

Sentry Stucco CI Wall System

Water-drainage, mechanically-attached polymer-modified stucco system incorporating continuous external insulation and a water-resistive barrier



DESCRIPTION

Sentry Stucco CI Wall System is a continuously insulated, water-drainage stucco system that includes a water-resistive barrier to protect the substrate. The system offers design flexibility, aesthetic appeal and energy savings.

Integrated system components include mechanical fasteners, a water-resistive barrier, means of drainage, an XPS (extruded polystyrene) insulation board, base coat, reinforcing mesh, 100% acrylic polymer finish and other accessory components as described in the system specification and technical bulletins.

Apply the system over acceptable substrates:

- Exposure I or exterior plywood sheathing (Grade C-D or better), Exposure I OSB.
- PermaBase™ cement-board by National Gypsum and other cement-boards (ASTM C1325 Type A Exterior).
- ASTM C1177 type sheathings, including DensGlass™ exterior sheathing, e2XP™ sheathing, GlasRoc® sheathing, Securock™ glass mat sheathing; Weather Defense™ Platinum sheathing and GreenGlass® sheathing.
- Gypsum sheathing (ASTM C79/ASTM C1396).
- Concrete and unit masonry.

The Sentry Stucco CI Wall System is based upon the time tested Senerthik Wall System design that has passed rigorous tests including Full-Scale Fire, Wind-Load, Wind-Driven Rain, Abrasion Resistance and Moisture Drainage. Finishes are available in a limitless color selection and offer performance enhancement options, including increased resistance to dirt pick-up and mildew.

Sentry Stucco CI Wall System features exceptional durability and low maintenance.

USES

New or retrofit commercial and residential construction where continuous insulation and impact resistance are design considerations.

ADVANTAGES

- Blanket of continuous external insulation provides high R values, lowers heating and cooling costs
- Water-drainage design drains incidental moisture to the exterior
- Polymer modified base coat provides weather-, impact- and puncture-resistance
- Unlimited colors, textures and architectural details support design flexibility
- Crack-, abrasion- and dirt-resistant

DESIGN CONSIDERATIONS

- Maximum allowable deflection L/360: based on stud properties only.
- The design wind load shall not exceed the system's allowable wind load as stated in applicable code reports.
- Details shall conform with BASF Wall Systems' recommendations and shall be consistent with the project requirements.
- Control joints and trim accessories are required. Control joint placement is required in the Senergy Sentry Stucco CI Stucco Wall System every 144 ft².
- Consult the framing and sheathing manufacturer for design and application 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.
- System shall terminate at expansion joints.
- Sealant joints shall be detailed and installed per sealant manufacturer's recommendations.
- A minimum 6:12 slope is required on all horizontal surfaces greater than 1".
- Backer rod, sealant and flashing are required at door and window openings.

