



Senergy Stucco Resurfacing System

Section 09 25 13

A reinforced acrylic surfacing system designed for the renovation of stucco clad walls in both residential and commercial buildings.

INTRODUCTION

This specification refers to application of the Senergy Stucco Resurfacing system over stucco clad walls in both residential and commercial buildings.

DESIGN RESPONSIBILITY

It is the responsibility of both the specifier and the purchaser to determine if a product is suitable for its intended use. The designer selected by the purchaser shall be responsible for all decisions pertaining to design, detail, structural capability, attachment details, shop drawings and the like. The Senergy® brand of Sika Corporation US (herein referred to as "Sika") has prepared guidelines in the form of specifications, typical application details, and product bulletins to facilitate the design process only. Sika is not liable for any errors or omissions in design, detail, structural capability, attachment details, shop drawings or the like, whether based upon the information provided by Sika or otherwise, or for any changes which the purchasers, specifiers, designers or their appointed representatives may make to Sika published comments.

Designing and Detailing a Senergy Stucco Resurfacing Wall System

General: The system shall be installed in strict accordance with current recommended published details and product specifications from the system's manufacturer. Ensure an accurate scope of work is developed by experts in building envelope forensics and engineering. Areas such as existing cladding conditions, expansion joints, flashings, moisture management, sealant degradation, etc. must be inspected and addressed prior to the application of a Senergy Stucco Resurfacing System.

TECHNICAL INFORMATION

Consult Sika Facades' Technical Services Department for specific recommendations concerning all other applications. Consult the Senergy website, usa.sika.com/senergy, for additional information about products, systems, and updated literature.

PART 1 GENERAL

NOTE TO SPECIFIER: Items in blue/underlined indicate a system option or choice of options. Throughout the specification, delete those which are not required or utilized.

1.01 SECTION INCLUDES

- A. Refer to all drawings and other sections of this specification to determine the type and extent of work therein affecting the work of this section, whether or not such work is specifically mentioned herein.
- B. Sika Facades products are listed in this specification to establish a standard of quality. Any substitutions to this specification shall be submitted to and receive approval from the Architect at least 10 days before bidding. Proof of equality shall be borne by the submitter.
- C. Senergy Stucco Resurfacing System: A surfacing system typically consisting of Senergy or SikaWall base coat, SikaWall reinforcing mesh and Senergy or SikaWall finish coat (all materials must be produced by Sika).
- D. The system type shall be Senergy EIFS Surfacing System as manufactured by Sika, Lyndhurst, NJ.

1.02 RELATED SECTIONS

- A. Products installed, but not supplied under this section: substrate, flashing and sealant.

1.03 SUBMITTALS

- A. Submit under provisions of Section [\[01 33 00\] \[x\]](#).
- B. Product Data: Provide data on Senergy Stucco Resurfacing System materials, product characteristics, performance criteria, limitations and durability.

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- C. Samples: Submit [\[two\] \[x \] \[millimeter\] \[inch\]](#) size samples of Senergy Stucco Resurfacing System illustrating finish coat [\[custom\]](#) color and texture range.
- D. Certificate: System manufacturer's approval of applicator.
- E. Sealant: Sealant manufacturer's certificate of compliance with ASTM C1382.
- F. System manufacturer's current specifications, typical details, system overview and related product literature which indicate preparation required, storage, installation techniques, jointing requirements and finishing techniques.

1.04 QUALITY ASSURANCE

- A. Manufacturer: More than 10 years in the stucco industry, with more than 1000 completed stucco projects.
- B. Applicator: Approved by Sika in performing work of this section.
- C. Regulatory Requirements: Conform to applicable code requirements for exterior insulation and finish system.
- D. Field Samples:
 1. Provide under provisions of Section [\[01 43 36\] \[01 43 39\]](#).
 2. Construct one field sample panel for each color and texture, [\[x\] \[meters\] \[feet\]](#) in size of system materials illustrating method of attachment, surface finish, color and texture.
 3. Prepare each sample panel using the same tools and techniques to be used for the actual application.
 4. Locate sample panel where directed.
 5. Accepted sample panel [\[may\] \[may not\]](#) remain as part of the work.
 6. Field samples shall be comprised of all wall assembly components including substrate, insulation board, base coat, reinforcing mesh, primer (if specified), finish coat, and typical sealant/flashing conditions.
- E. Testing:
 1. Senerflex Finish

