



Sentry Stucco Ultra Wall System – Section 09 24 00

1 or 3-coat impact-resistant cement plaster stucco system incorporating enhanced water management.

INTRODUCTION

This specification has been assembled to enable the design professional to select or delete sections to suit the project requirements and is intended to be used in conjunction with Senergy® typical details, product bulletins, technical bulletins, etc.

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 Sentry Stucco Ultra Wall System

General: The system shall be installed in strict accordance with current recommended published details and product specifications from the system’s manufacturer.

A. Wind Load

1. Maximum deflection not to exceed L/360 under positive or negative design loads.
2. Design for wind load in conformance with local code requirements.

B. Substrate Systems:

1. Acceptable substrates are PermaBase® Cement Board and other cement-boards conforming with ASTM C1325 (Type A-exterior); poured concrete/unit masonry; ASTM C1177 type sheathings, including, Weather Defense™ Platinum sheathing, GreenGlass® sheathing, e²XP™ sheathing, GlasRoc® sheathing, Securock™ glass-mat sheathing, and DensGlass® exterior sheathing, DensElement (sheathing only); gypsum sheathing (ASTM C79/C1396); Exposure I or exterior plywood (Grade C/D or better); or Exposure I OSB, Huber Zip (sheathing only).
2. Painted and otherwise coated surfaces of brick, unit masonry, and concrete shall be inspected and prepared as approved by Sika before application. The applicator shall verify that the proposed substrate is acceptable prior to the Sentry Stucco Ultra Wall System installation.
3. The substrate systems shall be engineered with regard to structural performance by others. Framing spacing for the Senergy Sentry Stucco Ultra system is a maximum 24” o.c. (610 mm); maximum 16” o.c. (406 mm) when SIKAWALL PERMALATH 1000 is used.
4. Refer to Senergy’s *Accepted Stucco Wall Systems Lath and Trim Accessories* bulletin for more detailed information regarding trim requirements, etc.

C. Moisture Control: Prevent the accumulation of water behind the Sentry Stucco Ultra system, either by condensation or leakage through the wall construction, in the design and detailing of the wall assembly.

1. Provide flashing to direct water to the exterior where it is likely to penetrate components in the wall assembly, including, above window and door heads, beneath window and door sills, at roof/wall intersections, decks, abutments of lower walls with higher walls, above projecting features, at the base of the wall and anywhere else required by local code or design at the time of installation.
2. The Senershield-R/-RS/-VB air/water-resistive barrier must be installed over the substrate according to current Senergy specifications and requirements.
3. Openings must be flashed prior to window/door, HVAC, etc. installation to provide moisture protection of the building frame and interior. Reference Senershield published details and product data sheet.

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4. Air Leakage Prevention: provide continuity of air barrier system at foundation, roof, windows, doors and other penetrations through the system with connecting and compatible air barrier components to minimize condensation and leakage caused by air movement.
- D. Color Selection:** The use of dark colors over EPS insulation trim shapes must be considered in relation to wall surface temperature as a function of local climate conditions. Select Finish Coat color with a light reflectance value (LRV) of 20% or higher. The use of dark colors (LRV less than 20%) is not recommended with trim shapes that incorporate expanded polystyrene (EPS). EPS has a sustained service temperature limitation of approximately 160°F (71°C).
- E. Grade Condition:** Sentry Stucco Ultra wall system is not intended for use below grade or on surfaces subject to continuous or intermittent immersion in water or hydrostatic pressure. Ensure a minimum 4" (101.6mm) clearance above grade or as required by code, a minimum 2" (50.8mm) clearance above finished grade (sidewalk/concrete flatwork).
- F. Trim, Projecting Architectural Features:**
NOTE TO SPECIFIER: Installation of the Sentry Stucco Ultra system with trim shapes that incorporate expanded polystyrene (EPS) outside the slope guidelines referenced in this specification may still qualify for a standard warranty; however, increased maintenance and premature deterioration of the trim shapes that incorporate expanded polystyrene (EPS) shall be expected and any deleterious effects caused by the lack of slope will not be the responsibility of Sika. The design professional has the option to build according to his/her project needs. The design professional must also consider geography, climate, building orientation, wall orientation and adjacent building components when designing with trim shapes that incorporate expanded polystyrene (EPS). The slope guidelines referenced below are provided to offer assistance to the owner and/or design professional. Final design of any building is the responsibility of the design professional.
1. Minimum slope for all projections shall be 1:2 (27°) with a maximum length of 12" (30.5 cm) [e.g. 6" in 12" (15 cm in 30.5cm)]. Increase slope for northern climates to prevent accumulation of ice/snow on the surface.
 2. The Sentry Stucco Ultra system was designed and tested to be applied to vertical surfaces. As the slope of the wall system application decreases, the chance for premature deterioration of any wall system increases.
 3. Low sloping conditions are subject to more extreme heat. Low sloped areas are known to produce an increase in wall surface temperature which can lead to accelerated weathering of the low sloped surface.
- G. System Joints:**
1. Typical locations for system expansion joints are at building expansion joints, at prefabricated panel joints, floor lines of wood frame construction or slip tracks in steel frame construction, where substrates change and where structural movement is anticipated. Detail specific locations in construction drawings.
 2. Control joints are recommended at a minimum of every 144 ft² (13 m²) of wall surface area and where specified by the design professional. The maximum uncontrolled length or width is 18 lineal ft. (5.5 lineal m) and a maximum uncontrolled length to width ratio of 2 1/2: 1. Detail specific locations in construction drawings. For additional information reference the Senergy *Accepted Stucco Wall Systems Lath and Trim Accessories* technical bulletin.
NOTE TO SPECIFIER: It is the sole responsibility of the project design team, including the architect, engineer, etc., to ultimately determine specific expansion and control joint placement, width and design. Sealant joints are required at all penetrations through the Senergy Sentry Stucco Ultra wall system (windows, doors, lighting fixtures, electrical outlets, hose bibs, dryer vents, etc.). Refer to Senergy Sentry Stucco Ultra system typical details.
 3. For a list of acceptable sealants refer to *Acceptable Sealants for use with Senergy Wall Systems* technical bulletin.
- H. Decks:** Wood decks must be properly flashed prior to system application. For proper application, refer to Senergy Sentry Stucco Ultra system typical details. The Sentry Stucco Ultra system must be terminated a minimum of 2" (50.8 mm) above all decks, patios, sidewalks, etc.
- I. Coordination with other trades:**
1. Evaluate adjacent materials such as windows, doors, etc. for conformance to manufacturer's

