

Senerflex GDC

Water Drainage Class PB EIFS incorporating an air/water-resistive barrier and a Geometrically Defined Drainage Cavity (GDDC)

DESCRIPTION

Senerflex GDC is a water-drainage Class PB EIFS. The system uses a secondary air/water-resistive barrier, vertical beads of adhesive and Geometrically Defined Drainage Cavity (GDDC) insulation boards to provide an added level of protection against moisture and air intrusion. It offers design flexibility, aesthetic appeal and energy savings. Integrated system components include reinforced air/water-resistive barrier, adhesive, 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.

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

Apply the system directly to the following acceptable sheathings:

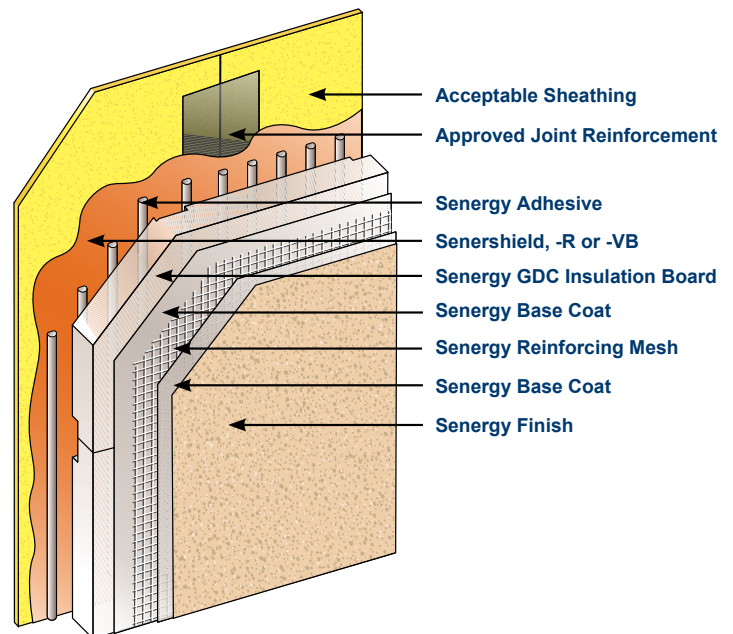
- ASTM C1177 type sheathings, including DensGlass™ exterior sheathing, eXP™ sheathing, GlasRoc® sheathing, Securock™ glass-mat sheathing, Weather Defense™ Platinum sheathing and GreenGlass® sheathing,
- PermaBase™ cement-board by National Gypsum and other cement-boards (ASTM C1325 Type A Exterior)
- 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

- Incorporates a monolithic secondary air/water-resistive barrier
- GDC insulation board provides a multi-directional 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 potential 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, 128 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 Senershield, Senershield-R, or senershield-vb installed per manufacturer's requirements.

Drainage Cavity

- Senerflex GDC Insulation Board provides a Geometrically Defined Drainage Cavity (GDDC).
- Vertical adhesive ribbons, installed in accordance with Senerflex GDC Specification, provide additional drainage capability.

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 structural 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 GDC.
- A mock-up of the Senerflex GDC 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 203 mm (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 6.4 mm in 3 m (1/4" in 10').
- All flashing should be installed per codes prior to the installation of Senerflex GDC.

Insulation Boards

- All system terminations and penetrations must be back-wrapped with mesh and base coat.
- EPS board size is limited to 610 mm x 1220 mm (2' x 4'), minimum thickness 38 mm (1 1/2"). The minimum thickness of EPS at any point on the wall can not be less than 19 mm (3/4"). Consider this when installing reveals.
- Do not break reinforcing mesh in the reveal; offset 102 mm - 152 mm (4 - 6") minimum. Do not align reveals with insulation board joints; offset 102 mm - 152 mm (4 - 6") minimum.
- Offset insulation board joints from sheathing joints by a minimum of 406 mm (16"). Offset from corners of doors, windows and other penetrations by a minimum of 102 mm (4").
- Insulation boards must be a single piece around corners of penetrations.
- Stagger joints in a running bond pattern offset a minimum of 610 mm (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.

- Channels in insulation boards and channels of adhesive on back of insulation boards must run in vertical patterns.
- Use a 13 mm x 13 mm x 50 mm (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 Master Builders Solutions Wall Systems and install according to specifications. Do not overdrive mechanical fasteners. They should recess only 1.6 mm (1/16") from surface.
- Always fill gaps in insulation layer greater than 1.6 mm (1/16") width 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.
- Standard Reinforcing Mesh/Intermediate 6/Intermediate 12 must overlap a minimum of 64 mm (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 comprised 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 102 mm (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 305 mm (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.

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 or contact our Technical Services Department: Toll-free 800-589-1336.

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