

Fastwall WaterMaster with Drain Mat Wall System CSI 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 LaHabra® 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 LaHabra® 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 LaHabra Fastwall WaterMaster with Drain Mat 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 Fastwall WaterMaster with Drain Mat system installation.
3. The substrate systems shall be engineered with regard to structural performance by others. Framing spacing for the LaHabra Fastwall WaterMaster with Drain Mat system is a maximum 24” o.c. (610 mm); maximum 16” o.c. (406 mm) when SIKAWALL PERMALATH 1000 is used.
4. Refer to LaHabra’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 Fastwall WaterMaster with Drain Mat 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 Finestop or WeatherSeal Spray & Roll-ON air/water-resistive barrier must be installed over the substrate according to current LaHabra specifications and requirements.

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3. Openings must be flashed prior to window/door, HVAC, etc. installation to provide moisture protection of the building frame and interior. Reference Finestop or WeatherSeal Spray & Roll-On published details and product data sheet.
 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:** Fastwall WaterMaster with Drain Mat 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 Fastwall WaterMaster with Drain Mat 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 Fastwall WaterMaster with Drain Mat 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 LaHabra *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 LaHabra Fastwall WaterMaster with Drain Mat system (windows, doors, lighting fixtures, electrical outlets, hose bibs, dryer vents, etc.). Refer to LaHabra Fastwall WaterMaster with Drain Mat system typical details.**
3. For a list of acceptable sealants refer to *Acceptable Sealants for use with LaHabra Wall Systems* technical bulletin.
- H. Decks:** Wood decks must be properly flashed prior to system application. For proper application, refer

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to LaHabra Fastwall WaterMaster with Drain Mat system typical details. The Fastwall WaterMaster with Drain Mat 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 LaHabra typical details before installing windows, doors, and other penetrations through the wall.
4. Install copings and sealant immediately after installation of the Fastwall WaterMaster with Drain Mat system and when LaHabra coatings are completely dry.

TECHNICAL INFORMATION

Consult Sika Facades' Technical Services Department for specific recommendations concerning all other applications. Consult the LaHabra website, usa.sika.com/lahabra, 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. Fastwall WaterMaster with Drain Mat Wall System: composite wall system of LaHabra air/water resistive barrier, SIKAWALL DRAINAGE MAT DF, SIKAWALL PERMALATH 1000 or acceptable expanded metal or wire lath, SIKAWALL STUCCO BASE, LaHabra Base Coat (if specified), SikaWall Reinforcing Mesh (if specified) and LaHabra Finish Coat.
- C. SikaWall and LaHabra 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 Fastwall WaterMaster with Drain Mat 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 |

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1.03 REFERENCES

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|----------------|---|
| 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. ESR-2564 | ICC Evaluation Service, Inc., ES Report™ (SIKAWALL STUCCO BASE) |
| M. CCRR 0249 | Intertek Code Compliance Research Report (PERMALATH 1000) |
| N. ESR-2986 | ICC Evaluation Service, Inc., ES Report™ (FINESTOP RA/RS) |
| O. ESR-2045 | ICC Evaluation Service, Inc., ES Report™ (WEATHERSEAL SPRAY & ROLL) |

1.04 SUBMITTALS

- A. Submit under provisions of Section [01 33 00]
- B. Product Data: Provide data on Fastwall WaterMaster with Drain Mat 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 Fastwall WaterMaster with Drain Mat 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, LaHabra FINESTOP RA/RS/VB OR PAREX WEATHERSEAL SPRAY & ROLL-ON, SIKAWALL DRAINAGE MAT DF, SIKAWALL PERMALATH 1000 or metal plaster base, SIKAWALL STUCCO BASE, SikaWall Base Coat (if specified), SikaWall Reinforcing Mesh (if specified), LaHabra Finish Coat and typical sealant/flashing conditions.

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E. Testing:

1. Finestop 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 |
| 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 | Finestop RA - 18 Perms (grains/Hr. in Hg. ft ²) @ 10 mils wet film thickness Finestop RS 18 Perms (grains/Hr. in Hg. ft ²) @ 12 mils wet film thickness Finestop RA/RS - 14 Perms (grains/Hr. in Hg. ft ²) @ 20/24 mils wet film thickness Finestop -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. Finestop 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. Finestop 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 | Pass - tested over ASTM C1177 glass-mat sheathing, OSB, plywood, PVC and |