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details. Adjacent trades shall provide scaled shop drawings for review.

2. Air Seals at any joints/gaps between adjoining components (penetrations, etc.) are of primary importance to maintain continuity of an air barrier system and must be considered by the design professional in the overall wall assembly design. Install air seals between the primary air/water-resistive barrier and other wall components (penetrations, etc.) in order to maintain continuity of an air barrier system.
3. Provide protection of rough openings in accordance with Senergy typical details before installing windows, doors, and other penetrations through the wall.
4. Install copings and sealant immediately after installation of the Sentry Stucco Ultra system and when Senergy coatings are completely dry.

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 for 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 project 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. Sentry Stucco Ultra Wall System: composite wall system of Senergy air/water resistive barrier, SIKAWALL DRAINAGE MAT DF, SIKAWALL PERMALATH 1000 or acceptable expanded metal or wire lath, SIKAWALL STUCCO BASE, Senergy Base Coat (if specified), Senergy Reinforcing Mesh (if specified) and Senergy Finish Coat.
- C. Senergy 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.
- A. The system type shall be Sentry Stucco Ultra system as manufactured by Sika Corporation US, Lyndhurst, NJ.

1.02 RELATED SECTIONS

- | | |
|---------------------|---------------------------------------|
| A. Section 03 00 00 | Concrete substrate |
| B. Section 04 00 00 | Masonry substrate |
| C. Section 05 40 00 | Cold-formed metal framing |
| D. Section 06 11 00 | Wood framing |
| E. Section 06 16 00 | Sheathing |
| F. Section 07 27 00 | Air barriers |
| G. Section 07 62 00 | Sheet metal flashing and trim |
| H. Section 07 65 00 | Flexible flashing |
| I. Section 07 90 00 | Joint protection |
| J. Section 08 00 00 | Openings |
| K. Section 09 22 00 | Supports for plaster and gypsum board |
| L. Section 09 22 16 | Non-structural metal framing |
| M. Section 09 22 36 | Lath |
| N. Section 09 29 00 | Gypsum board |

1.03 REFERENCES

- | | |
|---------------|---|
| A. ASTM C150 | Standard Specification for Portland Cement |
| B. ASTM C926 | Standard Specification for Application of Portland Cement-Based Plaster |
| C. ASTM C1063 | Standard Specification for Installation of Lathing and Furring to Receive Interior and Exterior Portland Cement-Based Plaster |
| D. ASTM C847 | Standard Specification for Metal Lath |

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- E. ASTM C933 Standard Specification for Welded Wire Lath
- F. ASTM C1764 Standard Test Methods for Non-Metallic Plaster Bases (Lath) used with Portland Cement Based Plaster in Vertical Applications
- G. ASTM C1787 Standard Specification for Installation of Non-Metallic Plaster Bases (Lath) used with Portland Cement Based Plaster in Vertical Applications
- H. ASTM C1788 Standard Specification for Installation of Non-Metallic Plaster Bases (Lath) used with Portland Cement Based Plaster in Vertical Applications
- I. ASTM D226 Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing
- J. ASTM D1784 Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (PVC) Compounds
- K. ICC-ES AC11 Cementitious Exterior Wall Coatings
- L. CCRR 0230 Intertek Code Compliance Research Report for SikaWall Stucco Base Sanded / Stucco Base Concentrate.
- M. CCRR 0249 Intertek Code Compliance Research Report (PERMALATH 1000)
- N. ESR-2986 ICC Evaluation Service, Inc., ES Report™ (SENERSHIELD-R/RS)

1.04 SUBMITTALS

- A. Submit under provisions of Section [01 33 00]
- B. Product Data: Provide data on Sentry Stucco Ultra System materials, product characteristics, performance criteria, limitations and durability.
- C. Code Compliance: Provide manufacturer's applicable code compliance report.
- D. Samples: Submit [\[two\] \[x \] \[millimeter\] \[inch\]](#) size samples of Sentry Stucco Ultra system design illustrating Finish Coat color and texture range.
- E. Certificate: System manufacturer's approval of applicator.
- F. Sealant: Sealant manufacturer's certificate of compliance with ASTM C920.
- G. System manufacturer's typical details, system design guide and related product literature which indicate preparation required, storage, installation techniques, jointing requirements and finishing techniques.