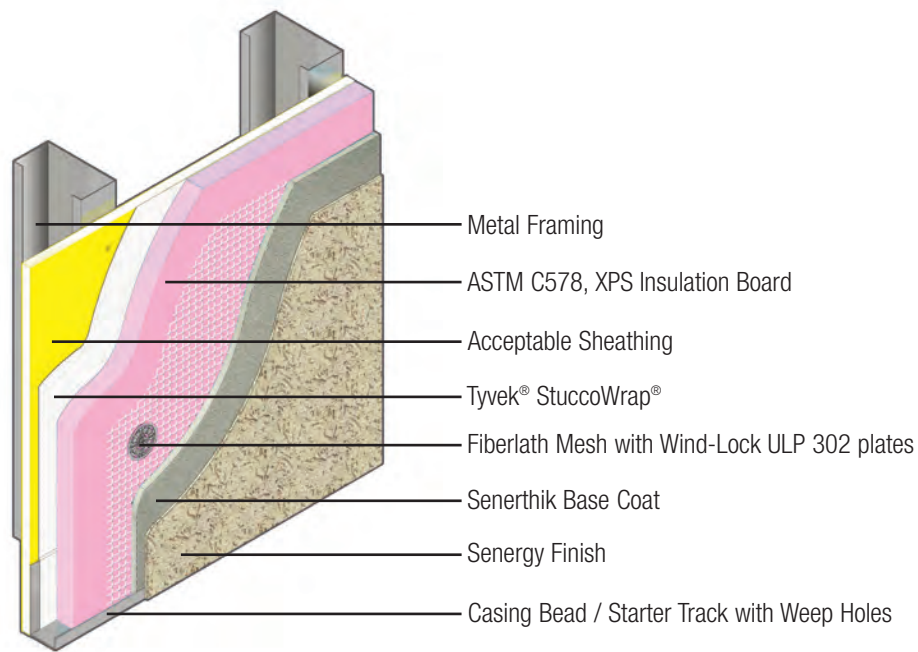
BEST PRACTICES FOR INSTALLERS

General

- All flashing should be installed per codes prior to the installation of Sentry Stucco CI Wall System.
- A mock-up of the Sentry Stucco CI Wall 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.
- It is recommended that the building should carry a minimum of 90 percent of the dead building load and that the interior gypsum should be installed prior to installation of the Sentry Stucco CI Wall System.
- Coordination of other trades is recommended so that wall penetrations for cable, electricity, water and vents are installed with proper enclosures prior to installation of the stucco.
- Pail components must be kept at a minimum of 4°C (40°F) and at a maximum of 43°C (110°F) during shipping and storage.
- A minimum temperature of 4°C (40°F) is required during application of liquid components and until completely dried.
- Protect dry (bagged) products from moisture.
- No additives are permitted to any components unless specifically approved by BASF Wall Systems.
- Follow the application instructions for each component.
- Windows and doors may permit some water to pass through the frame materials or joints. To reduce the potential for intruding water to degrade water-sensitive sheathing and framing, and to keep water out of the stud cavity, rough openings must be properly protected and a means provided to allow intruding water to escape.
- Sentry Stucco CI Wall System is not designed for soffit or ceiling applications.
- Do not use below grade; system must terminate a minimum of four inches above grade, or as required by code, a minimum 2" clearance above finish grade (sidewalk/concrete flatwork).

Framing/Sheathing

- Framing, plywood and OSB should have moisture content of less than 19 percent. Wet wood will shrink and deform, potentially resulting in cracking.
- Sheathing must be securely fastened per applicable building code and manufacturer's requirements. Sheathing must be attached with corrosion resistant fasteners.
- All substrates must be clean, dry and sound without planar irregularities greater than 1/4" in 10'.
- Sheathing must be protected with a weather resistant barrier installed over the sheathing per applicable building code and manufacturer's requirements.
- Sheathing must be installed according to code requirements in effect.



Sentry Stucco CI System

Insulation Boards

- XPS insulation board shall be stored flat, out of direct sunlight.
- XPS board thickness must be 1" to 2".
- Offset from sheathing joints by a minimum of 16". Offset from corners of doors, windows and other penetrations by a minimum of 4".
- Stagger joints in a running bond pattern offset a minimum of 24".
- Use only mechanical fasteners specified by BASF Wall Systems and install according to specifications. Do not overdrive mechanical fasteners. They should recess only 1/16" from surface.
- Always fill gaps in insulation layer greater than 1/16" with slivers of insulation and not with base coat or other materials.

Reinforced Base Coat

- Apply FIBERLATH MESH over insulation board with 76 mm (3") overlap at edges; secure through insulation and into substrate with mechanical fasteners at [406 mm (16") o.c. horizontally over masonry substrates] [406 mm (16") or 609 mm (24") o.c. horizontally over framing] and 304 mm (12") o.c. vertically.
- Install expansion joints and other joints as indicated on Drawings.
- SENERTHIK BASE COAT must be properly keyed into expanded flange of metal trim.
- Immediately trowel a second layer of mixed SENERTHIK BASE COAT to a thickness of approximately 4.8 mm (3/16"). Level BASE COAT with a metal or wood slicker to achieve a smooth, uniform surface; total thickness shall be 9 mm (3/8"), matching the height of grounds of trim accessories.
- Allow SENERTHIK BASE COAT to cure a minimum of 2 days prior to application of Primer and Finish Coat or architectural features.

Finish

- Use only stainless steel trowels.
- Avoid working in direct sunlight.
- Finishes should be applied with adequate manpower, 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 and required for stone finishes.
- Do not run finish into joints.
- Do not run finish over sealants.
- 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.

LIMITATIONS

- Wind-load requirements may limit the use of this system.
- XPS insulation cannot be rasped.

KEY UPGRADES AVAILABLE:

System upgrades can include the addition of SENERSHIELD-R as an air/water-resistive barrier, specialty finishes, silicone enhanced textured finishes to improve dirt pick up and mildew resistance, and tinted primers to enhance final aesthetics.