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|--|----------------------------------|--|-------------------|
| | | After Elevated Temperature Exposure After Water Immersion | 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. WeatherSeal Spray & Roll-On Barrier Minimum Performance

| TEST | METHOD | CRITERIA | RESULTS |
|---------------------------------------|----------------------------|--|--|
| Accelerated Weathering | AC 212 | 25 Cycles followed by Hydrostatic Pressure Test: No water penetration on the plane of the exterior facing side of the substrate. | Pass: no water penetration |
| Air Infiltration | ASTM E2178 | Calculated flow Rate at 75 Pa (1.57 lb/ft2, 0.3 in H2O) = < 0.02 L/m2*s (< 0.004 cfm/ft2) | < .00001 L/m2*s (0.00001 cfm/ft2) at 75 Pa (1.57 lb/ft2, 0.3 in H2O) |
| Air Leakage of Air Barrier Assemblies | ASTM E2357 | Pass < 0.2 L / s·m2 at 75 Pa) (< 0.04 cfm / ft2 at 1.57 psf) | Pass |
| Air Leakage | ASTM E283 | No Criteria | < 0.004 cfm/ft2 |
| Elongation | ASTM D412 | No Criteria | 360% |
| Flexibility | ASTM D522 | No Criteria | No Cracking at 1/8" (3 mm) |
| Freeze-Thaw Resistance | ASTM E 2485 | 10 Cycles | Pass – No Deleterious Effects |
| Hydrostatic Pressure Test | AATCC 127 (Water Column) | Resist 21.6 in (55 cm) water for 5 hours before and after aging | Pass: no water penetration |
| Nail Seal ability, Head of Water | ASTM D1970 | No Criteria | Pass 5 inches of water |
| Evaluation of Fire Propagation | NFPA 285 | In Accordance with IBC Chapter 26 | Meets requirements for use on all Types of construction |
| Radiant heat exposure | NFPA 268 | In Accordance with IBC Chapter 26 | No ignition upon 20-minute radiant heat exposure at 1.25 w/cm2. |
| Pull off Strength | ASTM D 4541 | No Water Penetration | Pass - no water penetration |
| Racking | ASTM E72 | Deflection at 1/8 in (3.2 mm) | Pass -No cracking at field, joints or flashing connection |
| Structural Loading | ASTM E1233 Procedure A | 10 Cycles @ 80% design load | Pass -No cracking at field, joints or flashing connection |
| Restrained Environmental | ICC ES AC 212 / ASTM E2570 | 5 Cycles of and drying | Pass -No cracking at field, joints or flashing connection |
| Surface Burning Characteristics | ASTM E84 | Flame Spread <25 Smoke Developed <450 | Flame Spread =0 Smoke Developed =0 |
| Tensile Bond Strength | ASTM E 2134/ ASTM C 297 | Minimum 15 psi (104 kPa) | Pass all listed substrates and flashing materials |
| Water Resistance | ASTM D 2247 | 14 Days | Pass – No Deleterious Effects. |
| Water Penetration | ASTM E331 | 2.86 psf (137 Pa) for 15 minutes | Pass 25.4 psf (1216 Pa) for 165 minutes |
| Water Penetration | ASTM E331 | Tested after Structural Loading, Racking and Restrained Environmental Cycling at 2.86 psf (137 Pa) for 15 minutes | No Water Penetration |
| Water vapor transmission | ASTM E96 Procedure B | Vapor Permeable | 12.0 perms |
| Weathering | ICC ES AC 212 / ASTM E2570 | 210 hours of UV Exposure, 25 cycles of accelerated weathering, 21.6 in (549 mm) water column for 5 hours | Pass |

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| Wind Driven Rain | F.S. TT-C-555B | No Criteria | Pass |
| VOC | EPA Reference Test Method 24 | US EPA, South Coast AQMD and Greenseal Standard | 10 g/L |

5. Fastwall WaterMaster with Drain Mat Wall System and Component Performance:

| TEST | METHOD | CRITERIA | RESULTS |
|----------------------------------|------------|--|---|
| Accelerated Weathering | ASTM G153 | 2000 Hours | No Deleterious Effect |
| Freeze-Thaw Resistance | ICC AC 11 | 10 Cycles | Pass |
| Transverse Wind Load Resistance | ASTM E330 | Meet Design Loads | Refer to ICC-ES ESR-2564 |
| Fire Resistance Rated Assemblies | ASTM E 119 | One Hour Fire 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 | Refer to ICC-ES ESR-2564 |
| Drainage Efficiency | ICC AC 11 | 90 % | Refer to ICC-ES ESR-2564 |
| Surface Burning | ASTM E 84 | Report Value | <25 Flame Spread <450 Smoke Developed Includes PermaLath 1000, SikaWall Stucco Base, and LaHabra Finishes |

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

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 |
| 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 ½" 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

- Deliver, store and handle products under provisions of Section [01 65 00] [01 66 00] [].
- Deliver Sika materials in original unopened packages with manufacturer's labels intact.
- Protect Sika materials during transportation and installation to avoid physical damage.
- 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).
- Store MAXFLASH at a minimum of 40°F. 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 Flash Seal NP flexible flashing in a cool, dry place protected from exposure to moisture.