1.05 QUALITY ASSURANCE

- A. Manufacturer: More than 10 years in the exterior wall systems industry, with more than 1000 completed cement plaster stucco projects.
- B. Applicator: Approved by Sika in performing work of this section.
- C. Regulatory Requirements: Conform to applicable code requirements.
- 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, Senergy SENERSHIELD-R/RS/VB, SIKAWALL DRAINAGE MAT DF, SIKAWALL PERMALATH 1000 or metal plaster base, SIKAWALL STUCCO BASE, Senergy Base Coat (if specified), Senergy Reinforcing Mesh (if specified), Senergy Finish Coat and typical sealant/flashing conditions.
- E. Testing:
 - 1. General Air/Water-Resistive Barrier Minimum Performance:

TEST	METHOD	CRITERIA	RESULTS
Air Leakage of Air Barrier Assemblies	ASTM E 2357	0.2 l/(s.m ²) @75 Pa (0.04 cfm/ft ² @ 1.57 psf)	0.0007 l/s.m ² (0.0001 cfm/ft ²) @ 75 Pa (1.57 psf) positive / post conditioning 0.0014 l/s.m ² (0.0003 cfm/ft ²) @ 75 Pa (1.57 psf) negative / post conditioning

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Air Permeance of Building Materials	ASTM E 2178	0.02 l/(s.m ²) @75 Pa (0.004 cfm/ft ² @ 1.57 psf)	0.0049 l/s.m ² @ 75 Pa (0.00098 cfm/ft ² @ 1.57 psf)
Rate of Air Leakage	ASTM E 283		0.0185 l/s.m ² @ 75 Pa (0.0037 cfm/ft ² @ 1.57 psf)
Water Vapor Transmission	ASTM E 96	Report value	Senersshield-R - 18 Perms (grains/Hr. in Hg. ft ²) @ 10 mils wet film thickness Senersshield-RS 18 Perms (grains/Hr. in Hg. ft ²) @ 12 mils wet film thickness Senersshield-R/RS - 14 Perms (grains/Hr. in Hg. ft ²) @ 20/24 mils wet film thickness Senersshield-VB - 0.09 Perms (grains/Hr. in Hg. ft ²) @ 26 mils wet film thickness
Pull-Off Strength of Coatings	ASTM D 4541	Min. 110 kPa (15.9 psi) or substrate failure	Pass - Tested over exterior gypsum sheathing, ASTM C1177 glass-mat sheathing, cement board, OSB, plywood; PVC and galvanized flashing
Nail Sealability (without Sheathing Fabric)	ASTM D 1970	No water penetration at galvanized roofing nail penetration under 127 mm (5") head of water after 3 days at 4° C (40° F)	Pass
Surface Burning	ASTM E 84	Flame Spread < 25 Smoke Development < 450	Meets Class A: Flame spread =15 Smoke developed = 95

2. Air/Water-Resistive Barrier ICC-ES AC-212:

TEST	METHOD	CRITERIA	RESULTS
Sequential Testing: 1. Structural 2. Racking 3. Restrained Environmental Conditioning 4. Water Penetration	1. ASTM E 1233 Procedure A 2. ASTM E 72 3. ICC-ES AC-212 4. ASTM E 331	No cracking at joints or interface of flashing No water penetration after 15 min @ 137 Pa (2.86 psf)	Pass - Tested over OSB and gypsum sheathing. No water penetration after 90 min @ 299 Pa (6.24 psf)
Sequential Testing: 1. UV Light Exposure 2. Accelerated Aging 3. Hydrostatic Pressure Test	1. ICC-ES AC-212 2. ICC-ES AC-212 3. AATCC 127-1985	No cracking or bond failure to substrate No water penetration after 21.7 in (550 mm) water for 5 hours	Pass
Freeze-Thaw	ASTM E 2485 (Method B)	No sign of deleterious effects after 10 cycles	Pass - Tested over exterior gypsum sheathing, ASTM C1177 glass-mat sheathing, cement board, OSB, plywood
Water Resistance	ASTM D2247	No deleterious effects after 14-day exposure	Pass - Tested over exterior gypsum sheathing, ASTM C1177 glass-mat sheathing, cement board, OSB, plywood
Tensile Bond	ASTM C 297	Minimum 103 kPa (15 psi)	Pass - Tested over exterior gypsum sheathing, ASTM C1177 glass-mat sheathing, cement board, OSB, plywood, CMU; PVC and galvanized flashing
Tensile Bond (after freeze-thaw)	ASTM C 297	Minimum 103 kPa (15 psi) avg; no failure after 10 cycles freeze-thaw	Pass

3. Air/Water-Resistive Barrier ICC-ES AC 148:

TEST	METHOD	CRITERIA	RESULTS
Sequential Testing: A. UV Light Exposure B. Accelerated Aging C. Hydrostatic Pressure Test	1. ICC-ES AC 148 2. ICC-ES AC 148 3. AATCC 127-1985	No cracking or bond failure to substrate No water penetration after 21.7 in (550 mm) water for 5 hours	Pass
Peel Adhesion	ASTM D 3330 Method F	After UV Exposure After Accelerated Aging After Elevated Temperature Exposure After Water Immersion	Pass - tested over ASTM C1177 glass-mat sheathing, OSB, plywood, PVC and uncoated aluminum
Nail Sealability after Thermal Cycling	ASTM D 1970 (Modified), AAMA 711	No water penetration at galvanized roofing nail penetration under 31 mm (1.2") head of water after 24 hours at 4° C (40° F)	Pass
Tensile Strength after UV Exposure	ASTM D 5034, AAMA 711	Minimum 0.5 N/mm (2.9 lbs./in)	Pass

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Cold Temperature Pliability	ASTM D 1970, AAMA 711	No cracking after bending around a 25 mm (1") mandrel after 2-hour exposure to -18° C (0° F)	Pass
Resistance to Peeling	AAMA 711	No signs of distress or failure after 24 hours of exposure at room temperature, 50° C (122° F), 65° C (149° F), 80° C (176° F)	Pass

