



Sentry Stucco Plus Wall System – Section 092400

1 and 3-coat impact-resistant premium cement plaster stucco system incorporating a fluid air/water-resistive barrier

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 Master Builders Solutions US, LLC (herein referred to as “Master Builders Solutions”) has prepared guidelines in the form of specifications, typical application details, and product bulletins to facilitate the design process only. Master Builders Solutions 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 Master Builders Solutions or otherwise, or for any changes which the purchasers, specifiers, designers or their appointed representatives may make Master Builders Solutions published comments.

DESIGNING AND DETAILING A SENERGY SENTRY STUCCO PLUS 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 Master Builders Solutions before application. The applicator shall verify that the proposed substrate is acceptable prior to the Sentry Stucco Plus Wall System installation.
3. The substrate systems shall be engineered with regard to structural performance by others.
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:

1. Prevent the accumulation of water behind the Sentry Stucco Plus Wall System, either by condensation or leakage through the wall construction, in the design and detailing of the wall assembly.
 - a. 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.

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- b. The SENERSHIELD-R/RS/VB air/water resistive barrier must be installed over the substrate according to current Senergy specifications and requirements.
- c. Openings must be flashed prior to window/door, HVAC, etc. installation to provide moisture protection of the building frame and interior. Refer to Senergy's Secondary Moisture Protection Barrier Guidelines for Senergy Stucco Wall System bulletin.
- d. 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:

1. 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:

1. Sentry Stucco Plus 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 Plus Wall 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 affects caused by the lack of slope will not be the responsibility of Master Builders Solutions 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 30.5 cm)]. Increase slope for northern climates to prevent accumulation of ice/snow on the surface.
2. The Sentry Stucco Plus Wall 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. Expansion joints in the system are required at building expansion joints, at prefabricated panel joints, floor lines of wood 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 Plus Wall System (windows, doors, lighting fixtures, electrical outlets, hose bibs, dryer vents, etc.). Refer to Senergy Sentry Stucco Plus Wall System typical details.

3. For a list of acceptable sealants refer to *Acceptable Sealants for use with Senergy Wall Systems*

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technical bulletin.

H. Decks:

1. Wood decks must be properly flashed prior to system application. For proper application, refer to Senergy Sentry Stucco Plus Wall System typical details. The Sentry Stucco Plus Wall 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 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 Moisture Protection Guidelines for Senergy Stucco Wall Systems* before installing windows, doors, and other penetrations through the wall.
4. Install copings and sealant immediately after installation of the Sentry Stucco Plus Wall System and when Senergy coatings are completely dry.

TECHNICAL INFORMATION

Consult Master Builders Solutions' Technical Services Department for specific recommendations concerning all other applications. Consult the Senergy website, senergy.master-builders-solutions.com, for additional information about products, systems and for updated literature.

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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 such work is specifically mentioned herein.
- B. Sentry Stucco Plus Wall System: composite wall system consisting of Senergy air/water resistive barrier, slip sheet, PERMALATH 1000 or acceptable expanded metal or wire lath, STUCCOBASE/STUCCOBASE PREMIX by Master Builders Solutions, 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.
- D. The system type shall be Sentry Stucco Plus Wall System as manufactured by Master Builders Solutions, Shakopee, MN.

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
- 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 STUCCOBASE™/STUCCOBASE™ PREMIX
- M. CCRR 0249 Intertek Code Compliance Research Report (PERMALATH 1000)
- N. ESR-2986 ICC Evaluation Service, Inc., ES Report™ (SENERSHIELD-R/RS)

