

## Senerflex Vulcan NC

Water Drainage Class PB EIFS  
incorporating an Mineral Wool Insulation

### DESCRIPTION

Senerflex Vulcan NC is a water-drainage Class PB Exterior Insulation and Finish System (EIFS). The system uses a secondary air/water-resistive barrier and channels created by the trowel pattern of the adhesive to provide a cost-effective 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 reinforced air/water-resistive barrier, adhesive, mineral wool insulation, 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.

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

Apply the system directly to the following acceptable sheathings:

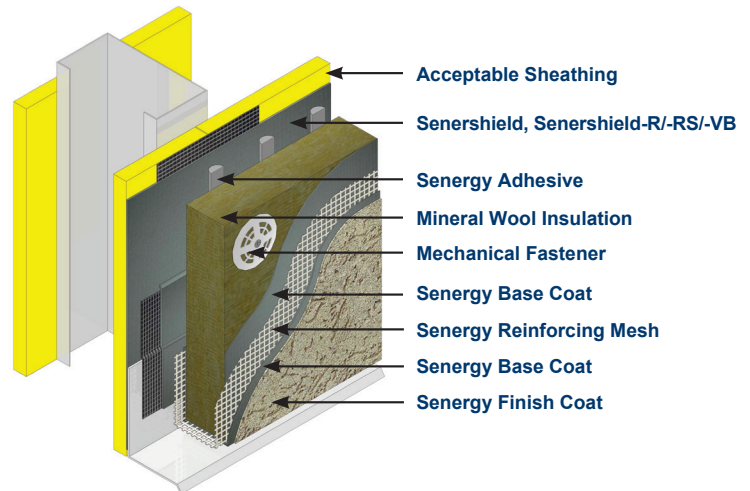
- ASTM C1177 type sheathings, including DensGlass™ exterior sheathing, eXP™ sheathing, GlasRoc® sheathing, Securock™ glass-mat sheathing, GreenGlass sheathing and Weather Defense Platinum sheathing
- PermaBase™ cement-board by National Gypsum and other cement-boards (ASTM C1325 Type A Exterior)
- Untreated Exposure I or exterior plywood sheathing (grade C-D or better)
- Untreated Exposure I OSB
- Poured concrete/unit masonry

### 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

- Noncombustible
- 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
- 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; flexible
- Fade-, crack-, abrasion- and dirt-resistant
- Multiple options for impact resistance improve functional design, ease of maintenance
- Wide selection of finish textures, standard colors and unlimited custom colors

## DESIGN CONSIDERATIONS

### 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 should be determined by a design professional.

### 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

- Substrate must be protected with either Senersshield, Senersshield-R, or Senersshield-VB installed per manufacturer's requirements.

### Drainage Cavity

- Create drainage channels with vertical adhesive ribbons, installed in accordance with Senerflex Vulcan NC system specification.

### General

- Use high impact mesh for ground floor applications in high traffic areas.

### 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 Vulcan NC system.

- A mock-up of the Senerflex Vulcan NC 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 203mm (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 6.3mm in 3m (1/4" in 10').
- All flashing should be installed per codes prior to the installation of Senerflex Vulcan NC system.

### Insulation Boards

- Ensure fibre orientation is perpendicular to the substrate on lamella application.
- All system terminations and penetrations must be back-wrapped with mesh and base coat.
- Board size is limited to 152 mm x 1220 mm (6" x 48") lamella strips or 610 mm x 1220 mm (2' x 4') slab type insulation.
- 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 102mm (4").
- Insulation boards must be a single piece around corners of penetrations.
- Stagger joints in a running bond pattern offset a minimum of 610mm (24").
- Interlock corners.
- Channels of adhesive on back of insulation boards must run in vertical patterns.
- Use a 13 mm x 13mm x 50 mm (1/2" x 1/2" x 2") notched trowel to apply adhesive to back of insulation boards.
- Use only those mechanical fasteners specified by Master Builders Solutions Wall Systems and install according to specifications. Do not overdrive mechanical fasteners. They should recess a maximum of 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

- Pre-spot each washer head of mechanical fasteners with base coat prior to final base coat application.
- Standard Reinforcing Mesh/Intermediate 6/Intermediate 12 must overlap a minimum of 64mm (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 Standard Reinforcing Mesh/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 100mm (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 305mm (12").
- 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.

## SYSTEM SPECIFICATIONS

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](http://senergy.master-builders-solutions.com/en).

## 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.

## 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 Department: Toll-free 800-589-1336.

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