4. Sentry Stucco Ultra Wall System and Component Performance:

TEST	METHOD	CRITERIA	RESULTS
Freeze-thaw Resistance	Per ICC-ES acceptance criteria AC-11	No sign of deleterious effects after 10 cycles	SikaWall Stucco Base passed with no visible evidence of deterioration when examined under 5x magnification
Water Vapor Transmission	ASTM E 96 -Wet Cup	Report Value	SikaWall Stucco Base 20.4 perms
Racking Load Test	ASTM E 72	Report Value	Maximum load resistance 5530 pounds (250 kg)
Compressive Strength	ASTM C 109	Report Value	22.4 MPa (3245 psi) average for SikaWall Stucco Base
Flexural Strength	ASTM C348	Report Value	4.57 MPa (663 psi) average for SikaWall Stucco Base
Surface Burning	ASTM E 84	Report Value	<25 Flame Spread <450 Smoke Developed Includes PermaLath 1000, SikaWall Stucco Base, and Senergy Finishes
Non-Combustibility	ASTM E 136	No flaming, excess temperature rise or weight loss when exposed to 750°C (1382°F)	Pass SikaWall Stucco Base with PermaLath 1000 or metal plaster base
Water Penetration	ASTM E 331	No water penetration at 15 minutes @ 2.86 psf (137 Pa)	Pass
Fire Resistance Rated Assemblies	ASTM E 119	No transmission of heat greater than 250°F above ambient; no passage of flame or hot gasses; no passage of water from hose stream test; for loadbearing walls – ability to withstand load under test conditions	1 Hour Rated Assemblies ¹ : <ul style="list-style-type: none"> Load bearing wood stud wall with 10.9 mm (7/16") OSB and 9.5 mm (3/8") SikaWall Stucco Base. Load bearing wood stud wall with 16 mm (5/8") Type X gypsum sheathing and 9.5 mm (3/8") SikaWall Stucco Base Load bearing wood stud wall with 10.9 mm (7/16") OSB, PERMALATH 1000 & 12.7 mm (1/2") SikaWall Stucco Base (from inside only). Non-load bearing steel framed wall with 16 mm (5/8") Type X gypsum sheathing, PERMALATH 1000 & 12.7 mm (1/2") SikaWall Stucco Base

Reference Intertek Evaluation Reports CCRR-0230 and CCRR-0249 for more information

5. ASTM E330 Wind-Load:

FRAMING	SHEATHING	LATH	ALLOWABLE WIND LOAD	
Minimum 2x4 wood with a maximum spacing of 24" on center	Fiberboard, gypsum board and wood structural panels	Minimum No. 20 gage by 1" metal lath installed with 11 gage roofing nails or NO. 16 gage staples spaced as follows: 6 in. o.c. for framing with G=0.50 5 in. o.c. for framing with G=0.46 4 in. o.c. for framing with G=0.42	40 psf positive	40 psf negative
Min. 3-5/8 in. No. 20 gage steel studs with a maximum spacing of 24 in. o.c.	Fiberboard, gypsum board and wood structural panels	Min. No. 20 gage by 1-in. metal lath installed with No 7, S-12-20 self-drilling, self-tapping panhead screws, spaced at 6 in. o.c.	40 psf positive	40 psf negative

6. SikaWall Maxlastic Performance:

TEST	METHOD	CRITERIA	RESULTS
Elongation	ASTM D 412 (modified*)	Report Value	> 300%
Surface Burning	ASTM E84	Report Value	<25 Flame Spread <450 Smoke Developed

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Accelerated Weathering	ASTM G 155 Cycle 1	No deleterious effects after 2000 hrs.	Pass
Water Vapor Transmission	ASRM E 96 B	Report Value	> 10 perms
Flexibility	ASTM D 522	Report Value	No cracking 1/2" mandrel
Wind Driven Rain Resistance	ASTM D 6904	Resists pressure equivalent to a 98-mph wind velocity without exhibiting water leaks or weight gain	Pass
Adhesion	ASTM D 4541	Min. 15.9 psi (110 kPa) or substrate failure	> 125 psi (862 kPa)

1.06 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 MAXFLASH at a minimum of 40F. In cold weather, keep containers at room temperature for at least 24 hours before using.
- F. Store insulation boards flat and protected from direct sunlight and extreme heat.
- G. Store Reinforcing Mesh, Sheathing Fabric and Flash Seal NP flexible flashing in a cool, dry place protected from exposure to moisture.

1.07 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 material 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.

1.08 SEQUENCING AND SCHEDULING

- A. Coordinate and schedule installation of Sentry Stucco Ultra wall system with related work of other sections.
- B. Coordinate and schedule installation of trim, flashing, and joint sealers to prevent water infiltration behind the system.

1.09 WARRANTY

- A. Provide A Sika standard warranty for Senergy Sentry Stucco Ultra wall system installations under provisions of Section [01 70 00]. Warranty term varies with system component's configuration, reference Senergy *Warranty Schedule* technical bulletin for specific information.
- B. Comply with Sika Facades' notification procedures to assure qualification for warranty.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Senergy Sentry Stucco Ultra system components 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.](#)

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A. Air/Water-Resistive Barrier Components:

1. Senergy Air/Water-Resistive Barrier: **(Required, Select One)**
 - a. [SENERSHIELD-R](#): A one-component fluid-applied vapor permeable air/water-resistive barrier.
 - b. [SENERSHIELD-RS](#): A one-component fluid-applied vapor permeable air/water-resistive barrier for use with airless spray equipment.
 - c. [SENERSHIELD-VB](#): A one-component fluid-applied vapor impermeable air/water-resistive barrier.
2. Rough Opening and Joint Treatment: **(Required, Select a or b)**
 - a. [SIKAWALL SHEATHING FABRIC](#): A spun-bonded non-woven reinforced polyester web for use with Senergy fluid applied air/weather-resistive barriers.
 - b. [SIKAWALL MAXFLASH](#): A one-component elastomeric material for use as a flexible flashing membrane.
3. [SIKAWALL FLASH SEAL NP Transitional Membrane / Expansion Joint Flashing](#): A 32-mil thick self-adhering and self-sealing composite membrane of polyester fabric and butyl adhesive. Compatible with Senergy liquid air/weather resistive barriers.