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1.04 SUBMITTALS

- A. Submit under provisions of Section [01 33 00]
- B. Product Data: Provide data on Sentry Stucco Plus Wall 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 Plus Wall 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 current specifications, 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.
- B. Applicator: Approved by Master Builders Solutions 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, SENERSHIELD-R/RS/VB, Slip Sheet, PERMALATH 1000 or metal plaster base, 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
Water-resistive barrier coatings used under EIFS	ASTM E2570		Meets all performance requirements
Air Leakage of Air Barrier Assemblies	ASTM E2357	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
Air Permeance of Building Materials	ASTM E2178	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 E283		0.0185 l/s.m ² @ 75 Pa (0.0037 cfm/ft ² @ 1.57 psf)
Water Vapor Transmission	ASTM E96	Report value	Senershield-R - 18 Perms (grains/Hr. in Hg. ft ²) @ 10 mils wet film thickness Senershield-RS 18 Perms (grains/Hr. in Hg. ft ²) @ 12 mils wet film thickness Senershield-R/RS - 14 Perms (grains/Hr. in Hg. ft ²) @ 20 mils wet film thickness Senershield-VB - 0.09 Perms (grains/Hr. in Hg. ft ²) @ 26 mils wet film thickness
Pull-Off Strength of Coatings	ASTM D4541	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 D1970	No water penetration at galvanized roofing nail penetration under 127 mm (5") head of water after 3 days at 4° C (40° F)	Pass

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Surface Burning	ASTM E84	Flame Spread < 25 Smoke Development < 450	Meets Class A: Flame spread =15 Smoke developed = 95
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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
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 Plus Wall System and Component Performance:

TEST	METHOD	CRITERIA	RESULTS
Water penetration of exterior windows, curtain walls and doors by uniform static air pressure	4. ASTM E 331	No water penetration on the face of the test specimen at 136.9 Pa (2.86 psf).	Pass
Freeze-thaw Resistance	Per ICC-ES acceptance criteria AC-11	No sign of deleterious effects after 10 cycles	STUCCOBASE passed with no visible evidence of deterioration when examined under 5x magnification
Water Vapor Transmission	ASTM E96 -Wet Cup	Report Value	StuccoBase 20.4 perms

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Racking Load Test	ASTM E72	Report Value	Maximum load resistance 5530 pounds (250 kg)
Compressive Strength	ASTM C109	Report Value	22.4 MPa (3245 psi) average for STUCCOBASE
Flexural Strength	ASTM C348	Report Value	4.57 MPa (663 psi) average for STUCCOBASE
Surface Burning	ASTM E84	Report Value	<25 Flame Spread <450 Smoke Developed Includes PermaLath 1000, StuccoBase, and Senergy Finishes
Non-Combustibility	ASTM E136	No flaming, excess temperature rise or weight loss when exposed to 750°C (1382°F)	Pass StuccoBase with PermaLath 1000 or metal plaster base
Fire Resistance Rated Assemblies	ASTM E119	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") STUCCOBASE. • Load bearing wood stud wall with 16 mm (5/8") Type X gypsum sheathing and 9.5 mm (3/8") STUCCOBASE • Load bearing wood stud wall with 10.9 mm (7/16") OSB, PERMALATH 1000 & • 12.7 mm (1/2") STUCCOBASE • (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") STUCCOBASE

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

1.06 DELIVERY, STORAGE AND HANDLING

- Deliver, store and handle products under provisions of Section [01 65 00] [01 66 00] [].
- Deliver Master Builders Solutions materials in original unopened packages with manufacturer's labels intact.
- Protect Master Builders Solutions materials during transportation and installation to avoid physical damage.
- Store Master Builders Solutions materials in cool, dry place protected from freezing. Store at no less than 40°F/4°C (50°F/10°C AURORA STONE, AURORA TC-100 and ALUMINA finish).
- Store MAXFLASH at a minimum of 40F. In cold weather, keep containers at room temperature for at least 24 hours before using.
- Store insulation boards flat and protected from direct sunlight and extreme heat.
- Store Reinforcing Mesh, SHEATHING FABRIC and WS FLASH flexible flashing in cool, dry place.

