Sentry Stucco Ultra Wall System

Premium impact and puncture resistant, rain screen design cement plaster stucco system with enhanced water management

System Overview
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**DESCRIPTION**
Senergy Sentry Stucco Ultra is a highly advanced Portland cement-based exterior wall system. Its features include a rainscreen design, a fluid applied air/water-resistive barrier, drainage mat, rustproof fiberglass lath, a base coat and textured finishes.

Integrated system components include SENERSHIELD-R/SENERSHIELD-VB, DRAINAGE MAT DF, PERMALATH® 1000, STUCCOBASE™/STUCCOBASE PREMIX, BASE COAT with optional REINFORCING MESH, optional STUCCO PRIME, and 100% acrylic polymer finish. Apply the system over the following acceptable sheathing: PermaBase® Cement Board and other cement-boards conforming with ASTM C1325 (Type A-exterior), poured concrete/unit masonry, e2XPTM sheathing (ASTM C1177), GlasRoc® cement-boards conforming with ASTM C1325 (Type A-exterior), poured concrete/unit masonry, e2XPTM sheathing (ASTM C1177), Securock® glass-mat sheathing (ASTM C1177), DensGlass® exterior sheathing (ASTM C1177), gypsum sheathing (ASTM C79/C1396), Exposure I or exterior plywood (Grade C/D or better), or Exposure I OSB.

Required control joints can be used as design elements, and special shapes and architectural details are easy to add.

Finishes are available in a limitless color selection and offer performance enhancement options, including increased resistance to dirt pick-up, mildew and cracking.

Senergy Sentry Stucco Ultra features easy installation, proven performance, exceptional durability and low maintenance.

**USES**
New or retrofit residential, institutional and commercial low-rise construction such as hotels, hospitals, retail centers, schools, multi-family apartments and condominiums, and government facilities.

**ADVANTAGES**
- Rain screen design provides added protection against the effects of incidental moisture intrusion.
- Fluid applied air/water-resistive barrier provides a durable, seamless building wrap.
- Three-dimensional drainage mat provides a drainage plane for maximum drainage and drying performance.
- Available self-furred glass fiber reinforcing lath in durable plaster base that will not rust.
- Factory prepared STUCCOBASE minimizes potential site mixing errors; improves quality control.
- Acrylic modified base coat over STUCCOBASE enhances water resistance performance and finish coat aesthetics.
- Reinforcing mesh option further increases crack resistance.
- Very resistant to impact and punctures; good for high traffic areas.
- Fade-, abrasion- and dirt-resistant finishes contribute to low maintenance and life-cycle costs.
- EPS shapes integrate into the system for economical architectural detailing; more valuable appearance.

**DESIGN CONSIDERATIONS**
- Maximum allowable deflection L/360
- 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 Ultra Stucco Wall System every 144 ft² per ASTM C1063.
- 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, at floor lines in multilevel wood frame construction, and where movement is anticipated.
- 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**
- 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 stucco.
- 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.

**Framing/Sheathing**
- Framing, plywood and OSB should have moisture content of less than 19 percent. Wet wood will shrink and deform, potentially resulting in the cracking of stucco.
- Sheathing must be securely fastened per applicable building code and manufacturer’s requirements.
- All substrates must be clean, dry and sound without planar irregularities greater than 1/4” in 10’.
- Sheathing must be protected with Senershield or Senershield-VB installed over the sheathing per applicable building code and manufacturer’s requirements.
- Sheathing and lath must be installed according to applicable code requirements.
EPS Insulation (Optional)
Optional EPS insulation boards should be stored flat, out of direct sunlight.

StuccoBase
- Use only clean, potable water for the mix. Plaster sand must be clean, free of impurities and comply with ASTM C897 or C144.
- STUCCOBASE must damp cure for a minimum of 48 hours. Lightly and evenly fog the wall as frequently as conditions dictate in order to keep the base damp.
- STUCCOBASE must cure a minimum of 6 days prior to the application of EPS shapes, base coat, optional reinforced base coat layer, optional primer and finish coat.

Base Coat
- Apply mesh reinforced base coat after STUCCOBASE has cured for a minimum of 6 days.
- Special shapes should be attached prior to reinforcement layer over STUCCOBASE. They must be reinforced with SENERGY BASE COAT and FLEXGUARD 4 REINFORCING MESH.
- If optional mesh reinforcement is specified, apply FLEXGUARD 4 or INTERMEDIATE 6 and SENERGY BASE COAT over the entire STUCCOBASE surface.
- Reinforcing meshes must overlap a minimum of 2 1/2”.
- Mesh color or predominant mesh pattern should not be visible through the base coat.
- Protect 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 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.
- 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.
- Do not apply finish over sealants.

LIMITATIONS
1. Susceptibility to efflorescence can be reduced by using TINTED PRIMER.
2. Not for use below grade.

KEY UPGRADES AVAILABLE:
- FLEXGUARD 4 REINFORCING MESH for maximum crack & moisture resistance
- Use a BASF Wall Systems’ Specialty Finish for an old world or natural stone look
- STUCCO PRIME for finish color enhancement
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