1.07 PROJECT/SITE CONDITIONS

- 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).
- Do not apply materials to frozen surfaces.
- Maintain ambient temperature at or above 40°F/4°C (50°F/10°C for GRANITE & STONE Finish) during

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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 Fastwall WaterMaster with Drain Mat 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 LaHabra Fastwall WaterMaster with Drain Mat wall system installations under provisions of Section [01 70 00].
- B. Comply with Sika Facades' notification procedures to assure qualification for warranty.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. LaHabra Fastwall WaterMaster with Drain Mat 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.

A. Air/Water-Resistive Barrier Components:

1. Approved Air/Water-Resistive Barrier: **(Required, Select One)**
 - a. LAHABRA FINESTOP-RA: A one-component fluid-applied vapor permeable air/water-resistive barrier.
 - b. LAHABRA FINESTOP RS: A one-component fluid-applied vapor permeable air/water-resistive barrier for use with airless spray equipment.
 - c. LAHABRA FINESTOP VB: A one-component fluid-applied vapor impermeable air/water-resistive barrier.
 - d. PAREX WEATHERSEAL SPRAY & ROLL-ON: A 100% acrylic elastomeric waterproof membrane and air 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 approved 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 approved 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 LaHabra Fastwall WaterMaster with Drain Mat wall system. Delete those products not utilized. Reference *LaHabra Lath & Trim Accessories System* support bulletin for additional information.

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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.
 - 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. [Stucco Base Coat for 3/8-7/8" Stucco conforming to ICC-ES AC11 for 1-coat stucco](#):
 - a. [SIKWALL STUCCO BASE CONCENTRATE](#): Factory-blended stucco mixture of Portland cement, reinforcing fibers, and proprietary ingredients. Mixed in the field with sand and water.
 - b. [SIKWALL STUCCO BASE SANDED](#): Factory-blended stucco mixture of Portland cement, reinforcing fibers, sand, and proprietary ingredients. Mixed in the field with water.

OR

2. [Stucco Base Coat for 3/4-7/8" Stucco Only](#):
 - a. [LAHABRA FIBER-47 CONCENTRATE](#): A factory-blended Portland cement, fibers, hydrated lime and proprietary ingredients, cement scratch and brown coat mixed in the field with sand, conforming to [ASTM C926](#).
 - b. [LAHABRA FIBER-47 SANDED](#): A factory blend of Portland cement, lime, fibers, proprietary

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additives and sand, scratch and brown coat, mixed in the field with water, conforming to ASTM C926.

- F. Plaster Sand: (Required if SIKAWALL STUCCO BASE CONCENTRATE or LAHABRA FIBER -47 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 \pm 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. LaHabra Adhesive/Base Coat: (Required for Trim Shapes)**

- LAHABRA A/BC Base Coat: A 100% acrylic base coat, field-mixed with Type I, IL or Type II Portland cement. It has a creamy texture that is easily spread.
- LAHABRA A/BC 1-Step Base Coat: A dry-mix polymer adhesive and base coat containing Portland cement and requiring only water for mixing.

- J. Portland cement (Required if A/BC BASE is Selected):** Conform to ASTM C150, Type I, IL, 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 LAHABRA base coat or SIKAWALL STUCCO SURFACE LEVELER.

- L. LAHABRA STANDARD MESH 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 LaHabra acrylic base coats.

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

NOTE TO SPECIFIER: STUCCO PRIME is recommended for NATURAL SWIRL finish texture. Although optional in other applications, LaHabra recommends the use of STUCCO PRIME prior to application of LaHabra Finish over applications of LaHabra Fastwall WaterMaster with Drain Mat wall system “brown coat”. The application of STUCCO PRIME will enhance color uniformity, performance and ease LaHabra 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 LaHabra wall systems. Color to closely match the selected LaHabra Finish Coat.

- O. Finish Coat: (Required, Select One or More Finishes and Textures)**

- PEBBLETEX Finish: 100% acrylic polymer finishes with advanced technology to improve long-term performance and dirt pick-up resistance; air cured, compatible with base coat; LaHabra finish color [] as selected; finish texture:
 - NATURAL SWIRL: 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.