1.07 PROJECT/SITE CONDITIONS

- Do not apply Master Builders Solutions material in ambient temperatures below 40°F/4°C (50°F/10°C for AURORA STONE, AURORA TC-100 and ALUMINA Finish). Provide properly vented, supplementary heat during installation and drying period when temperatures less than 40°F/4°C (50°F/10°C for AURORA STONE, AURORA TC-100 and ALUMINA Finish) prevail.

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- B. Do not apply materials to frozen surfaces.
- C. Maintain ambient temperature at or above 40°F/4°C (50°F/10°C for AURORA STONE, AURORA TC-100 and ALUMINA Finish) during and at least 24 hours after Sentry Stucco Ultra Wall System installation and until dry.

1.08 SEQUENCING AND SCHEDULING

- A. Coordinate and schedule installation of Sentry Stucco Plus 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 Master Builders Solutions – Senergy standard warranty for Senergy Sentry Stucco Plus Wall System installations under provisions of Section [01 70 00]. Reference Senergy's *Warranty Schedule* technical bulletin for specific information.
- B. Comply with Master Builders Solutions notification procedures to assure qualification for warranty.

PART 2 PRODUCTS

2.01 MANUFACTURERS

All components of the Sentry Stucco Plus Wall System shall be obtained from the system manufacturer or through an authorized distributor.

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 Master Builders Solutions Technical Service Department for further assistance.

A. Air/Water-Resistive Barrier Components:

1. 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. SHEATHING FABRIC: A spun-bonded non-woven reinforced polyester web for use with Senergy fluid applied air/weather-resistive barriers.
 - b. MAXFLASH: A one-component elastomeric material for use as a flexible flashing membrane.
3. **Transitional Membrane / Expansion Joint Flashing (If selected, both a & b are required)**
 - a. WS FLASH: 30-mil thick, self-sealing, self-healing composite membrane of polyester fabric and rubberized asphalt. Compatible with Senergy liquid air/weather resistive barriers.
 - b. FLASHING PRIMER: A water-based primer for use prior to application of WS FLASH on all acceptable surfaces.
4. **Cold Temperature Additive:**
LT ADDITIVE: Blending of LT ADDITIVE with a pail of SENERSHIELD-R/RS/VB enables application of these materials at temperatures as low as 25°F (-4°C).

B. Slip Sheet: Minimum one layer of building paper.

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 Plus Wall System. Delete those products not utilized. Reference Senergy Lath & Trim Accessories System support bulletin for additional information.

1. PERMALATH 1000 by Master Builders Solutions: 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.

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2. Woven or Welded Wire Lath: A minimum No. 20 gauge, 25.4 mm (1") galvanized woven wire fabric is for use with 9.5-12.7mm (3/8"-1/2") 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 1.36 kg/m² (2.5 lbs./yd²). Refer to ASTM C 1063 for additional information.

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

1. PERMALATH 1000: Washers: 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 1" (25 mm) 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 1 1/4" (32 mm) long x 1/8" (2.5 mm) diameter VersaPin Gripshank® fasteners by Aerosmith Fastening Systems with Lath Plates; 5/8" (16 mm) 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; 5/8" (16 mm) 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
 - b. Metal framing: Screws appropriate to framing gauge, not less than 3/8" penetration through framing. 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 not less than 3/4" or screws penetrating wood 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. STUCCOBASE by Master Builders Solutions: Factory-blended stucco mixture of Portland cement, reinforcing fibers, and proprietary ingredients.
2. STUCCOBASE PREMIX by Master Builders Solutions: Factory-blended stucco mixture of Portland cement, reinforcing fibers, sand, and proprietary ingredients.

- F. Plaster Sand: (Required if STUCCOBASE 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: Percent retained by weight.

Retained on ± 2 Percent

U.S. Standard Sieve	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

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G. Water: Clean and potable without foreign matter.

