Senergy®

BUILDING TRUST

Senturion Wall Systems

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

SYSTEM 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 and offering design flexibility, aesthetic appeal and energy savings.

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, SikaWall 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:

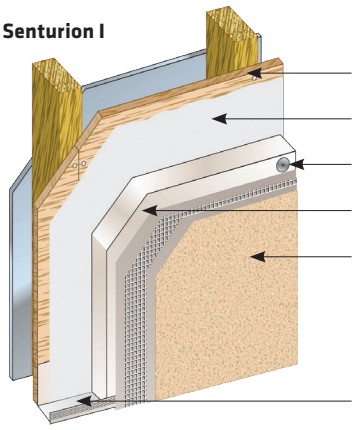
ACCEPTABLE SUBSTRATES

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 DenseElement exterior sheathing; gypsum sheathing (ASTM C79/C1396); Exposure I or exterior plywood (Grade C/D or better); or Exposure I OSB, Huber Zip (Senturion II & III Only).

USES

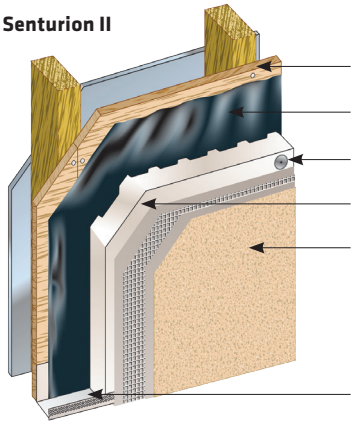
For exterior walls in new or retrofit light commercial and residential wood frame construction when a water-drainage EIFS is desired or required to satisfy code issues related to drainage, and where high wind-load capacity is not a design consideration.

Senturion I



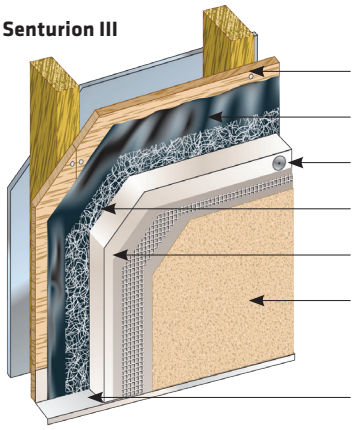
- Acceptable Substrate*
- Tyvek® StuccoWrap® DrainWrap™ or CommercialWrap® D*
- Mechanical Fastener*
- Approved EPS Insulation Board*
- Senergy Lamina:
  - Senergy Base Coat
  - Senergy Reinforcing Mesh
  - Senergy Finish Coat
- Flashing or Starter Track*

Senturion II



- Acceptable Substrate*
- Code Compliant Water-Resistive Barrier*
- Mechanical Fastener*
- Channeled EPS Insulation Board*
- Senergy Lamina:
  - Senergy Base Coat
  - Senergy Reinforcing Mesh
  - Senergy Finish Coat
- Flashing or Starter Track*

Senturion III



- Acceptable Substrate*
- Code Compliant Water-Resistive Barrier*
- Mechanical Fastener*
- SikaWall Drainage Mat
- Approved EPS Insulation Board*
- Senergy Lamina:
  - Senergy Base Coat
  - Senergy Reinforcing Mesh
  - Senergy Finish Coat
- Flashing or Starter Track*

*By Others

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 6" above grade.
- Typical locations for system expansion joints are at building expansion joints, at prefabricated panel joints, floor lines of wood frame construction or where slip tracks are used in steel frame construction, where substrates change and where structural movement is anticipated. It is the sole responsibility of the project design team, including the architect, engineer, etc., to ultimately determine specific expansion joint placement, width and design. Detail specific locations in construction drawings.
- Minimum slope: 1:2 with maximum width of 30.5 cm (12") [e.g. 15 cm in 30.5 cm (6" in 12") width].
- Maximum substrate design deflection is L/240.
- 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 usa.sika.com/senergy.

TECHNICAL SUPPORT

For answers to questions or specific recommendations about this assembly, please consult our website at usa.sika.com/senergy or contact our Sika Facades Technical Services at 800-589-1336.

Senturion Wall Systems

SYSTEM PERFORMANCE			
TEST	**Method**	**Criteria**	**Results**
EIFS and EIFS with Drainage	ASTM E2568 and ICC-ES AC 235	-	Meets all performance requirements
Senturion I Drainage Efficiency	ASTM E2273	90% Minimum	95.3% with Tyvek Stuccowrap
Senturion II Drainage Efficiency	ASTM E2273	90% Minimum	98.5% with Grade D Building Paper
Senturion III Drainage Efficiency	ASTM E2273	90% Minimum	98.1% with Grade D Building Paper
Water Penetration	ASTM E 331	No water penetration after 15 min. @ 137 Pa (2.86 psf)	Pass
Radiant Heat Exposure	NFPA 268	No ignition at 20 minutes	Met test criteria with 4" thick EPS insulation.
Fire Endurance	ASTM E119	Maintain fire resistance of existing rated assembly	1 hour rating with maximum 4" thick EPS insulation
Surface Burning	ASTM E84 / UL 723	Flame spread < 25	All components of the system meet Class A performance (FS < 25; SD <450)
Abrasion Resistance	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
Accelerated Weathering	ASTM G 153 (formerly G23)	No deleterious effects after 2000 hours.	Pass
Accelerated Weathering	ASTM G 154 (formerly G53)	No deleterious effects after 2000 hours.	Pass No deleterious effects after 7500 hours.
Mildew Resistance	Mil Std 810B Method 508	No fungus growth after 28 days	Pass
Water Penetration	ASTM E 331	No water penetration after 15 min. @ 137 Pa (2.86 psf)	Pass
Salt Fog Resistance	ASTM B117	No deleterious effects after 300 hours	Pass
Water Resistance of Coating in 100% R.H.	ASTM D 2247	No deleterious effects after 14 days exposure	Pass

WARRANTY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com/senergy or by calling SIKA Facades' Technical Service Department at 1-800-589-1336. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS. Sale of SIKA products are subject to the Terms and Conditions of Sale which are available at usa.sika.com.

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