B. SIKAWALL DRAINAGE MAT DF: A three-dimensional drainage core bonded to a breathable fabric. The mat consists of fused, entangled filaments designed to provide an unobstructed drainage path.

C. Lath/Plaster Base: (Required, Select One)

NOTE TO SPECIFIER: Ensure selection of the appropriate Lath based on specified thickness of the Senergy Sentry Stucco Ultra wall system. Delete those products not utilized. Reference Senergy Lath & Trim Accessories System support bulletin for additional information.

1. [SIKAWALL PERMALATH 1000](#): An open weave, three-dimensional self-furring, nominal 1/4" thick glass fiber reinforcing lath is for use with a minimum thickness of 1/2" (12.7mm). Complies with [ASTM C1764](#), [C1787](#) and [C1788](#).
2. [Woven or Welded Wire Lath](#): A minimum No. 20 gauge, 1" (25.4 mm) galvanized woven wire fabric is for use with 3/8"-1/2" (9.5-12.7mm) thickness only. Other laths shall comply with [ASTM C933](#) (welded) and [ASTM C1032](#) (woven). The lath is self-furred or furred when applied over all substrates.
3. [Expanded Metal Lath](#): The lath shall comply with [ASTM C847](#). Furring and self-furring requirements shall be as set forth for wire lath. Minimum weight is 2.5 lbs./yd² (1.36 kg/m²). Refer to [ASTM C1063](#) for additional information.

D. Fastening for Lath/Plaster Base: (Required, Select One or More)

1. [SIKAWALL PERMALATH 1000](#): [ULP-302 \(1 3/4"\)](#) or [Lath Plate \(1 1/4"\)](#) Mechanical Fastening Systems by [Wind-Lock Corp.](#)
 - a. [Masonry](#): masonry type [M] fastener with [ULP 302](#) diameter washer; or [Lath Plate](#) 25 mm (1") minimum penetration into masonry. Fastener spacing 6" o.c. vertically and 16" o.c. horizontally.
 - b. [Light Gauge Steel Framing/Furring \(20 Gauge\)](#): light metal type [LM] bugle head screws with [ULP 302 \(1 3/4"\)](#) diameter washer or [Lath Plate](#) 16 mm (5/8") minimum penetration into framing 6" o.c. vertically and 16" o.c. horizontally
 - c. [Heavy Gauge Steel Framing \(18 to 12 Gauge maximum\)](#): metal type [S] bugle head screws with [ULP 302 \(1 3/4"\)](#) diameter washer or [Lath Plate](#) or 32 mm (1 1/4") long x 2.5 mm (1/8") diameter [VersaPin Gripshank®](#) fasteners by [Aerosmith Fastening Systems](#) with [Lath Plates](#); 16 mm (5/8") minimum penetration to framing 6" o.c. vertically and 16" o.c. horizontally.
 - d. [Wood framing](#): wood type [W] bugle head screws with [ULP 302 \(1 3/4"\)](#) diameter washer or [Lath Plate](#); 16 mm (5/8") minimum penetration into framing or minimum 16-gauge wire staples with minimum 3/4" crown and minimum 3/4" penetration into framing, 6" o.c. vertically and 16" o.c. horizontally.
2. [Metal Plaster Base](#): Fasten per [ASTM C1063](#)
 - a. [Masonry](#): Power or powder actuated fasteners and/or concrete stub nails with minimum 3/4" penetration. Fastener spacing not more than 7" o.c. vertically and 16" o.c. horizontally.

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- b. Metal framing: Screws appropriate to framing gauge, not less than 3/8" penetration through framing with a minimum of 3 exposed threads. Fastener spacing not more than 7" o.c. vertically and 16" or 24" o.c. horizontally, based on metal plaster base type.
- c. Wood framing: nails, 1" wire staples penetrating wood framing not less than 3/4" or screws penetrating wood framing not less than 5/8". Fastener spacing not more than 7" o.c. vertically and 16" or 24" o.c. horizontally, based on metal plaster base type.

E. Stucco Base Coat: (Required, Select One)

1. SIKAWALL STUCCO BASE CONCENTRATE: Factory-blended stucco mixture of Portland cement, reinforcing fibers, and proprietary ingredients.
2. SIKAWALL STUCCO BASE SANDED: Factory-blended stucco mixture of Portland cement, reinforcing fibers, sand, and proprietary ingredients.

F. Plaster Sand: (Required if SIKAWALL STUCCO BASE CONCENTRATE is retained: Must be clean and free from deleterious amounts of loam, clay, silt, soluble salts and organic matter. Sampling and testing must comply with ASTM C897. Plaster sand must be graded within the following limits:

Retained on U.S. Standard Sieve	Percent retained by weight ± 2 Percent	
	Minimum	Maximum
No. 4	-	0
No. 8	0	10
No. 16	10	40
No. 30	30	65
No. 50	70	90
No. 100	95	100

G. Water: Clean and potable without foreign matter.

H. SIKAWALL STUCCO SURFACE LEVELER: Polymer modified dry- mix leveling and embedment coat for a crack suppression system.

I. Senergy Adhesive/Base Coat: (Required for Trim Shapes)

1. ALPHA Base Coat: A 100% acrylic base coat, field-mixed with Type I, II or Type II 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.

J. Portland cement (Required if ALPHA BASE is Selected): Conform to ASTM C150, Type I, II, II, or I/II, grey or white; fresh and free of lumps.