TEST	METHOD	CRITERIA	RESULTS
Surface Burning	ASTM E84 / UL 723	Flame spread < 25 Smoke developed < 450	All components of the system meet Class A performance (FS < 25; SD < 450)
Water resistance of Coatings in 100% R.H.	ASTM D2247	No deleterious effects after 14 days	Pass
Salt Fog Resistance	ASTM B117	No change after 300 hours	Pass
Mildew Resistance	Mil. Std. 810B Method 508	No fungus growth after 28 days	Pass
Abrasion Resistance	ASTM D968	Finish Coat not worn through after 686 liters of falling sand	Pass
Accelerated Weathering	ASTM G53	No deleterious effects after 7500 hours	Pass
Accelerated Weathering	ASTM G23	No deleterious effects after 2000 hours	Pass
Tensile Bond	ASTM C297, E2134	Greater than 15 psi	Pass

2. Senerflex Tersus Finish

TEST	METHOD	CRITERIA	RESULTS
Surface Burning	ASTM E84 / UL 723	Flame spread < 25 Smoke developed < 450	All components of the system meet Class A performance (FS < 25; SD < 450)
Water resistance of Coatings in 100% R.H.	ASTM D2247	No deleterious effects after 14 days	Pass
Salt Fog Resistance	ASTM B117	No change after 300 hours	Pass
Mildew Resistance	Mil. Std. 810B Method 508	No fungus growth after 28 days	Pass
Abrasion Resistance	ASTM D968	Finish Coat not worn through after 686 liters of falling sand	Pass
Accelerated Weathering	ASTM G53	No deleterious effects after 7500 hours	Pass
Accelerated Weathering	ASTM G23	No deleterious effects after 2000 hours	Pass
Dirt Collection	ASTM D3719	61 days at 45° South exposure Dc Index = 99.0 (100 = Best Performance)	Pass

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Dirt Pickup Resistance	Miami Dade County TAS 143-95 section 7.8 (modified)	Greater than 90% reflectance retained after dirt pickup	Pass
Tensile Bond	ASTM C297, E2134	Greater than 15 psi	Pass

3. SikaWall Maxlastic Finish

TEST	METHOD	CRITERIA	RESULTS
Surface Burning	ASTM E84 / UL 723	Flame spread < 25 Smoke developed < 450	All components of the system meet Class A performance (FS < 25; SD < 450)
Accelerated Weathering	ASTM G266 Cycle 1	No deleterious effects after 2000 hours	Pass
Elongation	ASTM D412	Report value	>300
Water Vapor Transmission	ASTM E96 B	Report Value	15 perms
Flexibility	ASTM D522	Report Value	No Cracking ½" Mandrel
Wind Driven Rain	ASTM D6904	No water penetration with pressure equal to 98 mph wind speed	Pass
Adhesion	ASTM D4541	>15 psi	>125 psi

1.05 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store and handle products under provisions of Section [01 65 00] [01 66 00] [] .
- B. Deliver Sika materials in original unopened packages with manufacturer's labels intact.
- C. Protect Sika materials during transportation and installation to avoid physical damage.
- D. Store Sika materials in a cool, dry place protected from freezing. Store at no less than 40°F/4°C (50°F/10°C GRANITE & STONE finish).
- E. Store Reinforcing Mesh in a cool, dry place protected from exposure to moisture.

1.06 PROJECT/SITE CONDITIONS

- A. Do not apply Sika material in ambient temperatures below 40°F/4°C (50°F/10°C for GRANITE & STONE Finish). Provide properly vented, supplementary heat during installation and drying period when temperatures less than 40°F/4°C (50°F/10°C for GRANITE & STONE Finish) prevail. Do not apply in ambient temperature above 100°F (38°C) or surface temperature above 120°F (49°C).
- B. Do not apply materials to frozen surfaces.
- C. Maintain ambient temperature at or above 40°F/4°C (50°F/10°C for GRANITE & STONE Finish) during and at least 24 hours after installation and until dry.
- D. Under average conditions [70 °F (21 °C), 50% Relative Humidity] finish will be dry within 24 hours. Drying time is dependent on humidity, air temperature, sun exposure, surface conditions and finish thickness. Lower temperature, higher humidity and application in shaded areas will extend drying time. Protect finish from rain or other precipitation and temperatures less than 40°F (4°C) for a minimum of 24 hours or until dry.

1.07 SEQUENCING AND SCHEDULING

- A. Coordinate and schedule installation of Senergy Stucco Resurfacing System with related work of other sections.
- B. Coordinate and schedule installation of trim, flashing, and joint sealers to prevent water infiltration behind the existing stucco system.
- C. Coordinate and schedule installation of windows, doors, A/C units, air seals etc. if being removed and replaced.