H. Senergy Adhesive/Base Coat: (Required for Trim Shapes and Reinforcing Mesh)

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

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

J. DIAMONDSHIELD Stucco Reinforcing Mesh by Master Builders Solutions: A balanced, open-grid triaxial glass fiber mesh that distributes stress across three directions for superior crack resistance properties on new or retrofit stucco applications.

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

L. STUCCOPRIME by Master Builders Solutions: A 100% acrylic-based primer; color [] to closely match the selected Senergy Finish Color.

NOTE TO SPECIFIER: STUCCOPRIME is recommended for CLASSIC finish texture and required for AURORA TC-100, AURORA STONE and ALUMINA finishes. Although optional in other applications, Senergy highly recommends the use of STUCCOPRIME prior to application of Senergy Finish over applications of Senergy Sentry Stucco Ultra wall system “brown coat”. The application of STUCCOPRIME will enhance color uniformity, performance and ease Senergy Finish application and will minimize the likelihood of read-through.

M. 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. COARSE: A heavy “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.
 - c. FINE: Utilizes uniformly-sized aggregates for a uniform, fine texture.
 - d. TEXTURE: Can achieve a wide variety of free-formed, textured appearances, including stipple and skip-trowel
 - e. SAHARA: Provides a uniform, “pebble” appearance.
2. SENERLASTIC Finish: 100% acrylic based, textured elastomeric finish that provides excellent flexibility, weatherability, and maximum resistance to mildew growth, 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. COARSE: A heavy “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.
 - c. FINE: Utilizes uniformly-sized aggregates for a uniform, fine texture.
 - d. TEXTURE: Can achieve a wide variety of free-formed, textured appearances, including stipple and skip-trowel
 - e. SAHARA: 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. F1.0: A 1.0 mm uniform aggregate creating a fine texture.
 - b. M1.5: A 1.5 mm uniform aggregate creating a medium sand texture.
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. AURORA TC-100: Provides a stone-like appearance, either rough or smooth depending upon application.
 - d. AURORA STONE: Provides a rough, stone-like appearance.
 - e. ALUMINA: 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
- N. ANTICOGLAZE Solutions Glaze/Stain by Master Builders (Optional): 100% acrylic antiquing stain product used to impart an 'old world' mottled look to textured finishes.

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 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,

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- 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. Refer to Senergy's Secondary Moisture Protection Barrier Guidelines for Senergy Stucco Wall System bulletin for further guidance.
 - 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 Plus 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 Plus 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 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.
2. Cold Temperature Additive: LT ADDITIVE: Pour the entire contents of one (1) bottle of LT ADDITIVE into one (1) full pail of SENERSHIELD-R/RS/VB. Mix with a clean, rust-free paddle and drill until fully blended.

B. Stucco Base Coat:

1. STUCCOBASE: Use mixer which is clean and free of foreign substances. Add 5-6 gallons (18.9-22.7 liters) of clean potable water to mixer per one bag of STUCCOBASE. Add one bag of STUCCOBASE and one half 100-120 lbs. (45.4-54.4 kg) of the required plaster sand (ASTM C144 or ASTM C897). Mix for 3-4 minutes at normal mixing speed while adding the remainder 100-120 lbs. (45.4-54.4 kg) of the plaster sand. Allow material to set for 2-4 minutes and then remix adding water 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. STUCCOBASE PREMIX: Use mixer which is clean and free of foreign substances. Add 2-2.5 gallons (7.6-9.5 liters) of clean potable water to mixer. Slowly add one bag of STUCCOBASE PREMIX. Mix for one minute at normal mixing speed. Allow material to set for 2-4 minutes with mixing blades at rest. Then re-mix, adding water to achieve desired consistency. Desired consistency varies with type of application (trowel or gun), substrate (paper-backed lath or block)

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and whether the stucco is applied to a wall or a ceiling. Note: Continuous mixing may cause excessive air entrainment.

C. 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

D. STUCCOPRIME 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.

E. Senergy Finishes: SENERFLEX, SENERLASIC, SENERFLEX TERSUS, 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.

F. Specialty Finish: AURORA TC-100, AURORA STONE and ALUMINA Finish: 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.

