any architectural style with unlimited design options
• Economical architectural detailing
• Does not require control joints; flexible
• Fade-, crack-, abrasion- and dirt-resistant finishes
• Multiple options for impact resistance improve functional design, ease of maintenance
• Wide selection of standard colors, custom colors, and finish textures

DESIGN CONSIDERATIONS
Expansion Joints
Required in the following locations:
• Where movement is anticipated (e.g., floor lines, canopies, carpports, porte-cocheres, etc.)
• Where EIFS meets dissimilar materials (e.g., windows, doors, transitions to brick or other siding)
• Where substrate materials change
• At floor lines in wood frame construction where movement or cross grain shrinkage is anticipated
• At structural or existing expansion joints
• Minimum expansion joint size per design as required for structural movement.

Horizontal Applications
Minimum slope: 1:2 with maximum width of 30.5 cm (12”) [e.g. 15 cm in 30.5 cm (6” in 12”) width].

Substrate
• Maximum substrate design deflection is L/240.
• Consult the framing and sheathing manufacturer for design and application considerations.

Air/Water-Resistive Barrier
• Sheathing must be protected with either SENERSHIELD, SENERSHIELD-R or SENERSHIELD-VB water-resistive barrier, installed per applicable building code and manufacturer’s requirements.

Sealants, Backer Rod, Flashing
• Approved sealant installed with approved backer rod or bond breaker tape shall be used at all transitions between EIFS and other elements such as windows, doors, vents, penetrations, transitions to dissimilar elements, etc.
• Flashing at windows, doors, chimneys, transitions between EIFS and roof and at other points specified shall be installed in accordance with component manufacturer’s instructions.

BEST PRACTICES FOR INSTALLERS
General
• All flashing should be installed per codes prior to the installation of SENERFLEX ADHERED MAT DESIGN.
• A mock-up of the SENERFLEX ADHERED MAT DESIGN system showing all components should be prepared using the same tools and skills that will be used in actual construction, and the sample should be kept at the jobsite during construction.
• Do not use below grade; system must terminate a minimum of eight inches above grade.
• Pail components must be kept at a minimum of 4°C (40°F) during shipping and storage. A minimum temperature of 4°C (40°F) is required during application of all components and until completely dried.
• Protect dry (bagged) products from moisture. EPS insulation boards should be stored flat, out of direct sunlight.
• No additives are permitted to any components, unless approved by BASF Wall Systems
• Follow the application instructions for each component.
• Expansion joints are required: where SENERFLEX ADHERED MAT DESIGN meets other materials; where substrate materials change; at floor lines in wood frame construction where movement or cross grain shrinkage are anticipated; and anywhere else that movement is anticipated.
• All substrates must be clean, dry and sound without planar irregularities greater than 6.3mm in 3m (1/4" in 10').

Insulation Boards
• All system terminations and penetrations must be back-wrapped with mesh and base coat.
• EPS board size is limited to 610mm x 1220 (2' x 4'). The minimum thickness of EPS at any point on the wall can not be less than 19mm (3/4"). Consider this when installing reveals.
• Do not break reinforcing mesh in the reveal; offset 100mm–152mm (4–6") minimum. Do not align reveals with insulation board joints; offset 100mm–152mm (4–6") minimum.
• Offset insulation board joints from sheathing joints by a minimum of 406mm (16"). Offset from corners of doors, windows and other penetrations by a minimum of 100mm (4").
• Insulation boards must be a single piece around corners of penetrations.
• Stagger joints in a running bond pattern offset a minimum of 152mm (6").
• Interlock corners.
• Prior to installation of the base coat, entire EPS covered wall must be completely rasped to remove high and low spots and to remove dust from the surface of the EPS.
• Use a 13mm x 13mm x 50mm (1/2" x 1/2" x 2") notched trowel to apply adhesive to back of insulation boards.
• If using mechanical fasteners, use only those specified by BASF Wall Systems and install according to specifications. Do not overdrive mechanical fasteners. They should recess only 1.6mm (1/16") from surface.
• Always fill voids in insulation layer greater than 1.6mm (1/16") with slivers of insulation and not with base coat or other materials.

Reinforced Base Coat
• FLEXXGUARD 4/INTERMEDIATE 6/INTERMEDIATE 12 mesh must overlap a minimum of 2 1/2".
• Use STRONG 15/HI-IMPACT 20 at ground floor and on other locations where high traffic is expected. STRONG 15/HI-IMPACT 20 must not overlap; butt edges together. After STRONG 15/HI-IMPACT 20 are embedded in base coat, that layer must be covered by a second layer of Reinforcing Mesh 4 and base coat.
• Install "butterflies" of Reinforcing Mesh at corners of all windows, doors and other penetrations.
• Install a second layer of Reinforcing Mesh a minimum of 100mm (4") on both sides of inside and outside corners.
• Mesh color or prominent mesh pattern should never be visible through the base coat.
• Special shapes must also be reinforced with base coat and reinforcing mesh.
• Protect work from precipitation for a minimum of 24 hours.

Finish
• Use only stainless steel trowels.
• Avoid working in direct sunlight.
• Finishes should be applied with adequate man power, tools and staging to keep a wet edge.
• A primer tinted to the color of the finish is recommended prior to application of rilled finishes.
• Do not run finish into joints.
• Do not quit in the middle of a wall; run to natural breaks.
• Do not use different batches of finish on the same elevation.
• Protect from precipitation for a minimum of 24 hours.
• Use only sealants that are acceptable for use with this system. Acceptable sealants and backer rods or bond breakers must be installed at all transitions between this system and other wall assembly elements such as windows, doors, vents, transitions to dissimilar materials, A/C cases, and other penetrations.
• Do not apply finish over sealants.
LIMITATIONS

- Use only for above grade vertical walls.

KEY UPGRADES AVAILABLE:
System upgrades can include the addition of high-impact resistant reinforcing mesh, specialty finishes, silicone enhanced textured finishes to improve dirt pick up and mildew resistance, and tinted primers to enhance final aesthetics.

SPECIFICATIONS & DETAILS
The contents of this system overview are intended to provide the design professional information required to evaluate this assembly against specific project requirements. Further useful information to support the creation of a project manual such as a guide specification, product bulletins, and assembly details are available on the Senergy website at www.senergy.basf.com.

TECHNICAL SUPPORT
For answers to questions or specific recommendations about this assembly, please consult our website at www.senergy.basf.com or contact our Technical Services Department: Toll-free 800-589-1336.

HEALTH & SAFETY
Follow good safety and industrial hygiene practices during handling and installing products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read material safety data sheets and related literature on products before specification and/or installation.

WARRANTY

Refer to the Senergy EIFS and Coating Warranty Schedule for specific information about this product/system.

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