1.08 WARRANTY

- A. Provide Sika standard warranty for Senergy Stucco Resurfacing System installations under provisions of Section [01700].
- B. Comply with Senergy application instructions and notification procedures to assure qualification for warranty.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

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A. Senergy Stucco Resurfacing System manufactured by Sika Corporation US.

2.02 MATERIALS

(NOTE TO SPECIFIER: Items in blue/underlined indicate a system option or choice of options. Throughout the specification, delete those which are not required or utilized. Contact Sika Facades' Technical Service Department for further assistance.)

A. Senergy Base Coats: (Required, Select One or More)

1. ALPHA Base Coat: A 100% acrylic based adhesive and base coat, field-mixed Portland cement. It has a creamy texture that is easily spread.
2. ALPHA DRY Base Coat: A dry-mix polymer adhesive and base coat containing Portland cement and requiring only water for mixing.
3. XTRA-STOP Base Coat: A 100% acrylic-based, water-resistant adhesive and base coat, field-mixed Portland cement.
4. ALPHA GENIE Base Coat: A 100% acrylic, fiber-reinforced base coat, adhesive and leveler that is field-mixed with Portland cement.
5. SIKAWALL STUCCO SURFACE LEVELER: A polymer modified dry mix leveling and reinforcing mesh embedment coat specifically designed for use with stucco systems.

NOTE TO SPECIFIER: Portland cement is not used with ALPHA DRY Base Coats or STUCCO SURFACE LEVELER.

B. Portland cement: Conform to ASTM C150, Type I, IL (ASTM C595), II, or I/II, grey or white; fresh and free of lumps.

C. Water: Clean and potable without foreign matter.

D. SIKAWALL SRT Mesh (Required if patches or cracks are present, select one): A woven fiber glass mesh with high mechanical strength and dimensional stability for use to improved crack resistance.

E. SIKAWALL TINTED PRIMER (Optional): A 100% acrylic-based primer that helps alleviate shadowing and enhances performance of the Senergy Wall Systems. Color to closely match the selected Senergy finish Coat color.

F. Senergy Finish Coat: (Required, Select One or More Finishes and Textures)

1. SENERFLEX Finish: 100% acrylic polymer finishes with advanced technology to improve long-term performance and dirt pick-up resistance; air cured, compatible with base coat; Senergy finish color [] as selected; finish texture:
 - a. CLASSIC: A medium worm-holed" appearance which is achieved by the random aggregate sizes in the finish. The "worm-holed" look can be circular, random, vertical or horizontal.
 - b. FINE: Utilizes uniformly sized aggregates for a uniform, fine texture.
 - c. TEXTURE: Can achieve a wide variety of free-formed, textured appearances, including stipple and skip-trowel
 - d. SAHARA: Provides a uniform, "pebble" appearance.
2. SENERFLEX TERSUS Finish: Modified acrylic based finish with water repellent properties, compatible with base coat; Senergy finish color [] as selected; finish texture:
 - a. CLASSIC: A medium worm-holed" appearance which is achieved by the random aggregate sizes in the finish. The "worm-holed" look can be circular, random, vertical or horizontal.
 - b. FINE: Utilizes uniformly sized aggregates for a uniform, fine texture.
 - c. TEXTURE: Can achieve a wide variety of free-formed, textured appearances, including stipple and skip-trowel
 - d. SAHARA: Provides a uniform, "pebble" appearance.
3. SIKAWALL MAXLASTIC Finish: Factory-mixed, 100% acrylic-based, textured elastomeric finish that provides excellent flexibility, and breathability, compatible with base coat; Senergy finish color [] as selected; finish texture:
 - a. R1.5: A medium worm-holed" appearance which is achieved by the random aggregate sizes in the finish. The "worm-holed" look can be circular, random, vertical or horizontal.
 - b. F1.0: Utilizes uniformly sized aggregates for a uniform, fine texture.
 - c. T0.5: Can achieve a wide variety of free-formed, textured appearances, including stipple and skip-trowel.
 - d. M1.5: Provides a uniform, "pebble" appearance.
4. Specialty Finishes: 100% acrylic polymer finishes that can be hand-troweled to simulate stone or

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create a time-honored, mottled tone-on-tone look that achieves a soft and weathered patina over time.