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. Air/Water-Resistive Barrier:

1. All sheathing joints and windows/openings must be protected and the air/water-resistive barrier applied in accordance with *Air/Water-Resistive/Vapor Barrier Application Guideline* technical bulletin.
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. Slip Sheet:

1. Install slip sheet over dry Senergy Air/Water-Resistive Barrier per manufacturer's recommendations.

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. 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

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- application and substrate. Fastener spacing 6" o.c. (152 mm) vertically and 16" o.c. (406 mm) horizontally.
- b. Apply STUCCOBASE 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 STUCCOBASE.

F. Stucco Base Coat:

1. Senergy Sentry Stucco Plus Wall System application 3/8"-1/2" thickness (9.5-12.7 mm).
 - a. Following surface preparation and installation of the lath and accessories apply selected 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.
 - 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. 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 rigid.
 - e. 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.
 - f. Allow stucco base to cure a minimum of 6 days prior to application of EPS board shapes, Senergy Base Coat, STUCCOPRIME or Senergy Finish application.
2. Senergy Sentry Stucco Plus Wall System application 3/4"-7/8" thickness (19-22mm).
 - 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 stucco base mixture to the approved substrate by hand troweling or machine spraying with sufficient force to develop full adhesion between 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 second 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. 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.
 - g. Allow stucco base to cure a minimum of 6 days prior to application of EPS board shapes, Senergy Base Coat, STUCCOPRIME or Senergy Finish application.

G. Senergy Adhesive/Base Coat:

NOTE TO SPECIFIER: If specifying the use of reinforcing mesh, move on to the next step and delete H from this section of the specification.

1. Apply a skim coat of Senergy Base Coat, approximately 1/16" (1.6mm) thick to properly cured "brown coat" of stucco base.

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2. Allow to dry hard (normally 8 to 10 hours).

H. DIAMONDSHIELD Reinforcing Mesh:

1. Base coat shall be applied to achieve reinforcing mesh embedment with no reinforcing mesh color visible.
2. Install DIAMONDSHIELD over properly cured Senergy Sentry Stucco Plus Wall System "brown coat" of stucco base.
3. Apply mixed Senergy Base Coat to entire surface of "brown coat" with a stainless-steel trowel to embed the reinforcing mesh.
4. Immediately place DIAMONDSHIELD Reinforcing Mesh against wet base coat and embed the reinforcing mesh into the base coat by troweling from the center to the edges.
5. Lap reinforcing mesh 2 1/2" (64 mm) minimum at edges.
6. Ensure reinforcing mesh is continuous at corners, void of wrinkles and embedded in base coat so that no reinforcing mesh color is visible.
7. If required, apply a second layer of base coat to achieve total nominal base coat/reinforcing mesh thickness of 1/16" (1.6 mm).
8. Allow base coat with embedded reinforcing mesh to dry hard (normally 8 to 10 hours).

I. Decorative Shapes:

1. Apply mixed Senergy 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.
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). Senergy Base Coat / Reinforcing Mesh: Base coat shall be applied to achieve reinforcing mesh embedment with no reinforcing mesh color visible.
8. For Senergy FLEXGUARD 4, apply Senergy Base Coat to entire surface of insulation board with a stainless-steel trowel to embed the reinforcing mesh.
9. 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.
10. Lap reinforcing mesh 2 1/2" (64 mm) minimum at edges and 3" (75 mm) minimum onto STUCCOBASE.
11. Ensure reinforcing mesh is continuous at corners, void of wrinkles and embedded in base coat so that no reinforcing mesh color is visible.
12. If required, apply a second layer of base coat to achieve total nominal base coat/reinforcing mesh thickness of 1/16" (1.6 mm).
13. Allow base coat with embedded reinforcing mesh to dry hard (normally 8 to 10 hours).

