

## Senturion Wall Systems

Water-drainage, mechanically attached Class PB EIFS incorporating a water-resistive barrier

### DESCRIPTION

Senturion Wall Systems are water-drainage Class PB EIFS that include a water-resistive barrier to protect against moisture and provide an unobstructed drainage plane to drain incidental moisture. The systems offer design flexibility, aesthetic appeal and energy savings. 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 Wall Systems 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.

### Integrated system components include:

**Senturion I** - Tyvek StuccoWrap, DrainWrap or CommercialWrap D air/water-resistive barrier, mechanically attached EPS insulation board, Senergy Base Coat, Reinforcing Mesh and 100% acrylic polymer finish.

**Senturion II** - an air/water-resistive barrier, mechanically attached channeled EPS insulation board, Senergy Base Coat, Reinforcing Mesh and 100% acrylic polymer finish.

**Senturion III** - an air/water-resistive barrier, Drainage Mat, mechanically attached EPS insulation board, Senergy Base Coat, Reinforcing Mesh and 100% acrylic polymer finish.

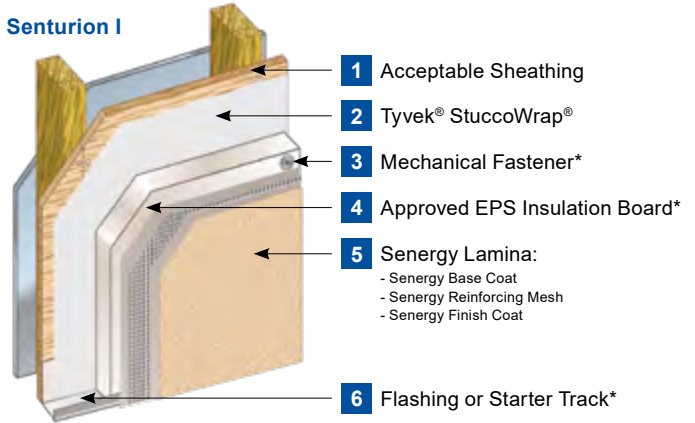
The system features easy installation, proven durability and low maintenance. Apply the system directly to the following acceptable substrates:

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, e2XP™ sheathing, GlasRoc® sheathing, Securock™ glass-mat sheathing, and DensGlass® and DensElement exterior sheathing; gypsum sheathing (ASTM C79/C1396); Exposure I or exterior plywood (Grade C/D or better); or Exposure I OSB, Huber Zip.

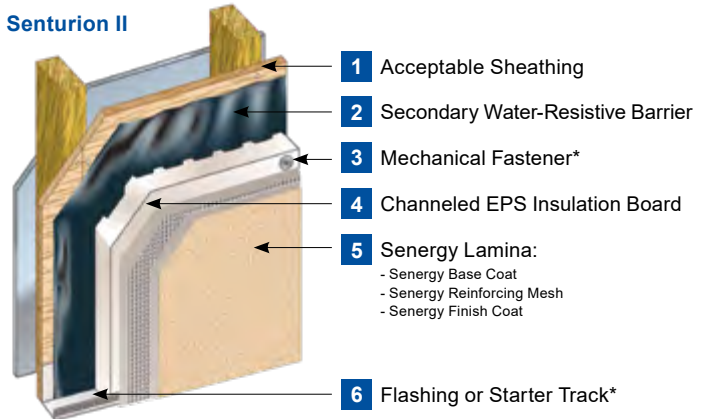
### USES

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.

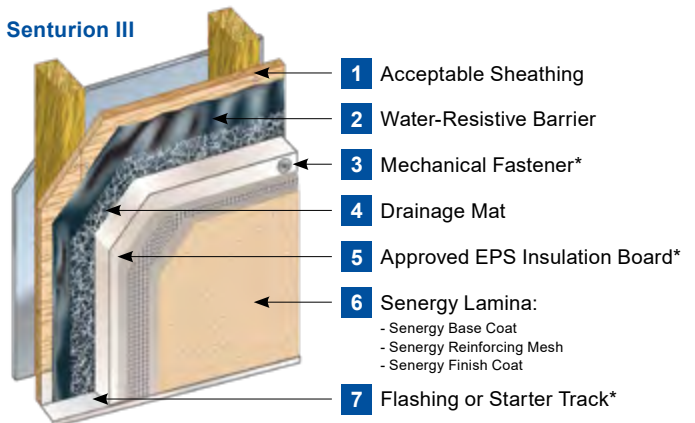
Senturion I



Senturion II



Senturion III



\*By Others

## 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
- Potentially 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 standard colors, custom colors, and finish textures

## DESIGN CONSIDERATIONS

### General

- Wind-load requirements may limit the use of this system. The design wind-load shall not exceed the system's allowable windload as stated in applicable code reports.
- Details shall conform with Senergy's recommendations and shall be consistent with the project requirements.
- Use high impact mesh for ground floor applications in high traffic areas.
- 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% is not recommended.
- 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: per design for anticipated 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.

### Water-Resistive Barrier

- Sheathing must be protected with code approved 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.

## 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 [senergy.master-builderssolutions.com/en](http://senergy.master-builderssolutions.com/en).

## TECHNICAL SUPPORT

For answers to questions or specific recommendations about this assembly, please consult our website at [senergy.master-builders-solutions.com/en](http://senergy.master-builders-solutions.com/en) or contact our Technical Services at 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.

## SYSTEM PERFORMANCE

TEST	METHOD	CRITERIA	RESULTS
<b>EIFS and EIFS with Drainage</b>	ASTM E2568 and ICC-ES AC 235	-	Meets all performance requirements
<b>Senturion I Drainage Efficiency</b>	ASTM E2273	90% Minimum	95.3% with Tyvek Stuccowrap
<b>Senturion II Drainage Efficiency</b>	ASTM E2273	90% Minimum	98.5% with Grade D Building Paper
<b>Senturion III Drainage Efficiency</b>	ASTM E2273	90% Minimum	98.1% with Grade D Building Paper
<b>Water Penetration</b>	ASTM E 331	No water penetration after 15 min. @ 137 Pa (2.86 psf)	Pass
<b>Radiant Heat Exposure</b>	NFPA 268	No ignition at 20 minutes	Met test criteria with 4" thick EPS insulation.
<b>Fire Endurance</b>	ASTM E119	Maintain fire resistance of existing rated assembly	1 hour rating with maximum 4" thick EPS insulation
<b>Surface Burning</b>	ASTM E84 / UL 723	Flame spread < 25	All components of the system meet Class A performance (FS < 25; SD < 450)
<b>Abrasion Resistance</b>	ASTM D968	No Cracking or loss of film integrity at 528 qt. (500L) of sand	Finish Coat not worn through after 686 liters of falling sand
<b>Accelerated Weathering</b>	ASTM G 153 (formerly G23)	No deleterious effects after 2000 hours.	Pass
<b>Accelerated Weathering</b>	ASTM G 154 (formerly G53)	No deleterious effects after 2000 hours.	Pass No deleterious effects after 7500 hours.
<b>Mildew Resistance</b>	Mil Std 810B Method 508	No fungus growth after 28 days	Pass
<b>Water Penetration</b>	ASTM E 331	No water penetration after 15 min. @ 137 Pa (2.86 psf)	Pass
<b>Salt Fog Resistance</b>	ASTM B117	No deleterious effects after 300 hours	Pass
<b>Water Resistance of Coating in 100% R.H.</b>	ASTM D 2247	No deleterious effects after 14 days exposure	Pass

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