K. SIKAWALL SRT MESH: a woven fiber glass mesh with high mechanical strength and dimensional stability for improved clack resistance. Must be used with a Senergy base coat or STUCCO SURFACE LEVELER.

L. SENERGY FLEXGUARD 4 Reinforcing Mesh (Required if EPS Trim Shapes Are Specified): A balanced, open-weave glass, fiber reinforcing mesh, twisted multi-end strands treated for compatibility with Senergy Base Coats

M. SIKAWALL STUCCO PRIME: A 100% acrylic-based primer; color [] to closely match the selected Senergy Finish Color.

NOTE TO SPECIFIER: STUCCO PRIME is recommended for CLASSIC finish texture. Although optional in other applications, Senergy recommends the use of STUCCO PRIME prior to application of Senergy Finish over applications of Senergy Sentry Stucco Ultra wall system "brown coat". The application of STUCCO PRIME will enhance color uniformity, performance and ease Senergy Finish application and will minimize the likelihood of read-through.

N. SIKAWALL TINTED PRIMER (Required if SIKAWALL GRANITE & STONE finish is selected): A 100% acrylic-based primer that helps alleviate shadowing and enhances the performance of the Senergy Wall Systems. Color to closely match the selected Senergy Finish Coat.

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O. 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. SIKAWALL MAXLASTIC Finish: 100% acrylic based, textured elastomeric finish that provides excellent flexibility and breathability, air cured, 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. F1.5: 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.
3. 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.
4. SikaWall Specialty Finishes: 100% acrylic polymer finishes that can be hand-troweled to simulate stone or create a time-honored, mottled tone-on-tone look that achieves a soft and weathered patina over time.
 - a. SIKAWALL 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. SIKAWALL 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. SIKAWALL 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: Has 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.

2.03 ACCESSORIES

Trim: Casing bead, corner bead, expansion joint and weep screed accessories shall meet the requirements of ASTM C1063. Accessories shall be: vinyl, meeting ASTM D1784; galvanized, meeting ASTM A525 and ASTM A526; or zinc, meeting ASTM B69. Vinyl or zinc accessories are

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recommended where highly humid or salt-laden service conditions exist. Refer to Senergy's Accepted Stucco Wall Systems Lath and Trim Accessories bulletin for additional information.

1. Foundation weep screed: Beveled edge designed to terminate finish system and drain internal moisture.
2. Casing bead: Square edge style.
3. Corner bead: Small radius nose style.
4. Control joints: W-shaped accordion profile style.
5. Expansion joints: [\[Two-piece type slip-joint design\]](#) or [\[pair of casing beads spaced for application of sealant bead\]](#)

PART 3- EXECUTION

3.01 EXAMINATION

A. Verify project site conditions under provisions of Section [01 89 00] [].

B. Walls:

1. Substrates:
 - a. Acceptable substrates are PermaBase® Cement Board and other cement-boards conforming with ASTM C1325 (Type A-exterior) , poured concrete/unit masonry, e²XP™ sheathing (ASTM C1177), GlasRoc® sheathing (ASTM C1177), Securock™ glass-mat sheathing (ASTM C1177), DensGlass and DensElement (sheathing only) exterior sheathing (ASTM C1177), Weather Defense™ Platinum sheathing (ASTM C1177), GreenGlass® sheathing (ASTM C1177), gypsum sheathing (ASTM C79/C1396), Exposure I or exterior plywood (Grade C/D or better), Huber Zip (sheathing only), or Exposure I OSB.
 - b. Sheathings must be securely fastened per applicable building code requirements and manufacturer's recommendations.
 - c. Examine surfaces to receive system and verify that substrate and adjacent materials are dry, clean, and sound. Verify substrate surface is flat, free of fins or planar irregularities greater than 1/4" in 10' (6 mm in 3 m).
 - d. When applying Senergy Air/Water-Resistive Barriers to concrete/unit masonry, verify concrete/unit masonry is free of dust, dirt, grease, oils, laitance, efflorescence, biological residue, existing paint or coatings, curing compounds, form release agents, or any other contaminants which might affect the bond. Masonry walls should be properly cured to full load bearing capacity, laid true, and with joints tooled. Properly prepared concrete will have an open texture similar to fine grit sandpaper.
 2. Flashings:
 - a. All flashings are by others and must be installed in accordance with specific manufacturer's requirements. Where appropriate, end-dams must be provided.
 - b. Openings must be flashed prior to window/door, HVAC, etc. installation.
 - c. Windows and openings shall be flashed according to design and building code requirements.
 - d. Individual windows that are ganged to make multiple units require continuous head flashing and/or the joints between the units must be fully sealed.
 3. Roof: Verify that all roof flashings have been installed in accordance with the guidelines set by the Asphalt Roofing Manufacturers Association (ARMA).
 4. Kick-out flashing: Kick-out flashing must be installed where required. The kick-out flashing must be leak-proof and angled (min 100°) to allow for proper drainage and water diversion. Refer to Senergy's Sentry Stucco Ultra wall system typical details.
- C. Do not proceed until all unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Protect all surrounding areas and surfaces from damage and staining during application of Senergy Sentry Stucco Ultra wall system.
- B. 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

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container which has contained or been cleaned with a petroleum-based product. Clean tools and equipment with water immediately after use. Dried material can only be removed mechanically.