PRODUCT DATA—SIZES & PACKAGING

SENERTHIK BASE LIQUID is packaged in 18.1 kg 10-liter (40 lb, 5-gallon) pails. Mixed with one 42.6 kg (94 lb) bag of Portland cement, 68 - 98.7 kg (150 - 200 lbs) silica sand, and one package 0.45 kg (1 lb) of FIBERFILL, SENERTHIK BASE LIQUID yields approximately 7 m² (75 ft²) of coverage at 10 mm (3/8") thickness.

FIBERLATH MESH is packaged in 965 mm x 45.7 m (38" x 150') rolls.

SENERSHIELD-R, spray-, roller-, brush- or trowel-applied liquid air/water-resistant barrier, is packaged in 27.2-kg, 19-liter (60-pound, 5-gallon) pails. Approximate coverage rate per pail at 10 mils (wet) thickness varies depending upon substrate: DensGlass™ exterior sheathing [27.9–30.6 m² (300–330 ft²) (1 coat)], cement-board [27.9–37.2 m² (300–400 ft²) (1 coat)], exterior gypsum [46.1–53.3 m² (500–600 ft²) (1 coat)], OSB [23–32.2 m² (250–350 ft²) (2 coats)], plywood [23–32.2 m² (250–350 ft²) (2 coats)].

4" SHEATHING FABRIC for use with SENERSHIELD-R is packaged in 10.2 cm x 54.8 m (4" x 180') rolls.

9" SHEATHING FABRIC for use with SENERSHIELD-R is packaged in 22.9 cm x 54.8 m (9" x 180') rolls.

SENERWRAP 4 is available in 10.2 cm x 30.5 m (4" x 100') rolls, and SENERWRAP 9 is available in 22.9 cm x 30.5 m (9" x 100') rolls.

FLASHING PRIMER is packaged in 19-liter (5-gallon) pails and 3.8-liter (1-gallon) bottles. Coverage varies depending upon substrate.

Approximate coverage rate for ALPHA BASE COAT to embed FLEXGUARD 4 MESH is 15 m² (160 ft²) per 27.2-kg, 19-liter (60-pound, 5-gallon) pail.

FLEXGUARD 4 standard-weight Reinforcing Mesh at approximately 4.5 oz/yd² is available in 96.5 cm x 45.7 m (38" x 150') rolls. For wall system areas not expected to receive abnormal traffic or abuse.

Approximate coverage rate for ALPHA DRY BASE COAT to embed FLEXGUARD 4 is 11.1 m² (120 ft²) per 22.6-kg (50-pound) bag.

Approximate coverage rate for Senergy TINTED PRIMER is 69.6–116.1 m² (750–1,250 ft²) per 24.9-kg, 19-liter (55-pound, 5-gallon) pail.

SENERFLEX® and SILCOAT Finishes are packaged in 31.7-kg, 19-liter (70-pound, 5-gallon) pails. Approximate coverages per pail for various textures are: BELGIAN LACE [14.8 m² (160 ft²)], CLASSIC [13 m² (140 ft²)], COARSE [8.3 m² (90 ft²)], FINE [13 m² (140 ft²)], SAHARA [11.1 m² (120 ft²)], TEXTURE (coverage varies depending upon application).

Specialty Finishes are packed in 19-liter (5-gallon) pails. Approximate coverages per pail for various textures are: TC-100 [6.5–9.2 m² (70–100 ft²)], AURORA STONE [6.5 m² (70 ft²)], BOREALIS [6.5–9.2 m² (70–100 ft²)], ALUMINA [8.4–9.2 m² (90–100 ft²)].

ANTICOGLAZE is packaged in 18.14 kg, 19-liter (40-pound, 5-gallon) pails and in 7.25 kg, 7.6 liter (16-pound, 2-gallon) pails. Coverage varies according to application technique. For estimation guidelines, consider using a coverage rate of 2500 ft² per 5-gallon pail or 1000 per 2-gallon pail.

Note

BASF Wall Systems is an operating unit of BASF Corporation. (herein after referred to as "BASF Wall Systems")

Residential Policy

Apply wall systems in accordance with local building codes in force at the time of construction. On one and two-family residential framed construction, BASF Wall Systems requires that the wall system selected be one that includes provisions for moisture drainage. Please view the Senergy Residential Policy Bulletin on the Senergy website for a more detailed discussion of this topic.

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