Senturion II
Water-drainage, mechanically attached Class PB EIFS incorporating a secondary air/water-resistive barrier

System Overview
DESCRIPTION
SENURION II Wall System is a water-drainage Class PB EIFS that includes a secondary air/weather barrier and channeled insulation boards to protect against moisture and evacuate incidental moisture. The system offers design flexibility, aesthetic appeal and energy savings. Integrated system components include secondary air/weather barrier or air/weather-resistive barrier, mechanical attachment, channeled 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 against high impact, and specialty finishes that create stone-like, metallic or mottled stucco appearances. SENTURION II Wall System has passed rigorous tests including Full-Scale Fire, 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, eXP™ 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 or retrofit light commercial and residential wood-frame construction when a water-drainage EIFS is desired or required to satisfy code issues related to drainage, and where high wind-load capacity is not a design consideration.

ADVANTAGES
• 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
• Cost-effective
• Allows downsizing of HVAC systems
• Provides the ability to achieve any architectural style with unlimited design options
• Economical architectural detailing
• Does not require control joints
• Fade-, crack-, abrasion- and dirt-resistant finishes
• Multiple options for impact resistance improve functional design, ease of maintenance
• Wide selection of finish textures, 128 standard colors and unlimited custom colors

DESIGN CONSIDERATIONS
General
• Wind-load requirements may limit the use of this system. The design wind-load shall not exceed the system’s allowable wind-load as stated in applicable code reports.
• SENERSHIELD is not approved for use over wood-based sheathings. Use SENERSHIELD-R or SENERSHIELD-VB over wood-based sheathings.
• Details shall conform with BASF Wall Systems recommendations and shall be consistent with the project requirements.
• Use high impact mesh for ground floor applications in high traffic areas.
• Consult the framing and sheathing manufacturer for design and application considerations.
• Limit the use of dark colors to bands. Heat build up behind dark colors can adversely affect the performance of EPS insulation. Use of colors with a light reflectance value of less than 20% require the approval of BASF Wall Systems’ Technical Department.
• Do not use below grade; system must terminate a minimum of eight inches above grade.

Expansion Joints
Required in the following locations:
• Where movement is anticipated (e.g., floor lines, canopies, carports, 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: 13 mm (1/2”) or 4 times anticipated movement. Minimum 19 mm (3/4”) expansion joint 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, SENERSHIELD-VB or other code approved secondary moisture protection barrier, installed over the sheathing 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 SENTURION II Wall System.
- A mock-up of the Senturion II Wall 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 8” above grade.
- Pail components must be kept at a minimum of 4°C (40°F) (10°C/50°F for AURORA TC-100, AURORA STONE, ALUMINA and BOREALIS Finishes) during shipping and storage. A minimum temperature of 4°C (40°F) (10°C/50°F for AURORA TC-100, AURORA STONE, ALUMINA and BOREALIS Finishes) 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.
- Follow the application instructions for each component.
- Expansion joints are required; where Senturion II Wall System 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. Expansion joints should be a minimum of 1/2” or four times the anticipated movement as determined by a design professional.
- All substrates must be clean, dry and sound without planar irregularities greater than 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 2’ x 4’. The minimum thickness of EPS at any point on the wall can not be less than 1”. Consider this when installing reveals. 1 1/2” minumum EPS is recommended.
- Do not break reinforcing mesh in the reveal; offset 4–6” minimum. Do not align reveals with insulation board joints; offset 4–6” minimum.
- Offset insulation board joints from sheathing joints by a minimum of 16”. Offset from corners of doors, windows and other penetrations by a minimum of 4”.
- Insulation drainage channels should align from course to course.
- Insulation boards must be a single piece around corners of penetrations.
- Stagger joints in a running bond pattern offset a minimum of 24”.
- 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 only mechanical fasteners specified by BASF Wall Systems and install according to specifications. Do not overdrive mechanical fasteners. They should recess only 1/16” from surface.
- Always fill voids in insulation layer greater than 1/16” with slivers of insulation and not with base coat or other materials.

**Reinforced Base Coat**
- Pre-spot each washer head on mechanical fasteners with base coat.
- FLEXGUARD 4 Reinforcing Mesh/INTERMEDIATE 6/INTERMEDIATE 12 must overlap a minimum of 2 1/2”.
- STRONG 15/HI-IMPACT 20 mesh must not overlap; butt edges together. After STRONG 15/HI-IMPACT 20 mesh are embedded in base coat, a second layer of FLEXGUARD 4/INTERMEDIATE 6/INTERMEDIATE 12 and base coat must cover that layer.
- Install “butterflies” of Flexguard 4 at corners of all windows, doors and other penetrations.
- Install a second layer of reinforcing mesh a minimum of 4” on both sides of inside and outside corners.
- Mesh color should never be visible through the base coat.
- Special shapes must also be reinforced with base coat and reinforcing mesh.
This system is not designed for horizontal applications. Always maintain a minimum slope of 1:2 up to a maximum width of 12”.

**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.
- 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**
- Wind-load requirements may limit the use of this system.
- Use only for above ground vertical walls.
- SENERSHIELD is not approved for use over wood based sheathings.

**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.

BASF warrants this product to be free from manufacturing defects and to meet the technical properties on the current Product Bulletin, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. BASF MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of BASF. In the absence of an extended warranty issued by BASF, any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. BASF WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND. Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on BASF's present knowledge and experience. However, BASF assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. BASF reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.