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

A. Air/Water-Resistive Barriers:

1. SENERSHIELD-R/RS/VB: Mix with a clean, rust-free paddle and drill until thoroughly blended. Do not add water.

B. Stucco Base Coat:

1. SIKAWALL STUCCO BASE CONCENTRATE: Use mixer which is clean and free of foreign substances. Add approximately 3 gallons (11.35 liters) of clean potable water, one bag of STUCCO BASE CONCENTRATE and approximately 60 lbs. (27.2 kg) of plaster sand to mixer. Mix for 3-4 minutes at normal mixing speed while adding an additional 140-180 lbs. (64-82 kg) of plaster sand and 1-3 gallons (3.8-11.35L) of water for workability. Total amount of sand needed per bag of STUCCO BASE CONCENTRATE equals 200-240 lbs. (91-109 kg). Allow material to set for 2-4 minutes and then remix adding water if necessary to achieve desired consistency. Desired consistency varies with type of application (trowel or gun), substrate (paper-backed lath or block) and whether the stucco is applied to a wall or a ceiling.

Note: Continuous mixing may cause excessive air entrainment.

2. SIKAWALL STUCCO BASE SANDED: Use mixer which is clean and free of foreign substances. Add 1.3 gallons (4.9 liters) of clean potable water to mixer. Slowly add one bag of STUCCO BASE SANDED, mix until mixture becomes homogeneous, then add additional 0.2 gallons (.75L) of water. Mix at low speed for a minimum of 3 minutes, until the mixture is smooth. Desired consistency varies with type of application (trowel or gun), substrate (paper-backed lath or block) and whether the stucco is applied to a wall or a ceiling. Note: Continuous mixing may cause excessive air entrainment.

NOTE: Do not overmix; never mix more than five minutes. Mix each batch for the same amount of time. Mix batches of the same size, using the same amount of water, to ensure consistency.

- ### **C. SIKAWALL STUCCO SURFACE LEVELER:**
- Mix and prepare 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. Mix with a low speed drill and a rust-free paddle at 400-500 rpm until thoroughly blended. Add an additional 0.3 gallons (1.1 liters) of water to adjust workability (for a maximum of 1.6 gallons (6 liters)). Let mixture stand for 5 – 10 minutes then remix for 1 minute.

D. Senergy 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. ALPHA DRY Base Coat: Mix and prepare 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.

- ### **E. SIKAWALL STUCCO PRIME & 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.

F. Finishes:

1. SENERFLEX, MAXLASTIC, SENEFLEX TERSUS, CHROMA and ENCAUSTO VERONA: 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: Gently mix the contents of the pail for 1 minute using a low RPM 1/2" drill equipped with a mixing paddle such as a Demand Twister or a Wind-lock B-MEW, B-M1 or B-M9.

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3.04 APPLICATION

A. Accessories: Attach Window/Door Drip Edge level and per manufacturer's instructions.

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

B. Senergy Air/Water-Resistive Barrier:

1. All sheathing joints and windows/openings must be protected, and the air/water-resistive barrier applied in accordance with the published Senershield product data sheet and details.
2. Substrate shall be dry, clean, sound, and free of releasing agents, paint, or other residue or coatings. Verify substrate is flat, free of fins or planar irregularities greater than 1/4" in 10' (6.4 mm in 3 m).
3. Unsatisfactory conditions shall be corrected before application of the Senergy air/water-resistive barriers.
4. Apply the SHEATHING FABRIC and Senergy air/water-resistive barrier in accordance with the Senergy air/water-resistive barrier product bulletin.
5. Apply the MAXFLASH in accordance with MAXFLASH product bulletin.
6. Installed materials shall be checked before continuing system application.
7. Ensure SHEATHING FABRIC Senergy air/water-resistive barrier or MAXFLASH overlaps the top flange of the starter track.
8. Installed materials shall be checked before continuing system application.

C. SIKAWALL DRAINAGE MAT DF:

1. Apply DRAINAGE MAT DF horizontally or vertically over Senergy air/water-resistive barrier ensuring it is free of wrinkles.
2. Abut all vertical and horizontal edge and secure DRAINAGE MAT DF to substrate with sufficient building staples or galvanized nails to remain in place prior to application lath.
3. The fabric side of the DRAINAGE MAT DF shall face outward toward the installer, and the nylon mat shall be in contact with the surface of the Senergy air/water-resistive barrier.

D. Trim: Refer to Senergy Stucco Wall Systems Lath and Trim Accessories technical bulletin.

NOTE TO SPECIFIER: It is the sole responsibility of the project design team, including the architect, engineer, etc., to ultimately determine specific expansion and control joint placement, width and design.

E. Lath: Install in accordance with all local code requirements, applicable standards and application procedures.

1. SIKAWALL PERMALATH 1000:

- a. Apply with minimum 3" (76mm) overlap at vertical and horizontal edges and overlap on flange of trim accessories. PERMALATH 1000 can be applied horizontally or vertically and should be applied such that it is flat and free of ripples, wrinkles, etc. Fastener system type appropriate for application and substrate. Fastener spacing 6" o.c. (152 mm) vertically and 16" o.c. (406 mm) horizontally. Apply selected SikaWall stucco base product within 60 days of PERMALATH 1000 application.

2. Woven/Welded Wire Lath:

- a. Wire or lath shall be applied with minimum 1" (25 mm) end laps and side laps.
- b. Furring crimps shall occur at maximum 6" (152 mm) intervals each way.
- c. Refer to ASTM C1063 for additional fastening information.

3. Expanded Metal Lath

- a. The metal lath shall be applied with minimum 1/2" (13 mm) side laps and 1" (25 mm) end laps.
- b. When end laps occur between supports, lace or wire ties the ends of the sheets with 0.0475" (1.2 mm) galvanized annealed steel wire.
- c. Refer to ASTM C1063 for additional fastening information.

NOTE: Supplemental fasteners, in the framing or sheathing, can be used to secure lath prior to application of stucco base.