- a. ENCAUSTO VERONA: Utilizes uniformly sized aggregate to achieve a free-formed, flat texture. It can be used to achieve a mottled look and unlimited tone on tone designs by combining multiple colors.
 - b. METALLIC: Has a pearlescent appearance. It utilizes uniformly sized aggregates for a uniform fine texture.
 - c. SIKAWALL GRANITE & STONE: Is a factory-mixed, reflective stone finish consisting of colored aggregate and large black mica flakes in a 100% acrylic transparent binder that provides a classic granite or marble-like textured finished appearance.
5. CHROMA Finish: 100% acrylic polymer based finish with integrated high performance colorants for superior fade resistance, compatible with base coat; Senergy finish color [] as selected; finish texture:
- a. F1.0: Utilizes uniformly sized aggregates for a uniformly fine texture.
 - b. M1.5: Provides a uniform "pebble" appearance.
 - c. R1.5: A medium "worm-holed" appearance which is achieved by the random aggregate sizes in the finish. The "worm-holed" look can be circular, random, vertical or horizontal.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Examine surfaces to receive Senergy Stucco Resurfacing System and verify that substrate and adjacent materials are dry, clean, cured, sound and free of releasing agents, paint, or other residue or coatings. Verify substrate surface is flat, free of fins.
- B. Ensure adhesion tests meet the requirements listed in the *Basics of Conducting Adhesion Testing Senergy* technical bulletin.
- C. Control/expansion joint type and placement shall be the responsibility of the architect/engineer and substrate manufacturer. Existing expansion joints shall be honored.
- D. Unsatisfactory conditions shall be reported to the general contractor and corrected before application of the Senergy Stucco Resurfacing System.

3.02 PREPARATION

- A. Consult *Reference Guide for Stucco Repair* technical bulletin prior to the installation of the Senergy Stucco Resurfacing System.
- B. All surfaces to receive Senergy Stucco Resurfacing System components must be clean, dry and free of airborne contaminants.
- C. Protect all surrounding areas and surfaces from damage and staining during application of Senergy Stucco Resurfacing System.
- D. Protect finished work at end of each day to prevent water penetration.

3.03 MIXING

General: No additives are permitted unless specified in product mixing instructions. Close containers when not in use. Prepare in a container that is clean and free of foreign substances. Do not use a container which has contained or been cleaned with a petroleum-based product. Clean tools with soap and water immediately after use.

NOTE TO SPECIFIER: Keep only the products in this section which were selected in Section 2.02. Delete those not to be utilized.

A. Base Coat:

1. ALPHA Base Coat: Mix base coat with a clean, rust-free paddle and drill until thoroughly blended, before adding Portland cement. Mix one part (by weight) Portland cement with one-part base coat. Add Portland cement in small increments, mixing until thoroughly blended after each additional increment. Clean, potable water may be added to adjust workability.
2. XTRA-STOP Base Coat: Mix base coat with a clean, rust-free paddle and drill until thoroughly blended, before adding Portland cement. Mix one part (by weight) Portland cement with one-part base coat. Add Portland cement in small increments, mixing until thoroughly blended after each additional increment. Clean, potable water may be added to adjust workability.
3. ALPHA GENIE Base Coat: Mix base coat with a clean, rust-free paddle and drill until thoroughly

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blended, before adding Portland cement. Mix one part (by weight) Portland cement with one-part base coat. Add Portland cement in small increments, mixing until thoroughly blended after each additional increment. Clean, potable water may be added to adjust workability.

4. ALPHA DRY Base Coat: Prepare to mix each bag in a 5-gallon (19-liter) pail. Fill the container with approximately 1.5-gallons (5.6-liters) of clean, potable water. Add ALPHA DRY Base Coat in small increments, mixing after each additional increment. Mix ALPHA DRY Base Coat and water with a clean, rust-free paddle and drill until thoroughly blended. Additional ALPHA DRY Base Coat or water may be added to adjust workability.
 5. STUCCO SURFACE LEVELER: Prepare to mix each bag in a 5-gallon (19-liter) pail. Fill the container with approximately 1.3 gallons (4.9 liters) of clean, potable water. Add a full bag of STUCCO SURFACE LEVELER to the pail in small increments, mixing after each addition. Additional 0.3 gallons of water (for a maximum of 1.6 gallons (6 liters)) may be added to adjust workability. Let stand for 5 to 10 minutes, then remix for 1 minute.
- B. SIKAWALL TINTED PRIMER:** Mix the factory-prepared material with a clean, rust-free paddle and drill until thoroughly blended. A small amount of clean, potable water may be added to adjust workability. Do not overwater.
- C. Finishes**
1. SENERFLEX, SENERFLEX TERSUS, MAXLASTIC, CHROMA, and ENCAUSTO VERONA Finish: Mix the factory-prepared material with a clean, rust-free paddle and drill until thoroughly blended. A small amount of clean, potable water may be added to adjust workability. Do not overwater.
 2. SIKAWALL GRANITE & STONE Finish: Gently mix the contents of the pail for 1 minute using a low RPM ½" drill equipped with a mixing paddle such as a Demand Twister or a Wind-Lock B-MEW, B-M1 or B-M9.