J. STUCCOPRIME:

1. Base coat shall be clean, dry, sound and free of paint, contaminants 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).
2. Apply STUCCOPRIME to substrate 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).
3. STUCCOPRIME shall be dry to the touch before proceeding to the Senergy Finish application.

K. Senergy Finish Coat: SENERFLEX, SENERLASTIC, SENERFLEX TERSUS and CHROMA.

1. Apply Senergy Finish directly to the 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.

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5. Float Senergy Finish to achieve final texture.

L. Specialty Finish:

1. AURORA TC-100 Finish:

- a. Apply TINTED PRIMER by Master Builders Solutions to substrate in accordance with current product bulletin. Primer shall be of corresponding color for selected AURORA TC-100 Finish color. Allow Primer to dry to the touch before proceeding Finish application.
- b. Apply a tight coat of finish with a clean, stainless steel trowel.
- c. Maintain a wet edge on finish by applying and leveling continually over the wall surface.
- d. 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.
- e. For a smooth appearance, use a stainless-steel trowel and apply the second coat of finish. Achieve final texture using circular motions.
- f. For a textured appearance, apply the second coat of finish using a spray gun and hopper. Double-back to achieve final texture.
- g. Total thickness of finish shall be approximately 1/16 (1.6 mm).

2. AURORA STONE Finish:

- a. Apply TINTED PRIMER by Master Builders Solutions to substrate in accordance with current product bulletin. Primer shall be of corresponding color for selected AURORA STONE Finish color. Allow Primer to dry to the touch before proceeding Finish application.
- b. Apply a coat of Finish using a spray gun and hopper, maintaining a wet edge. Work to corners, joints or other natural breaks and do not allow material to set up within an uninterrupted wall area.
- c. Allow first coat of AURORA STONE Finish to set until surface is completely dry prior to applying a second coat of Finish.
- d. Apply a second coat of Finish using a spray gun and hopper; double back to achieve final texture.
- e. Thickness of Finish may vary between 1/16" (1.6 mm) and 1/8" (3.2 mm), depending upon texture.

Note: Spraying of AURORA STONE shall be in the same manner and direction and by the same mechanic on a particular elevation or project whenever possible, to maintain a uniform appearance. Maintain consistent air pressure to minimize texture variations. Stator or rotor design pumps are not recommended.

3. ALUMINA Finish:

- a. Apply TINTED PRIMER by Master Builders Solutions to substrate in accordance with current product bulletin. Primer shall be of corresponding color for selected ALUMINA Finish color. Allow Primer to dry to the touch before proceeding Finish application.
- b. Apply a tight coat of finish with a clean, stainless steel trowel.
- c. Maintain a wet edge on finish by applying and leveling continually over the wall surface.
- d. 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
- e. Use a stainless-steel trowel and apply the second coat of finish. Achieve final texture using circular motions
- f. Total thickness of finish may be between 1/16" (1.6 mm) and 1/8" (3.2 mm).

F. ANTICOGLAZE Glaze/Stain: Apply in accordance with recommendations contained in current product literature.

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 STUCCOBASE from rain, snow and frost for 48-72 hours following application.

B. Protect Senergy base coat, air/water-resistive barriers, primer and finish from rain and temperatures below 40°F (4°C) for 24 hours or until dry.

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

END OF SECTION

WARRANTY

Master Builders Solutions US, LLC (hereinafter "Master Builders Solutions") warrants this product to be free from manufacturing defects and to meet the technical properties on the current Product Bulletin, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. MASTER BUILDERS SOLUTIONS MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is shipment to purchaser of product equal to the amount of product that fails to meet this warranty or refund of the original purchase price of product that fails to meet this warranty, at the sole option of Master Builders Solutions. In the absence of an extended warranty issued by Master Builders Solutions, any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. Master Builders Solutions WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND.

Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on Master Builders Solutions' present knowledge and experience. However, Master Builders Solutions assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. Master Builders Solutions reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.