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- b. LIMESTONE: Utilizes uniformly sized aggregates for a uniform, fine texture.
- c. FINETEX: Can achieve a wide variety of free-formed, textured appearances, including stipple and skip-trowel.
- d. MOJAVE: 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; LaHabra 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. PEBBLETEX TERSUS Finish: Modified acrylic based finish with water repellent properties, compatible with base coat; LaHabra finish color [] as selected; finish texture:
 - a. NATURAL SWIRL: 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.
 - b. LIMESTONE: Utilizes uniformly sized aggregates for a uniform, fine texture.
 - c. FINETEX: Can achieve a wide variety of free-formed, textured appearances, including stipple and skip-trowel.
 - d. MOJAVE: 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; LaHabra 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.
- 6. LAHABRA PERMA-FLEX STUCCO FINISH: A 100% acrylic-based textured finish for stucco only.
 - a. Finish texture and color as selected by the project designer.

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 LaHabra’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.

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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 LaHabra 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 LaHabra's Fastwall WaterMaster with Drain Mat 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 LaHabra Fastwall WaterMaster with Drain Mat 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.

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A. Air/Water-Resistive Barriers:

1. FINESTOP-R/RS/VB and WeatherSeal Spray & Roll-On: 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 gal. (11.35 L) 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.

3. LAHABRA FIBER-47 CONCENTRATE: Mix 5.5-6.5 gal. (20.5-24.5L) of water and 3-4.5 ft³ (240-360 lbs. or 109-163 kg) of sand that conforms to ASTM C926 requirements to each bag of LaHabra Fiber-47 Concentrate at the time of use. Mix at low speed for a minimum of 3 minutes, until the mixture is smooth. Do not overmix; never mix more than 5 minutes. Mix each batch for the same amount of time.
4. LAHABRA FIBER-47 SANDED: Add to plaster mixer 1 1/2-2 gal. (5.6-7.6L) of water for each 80 lbs. (36 kg) bag of LaHabra Fiber-47 Sanded to be mixed in a batch. Mixing water shall be cool potable at a uniform temperature above 40°F/5°C. Maintain same water parameters for all batches. Add LaHabra Fiber-47 Sanded to the mixer. Mix at low speed for a minimum of 3 minutes, until the mixture is smooth. Do not overmix; never mix more than 5 minutes. For hand applications, stop mixer and allow mix to slake for 8 minutes. Briefly re-mix for approximately 2 minutes before using.

C. SIKAWALL STUCCO SURFACE LEVELER: Mix and prepare each bag in a 5-gallon (19L) pail. Fill the container with approximately 1.3 gal. (4.9 L) 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 (1.1L) of water to adjust workability (for a maximum of 1.6 gal. (6 liters)). Let mixture stand for 5-10 minutes then remix for 1 minute.

D. LaHabra Base Coat:

1. A/BC 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. A/BC 1-Step Base Coat: Mix and prepare each bag in a 5 gal. (19 L) pail. Fill the container with approximately 1.5 gal. (5.6 L) of clean, potable water. Add base coat in small increments, mixing after each additional increment. Mix base coat and water with a clean, rust-free paddle and drill until thoroughly blended. Additional A/BC 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:

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1. PEBBLETEX, MAXLASTIC, PEBBLETEX TERSUS, PERMA-FLEX, 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.

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 that 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 the published 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 selected air/water-resistive barriers.
4. Apply the SHEATHING FABRIC and selected air/water-resistive barrier in accordance with the selected 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 selected 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 selected 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 selected air/water-resistive barrier.

D. Trim: Refer to LaHabra 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"

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(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. SIKWALL STUCCO BASE CONCENTRATE or SANDED ONLY: 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.
 - 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 LaHabra 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, acrylic base coats, STUCCO PRIME, TINTED PRIMER or LaHabra finish application.
2. LAHABRA FIBER-47 or SIKAWALL STUCCO BASE: 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 LaHabra 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, acrylic base coat, SikaWall STUCCO SURFACE LEVELER, STUCCO PRIME, TINTED PRIMER or LaHabra finish application.

G. LaHabra Base Coat / SIKAWALL SRT MESH or LAHABRA STANDARD MESH 4 Reinforcing Mesh:

1. LaHabra base coat shall be applied to achieve reinforcing mesh embedment with no reinforcing mesh color visible. Apply mixed LaHabra 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.

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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 selected 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 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).
8. Apply selected LaHabra base coat to entire surface of insulation board with a stainless-steel trowel to embed the reinforcing mesh. Immediately place LaHabra STANDARD MESH 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 selected finish application.

J. Finish Coat: PEBBLETEX, MAXLASTIC, PEBBLETEX TERSUS, PERMA-FLEX 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.

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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/lahabra or by calling SIKA Facades' Technical Service Department at 1-800-589-1336. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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 SIKA products are subject to the Terms and Conditions of Sale which are available at <https://usa.sika.com/>.