3.04 APPLICATION

A. Senergy or SikaWall Base Coat/Reinforcing Mesh: Base coat shall be applied to achieve reinforcing mesh embedment with no reinforcing mesh color visible.

B. SIKAWALL SRT Stucco Reinforcing Mesh:

1. Apply mixed Senergy or SikaWall base coat to entire surface with a stainless-steel trowel to embed the reinforcing mesh.
2. Immediately place the reinforcing mesh against wet base coat and embed the reinforcing mesh into the base coat by troweling from the center to the edges.
3. Lap reinforcing mesh 2 ½" (64 mm) minimum at edges.
4. Ensure reinforcing mesh is continuous at corners, void of wrinkles and embedded in base coat so that no reinforcing mesh color is visible.
5. If required, apply a second layer of base coat to achieve total nominal base coat/reinforcing mesh thickness of 1/16" (1.6 mm).
6. Allow base coat with embedded reinforcing mesh to dry hard (normally 8 to 10 hours).

C. SIKAWALL TINTED PRIMER:

1. Apply primer to the base coat/reinforcing mesh with a sprayer, ¾" (10 mm) nap roller, or good quality latex paint brush at a rate of approximately 150-250 ft² per gallon (3.6-6.1m² per liter). Primer shall be dry to the touch before proceeding to the Senergy finish coat application.

D. Senergy Finish Coat: SENERFLEX, MAXLASTIC, SENERFLEX TERSUS and CHROMA.

1. Apply Senergy finish to the base coat or primed base coat with a clean, stainless steel trowel.
2. Apply and level Senergy finish during the same operation to minimum obtainable thickness consistent with uniform coverage.
3. Maintain a wet edge on Senergy finish by applying and texturing continually over the wall surface.
4. Work Senergy finish to corners, joints or other natural breaks and do not allow material to set up within an uninterrupted wall area.
5. Float Senergy finish to achieve final texture.

E. SIKAWALL GRANITE & STONE Specialty Finish:

1. Apply SIKAWALL TINTED PRIMER to the substrate in accordance with the current product bulletin. Primer shall be of the corresponding color for the selected finish color. Allow the primer to dry to the touch before proceeding with finish application.
2. Apply a tight coat of finish with a clean, stainless steel trowel. Maintain a wet edge on finish by applying and leveling continually over the wall surface.

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3. Work finish to corners, joints or other natural breaks and do not allow material to set up within an uninterrupted wall area. Allow first coat to set until surface is completely dry prior to applying a second coat of finish.
4. Use a stainless-steel trowel and apply the second coat of finish. Achieve final texture using circular motions. Total thickness of finish may be between 1/16" (1.6 mm) and 1/8" (3.2 mm).

3.05 CLEANING

- A. Clean work under provisions of Section [\[01 74 00\] \[x\]](#).
- B. Clean adjacent surfaces and remove excess material, droppings, and debris.

3.06 PROTECTION

- A. Protect materials from rain, snow and frost for 48–72 hours following application.
- B. Under average conditions [70 °F (21 °C), 50% Relative Humidity] finish will be dry within 24 hours. Drying time is dependent on humidity, air temperature, sun exposure, surface conditions and finish thickness. Lower temperature, higher humidity and application in shaded areas will extend drying time. Protect finish from rain or other precipitation and temperatures less than 40°F (4°C) for a minimum of 24 hours or until dry.
- C. Protect finished work under provisions of Section [\[01 76 00\] \[x\]](#).

END OF SECTION

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WARRANTY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com/senergy or by calling SIKAFacades' Technical Service Department at 1-800-589-1336. Nothing contained in any SIKAliterature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKAPRODUCT as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKAPRODUCT.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKASHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKASHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS. Sale of SIKAPRODUCTS are subject to the Terms and Conditions of Sale which are available at <https://usa.sika.com/>.

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