F. Stucco Base Coat:

1. 3/8"-1/2" thickness (9.5-12.7 mm) application.
 - a. Following surface preparation and installation of the lath and accessories apply selected SikaWall stucco base mixture to the approved substrate by hand troweling or machine spraying to a thickness of 3/8" to 1/2" (9.5-12.77 mm), completely embedding the lath.
 - b. Use rod and darby to level the applied base coat without exposing the lath.

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- c. After initial set begins and surface has sufficiently hardened, use sponge or hard rubber float as required to fill voids, holes or imperfections, leaving the surface ready to receive Senergy Finish.
 - d. Damp cure for at least 48 hours by lightly and evenly fogging the surface with water at least twice a day. Direct sunlight, hot temperatures, low humidity and windy conditions may make additional fogging necessary.
 - e. Allow STUCCO BASE to cure a minimum of 6 days prior to application of EPS board shapes, Senergy Base Coat, STUCCO PRIME, TINTED PRIMER or Senergy Finish application.
2. 3/4"-7/8" thickness (19-22mm) application.
- a. Nominal plaster base coat thickness:
 - i. First coat "scratch": 3/8" (9.5mm)
 - ii. Second coat "brown": 3/8" (9.5mm)
 - b. Apply selected SikaWall stucco base mixture to the approved substrate by hand troweling or machine spraying with sufficient force to develop full adhesion between the stucco base mixture and the substrate.
 - c. Apply first coat to completely embed lath. Cross rake to provide key for second brown coat. Coat must be uniform in thickness. Ensure the first coat is properly "scratched" and sufficiently rigid to resist cracking prior to application and leveling of the second or "brown" coat.
 - d. Dampen scratch coat, apply brown coat to provide the required total thickness. Trowel Stucco Base into trim to seat trim. The lath shall be fully embedded in the coating and shall be completely covered. Coat must be uniform in thickness. Rod off to desired thickness, leveled with screeds, to provide a true, flat plane. Follow this by wood floating or darbying the surface.
 - e. After the surface has sufficiently hardened, use sponge or hard rubber float as required to fill voids, holes or imperfections, leaving the surface ready to receive Senergy Finish.
 - f. At subcontractor's option, the "double back" method of application, whereby the first and second coats are applied and cured as one system, may be used. If this system is used, the second coat (brown) should be applied as soon as the first coat is sufficiently rigid to resist cracking, the pressures of the second (brown) coat application and the leveling process.
 - g. Damp cure for at least 48 hours by lightly and evenly fogging the surface with water at least twice a day. Direct sunlight, hot temperatures, low humidity and wind may make additional fogging necessary.
 - h. Allow STUCCO BASE to cure a minimum of 6 days prior to application of EPS board shapes, Senergy Base Coat, STUCCO PRIME, TINTED PRIMER or Senergy Finish application.

G. Senergy Base Coat / SRT MESH or FLEXGUARD 4 Reinforcing Mesh:

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

H. Decorative Shapes:

1. Apply mixed Senergy ALPHA or ALPHA DRY adhesive/base coat to entire surface of insulation board using a stainless-steel trowel with 1/2"x 1/2" (13mm x 13mm) notches spaced 1/2" (13mm) apart or 3/8"x 3/8" (10mm x 10mm) notches spaced 3/8" (10 mm) apart.
2. Immediately set shape into place and apply pressure over entire surface of board to ensure positive uniform contact and high initial grab. Do not allow base coat to dry prior to installing.
3. Abut all joints tightly and ensure overall flush level surface.
4. Check adhesion periodically by removing a shape prior to set. Properly installed shapes will be difficult to remove, and Senergy Adhesive/Base Coat will be adhered to both the STUCCO BASE and the shape.
5. Fill 1/16" (1.6mm) and larger gaps between shapes with slivers of insulation board.

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6. Allow application of shapes to dry (normally 8 to 10 hours) prior to application of base coat/reinforcing mesh.
 7. Rasp flush any irregularities of the shapes greater than 1/16" (1.6 mm).
 8. Apply Senergy base coat to entire surface of insulation board with a stainless-steel trowel to embed the reinforcing mesh. Immediately place Senergy FLEXGUARD 4 Reinforcing Mesh against wet base coat and embed the reinforcing mesh into the base coat by troweling from the center to the edges.
 9. Lap reinforcing mesh 2 1/2" (64 mm) minimum at edges and 3" (75 mm) minimum onto stucco base.
 10. Ensure reinforcing mesh is continuous at corners, void of wrinkles and embedded in base coat so that no reinforcing mesh color is visible. If required, apply a second layer of base coat to achieve total nominal base coat/reinforcing mesh thickness of 1/16" (1.6 mm).
 11. Allow base coat with embedded reinforcing mesh to dry hard (normally 8 to 10 hours).
- I. SIKWALL STUCCO PRIME / TINTED PRIMER:**
1. Apply primer to cured stucco or base coat with a sprayer, 3/8" (10 mm) nap roller, or good quality latex paint brush at a rate of approximately 150-250 sq. ft. per gallon (3.6-6.1 m² per liter). Primer must be dry to the touch before proceeding to the Senergy Finish application.
- J. Senergy Finish Coat: SENERFLEX, MAXLASTIC, SENERFLEX TERSUS and CHROMA.**
1. Apply finish directly to the base coat with a clean, stainless steel trowel.
 2. Apply and level finish during the same operation to a minimum obtainable thickness consistent with uniform coverage. Maintain a wet edge on finish by applying and texturing continually over the wall surface.
 3. Work finish to corners, joints or other natural breaks and do not allow material to set up within an uninterrupted wall area. Float finish to achieve final texture.
- F. SIKAWALL GRANITE & STONE 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.
 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] [].
- 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.** Protect installed construction under provisions of Section [01 76 00] [].

3.07 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 installed construction under provisions of Section [01 76 00] [].

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. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL 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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