

Senerflex Channeled Insulation Design

Water Drainage Class PB Exterior Insulation and Finish System incorporating a channeled EPS insulation board and air/water-resistive barrier

DESCRIPTION

Senerflex Channeled Insulation Design is a water-drainage Class PB EIFS. The system uses a secondary air/water-resistive barrier, vertical beads of adhesive and channels in the back of the insulation board to provide an added level of protection of the sheathing and cavity against moisture and air intrusion. It offers design flexibility, aesthetic appeal and energy savings. Integrated system components include an air/water-resistive barrier, adhesive, EPS insulation board, reinforced base coat 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, eXPTM sheathing, GlasRoc® sheathing, Securock™ glass-mat sheathing, DensGlass® exterior sheathing; gypsum sheathing (ASTM C79/C1396); Exposure I or exterior plywood (Grade C/D or better); or Exposure I OSB, and Huber Zip® Wall Sheathing.

Note: Use of Huber Zip Tape is not allowed with Senergy Channeled Adhesive Design EIFS.

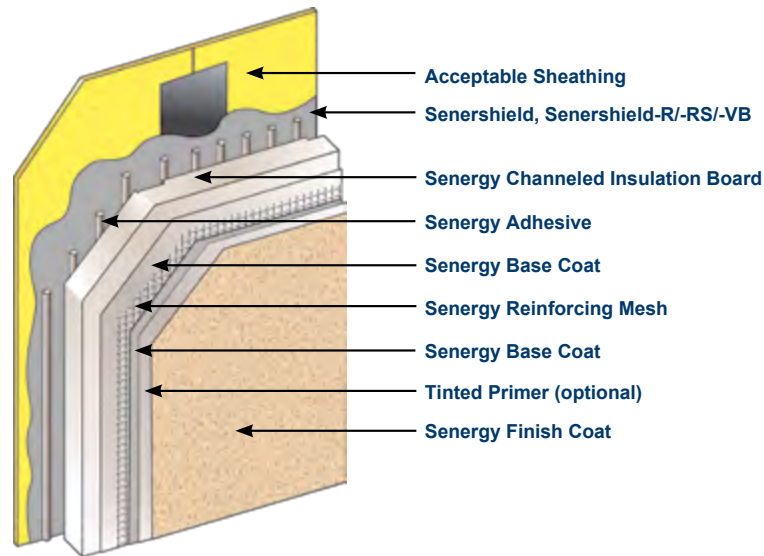
USES

For exterior walls in new and retrofit commercial, institutional and residential construction when a rainscreen or water drainage Class PB EIFS is desired or required to satisfy code issues related to drainage, and where high wind-load requirements dictate the use of adhesive attachment.

ADVANTAGES

- Incorporates a monolithic secondary air/water-resistive barrier
- Channeled EPS insulation board 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; flexible
- Fade-, crack-, abrasion- and dirt-resistant
- Multiple options for impact resistance improve functional design, ease of maintenance
- Wide selection of standard colors, custom colors, and finish textures

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DESIGN CONSIDERATIONS

- Expansion joints are required in the system where they exist in the substrate, where the system adjoins dissimilar construction, at changes in substrates and at floor lines in multilevel wood frame construction.
- Minimum expansion joint size: 13 mm (1/2") or 4 times anticipated movement. Minimum 19 mm (3/4") expansion joint required for structural movement.
- A minimum 6:12 slope is required on all horizontal surfaces greater than 1".
- Maximum substrate design deflection is L/240. Consult the framing and sheathing manufacturer for design and application considerations.
- Substrate must be protected with either Senershield, Senershield-R/-RS/-VB installed over the sheathing per applicable building code and manufacturer's requirements.
- Create drainage channels with vertical adhesive ribbons, installed in accordance with Senerflex Channeled Insulation Design specification.
- Use high impact mesh for ground floor applications in high traffic areas.
- 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 3/4". Consider this when designing and installing reveals.
- 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 Channeled Insulation Design.
- A mock-up of the Senerflex Channeled Insulation 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 job site 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 and Alumina Finishes) during shipping and storage. A minimum temperature of 4°C (40°F) (10°C/50°F for Aurora TC-100, Aurora Stone and Alumina 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.
- All substrates must be clean, dry and sound without planar irregularities greater than 1/4" in 10'.
- This system is not designed for horizontal applications. Always maintain a minimum slope of 1:2 up to a maximum width of 12".
- Protect work from precipitation for a minimum of 24 hours.

Insulation Boards

- All system terminations and penetrations must be back-wrapped with mesh and base coat.

- 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 boards must be a single piece around corners of penetrations.
- Stagger joints in a running bond pattern offset a minimum of 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.
- Channels in insulation boards and/or channels of adhesive on back of insulation boards must run in vertical patterns.
- Use a 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 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

- If mechanical fasteners were used to attach insulation, pre-spot each washer head 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 standard mesh 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 must never be visible through the base coat.
- Special shapes must also be reinforced with base coat and reinforcing mesh.

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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 senergy.master-builders-solutions.com/en.

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