PB Wall System – Section 07 24 13

Polymer-Based Exterior Insulation and Finish System providing a primary barrier moisture control.

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 Parex® 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 Parex® 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 PB 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/240 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, eXP™ sheathing, GlasRoc® sheathing, Securock™ glass-mat sheathing, and DensGlass® exterior sheathing, DensElement (sheathing only); gypsum sheathing (ASTM C79/C1396).
2. Painted and otherwise coated surfaces of brick, unit masonry, stucco 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 Parex PB Wall System installation. Field adhesion tests shall be performed as necessary.
3. The substrate systems shall be engineered with regard to structural performance by others.

C. Moisture Control:

1. Prevent the accumulation of water behind the EIFS, 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, and at the base of the wall and anywhere else required by local code.
   c. Vapor Diffusion and Condensation: Perform a dew point analysis of the wall assembly to determine the potential for accumulation of moisture in the wall assembly as a result of water vapor diffusion and condensation. Adjust insulation thickness and/or other wall assembly components accordingly to minimize the risk of condensation. Avoid the use of vapor retarders on the interior side of the wall in warm, humid climates.

D. Impact Resistance:

1. Provide ultra-high impact resistance to a minimum height of 6'- 0" (1.8m) above finished grade at all areas accessible to pedestrian traffic and other areas exposed to abnormal stress or potential impact. Indicate the areas with impact resistance requirements other than "standard" on contract drawings.

E. Color Selection:

1. The use of dark colors 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 EIFS that incorporate expanded polystyrene (EPS). EPS has a sustained service temperature limitation of approximately 160°F (71°C).

F. 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 where slip tracks are used in steel frame construction, where substrates change and where structural movement is anticipated. It is the sole responsibility of the project design team, including the architect, engineer, etc., to ultimately determine specific expansion joint placement, width and design. Detail specific locations in construction drawings.
2. Sealant joints are required at all penetrations through the Parex PB (windows, doors, etc.)
3. Specify compatible closed cell backer rod and acceptable sealant that has been evaluated in accordance with ASTM C 1382, “Test Method for Determining Tensile Adhesion Properties of Sealants When Used in Exterior Insulation and Finish System (EIFS) Joints,” and that meets minimum 50% elongation after conditioning.
4. The system must be properly terminated (backwrapped a min. of 2 1/2", properly sealed, flashed) at all penetrations, lighting fixtures, electrical outlets, hose bibs, dryer vents, etc.

G. Grade Condition: The Parex PB 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 6” (152 mm) clearance above grade or as required by code, a minimum 1” (25 mm) clearance above finished grade (sidewalk/concrete flatwork).

H. Trim, Projecting Architectural Features:

(NOTE TO SPECIFIER: Installation of the Parex Wall System outside the slope guidelines referenced in this specification may still qualify for a standard warranty; however, low sloping EIFS conditions are subject to extreme heat, increased maintenance and premature deterioration of the system. Any deleterious effects caused by the lack of slope will not be the responsibility of Sika. Parex wall systems are designed and tested to be applied to vertical surfaces. 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 EIFS. 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 (27º) with a maximum length of 12" (30.5 cm) [e.g. 15 cm in 30.5 cm (6" in 12")]. Increase slope for northern climates to prevent accumulation of ice/snow on the surface.

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. Provide site grading such that Parex PB terminates a minimum of 6” (152 mm) above finished grade or as required by code.
3. Install copings and sealant immediately after installation of the Parex PB and when Parex coatings are completely dry.

TECHNICAL INFORMATION

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

PART 1 – GENERAL

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

1.01 SECTION INCLUDES

Parex PB Wall System

A. Refer to all drawings and other sections of this specification to determine the type and extent of work therein affecting the work of this section, whether or not such work is specifically mentioned herein.
B. Parex PB Wall System: Composite wall EIFS consisting of adhesive, rigid insulation, base coat, reinforcing mesh, and finish coat.
C. Parex 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 Parex PB Wall 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 Wood 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 29 00 Gypsum board

1.03 DEFINITIONS
A. Exterior Insulation and Finish System: Exterior assembly comprised of rigid insulation, adhesive, base coat, reinforcing mesh, and finish coat.
B. Class PB Systems: A class of EIFS where the base coat varies in thickness depending upon the number of layers or thickness of reinforcing mesh. The reinforcing material is glass fiber mesh, which is embedded into the base coat at the time of installation. The base coat shall be applied to achieve reinforcing mesh embedment with no reinforcing mesh color visible, nominal 1/16" (1.6 mm). Protective finish coats, of various thicknesses, in a variety of textures and colors, are applied over the base coat.

1.04 SUBMITTALS
A. Submit under provisions of Section [01 33 00] [x].
B. Product Data: Provide data on Parex PB materials, product characteristics, performance criteria, limitations and durability.
C. Samples: Submit [two] [x] [millimeter] [inch] size samples of Parex PB illustrating finish coat color and texture range.
D. Certificate: System manufacturer's approval of applicator.
E. Sealant: Sealant manufacturer's certificate of compliance with ASTM C1382.
F. System manufacturer's current specifications, typical details, system overview and related product literature which indicate preparation required, storage, installation techniques, jointing requirements and finishing techniques.

1.05 QUALITY ASSURANCE
A. Manufacturer: More than 10 years in the EIFS industry, with more than 1000 completed EIFS projects.
B. Applicator: Approved by Sika in performing work of this section.
C. Regulatory Requirements: Conform to applicable code requirements for exterior insulation and finish system.
D. Field Samples:
   1. Provide under provisions of Section [01 43 36] [01 43 39].
   2. Construct one field sample panel for each color and texture, [x] [meters] [feet] in size of system materials illustrating method of attachment, surface finish, color and texture.

3. Prepare each sample panel using the same tools and techniques to be used for the actual application.
4. Locate sample panel where directed.
5. Accepted sample panel [may] [may not] remain as part of the work.
6. Field samples shall be comprised of all wall assembly components including substrate, insulation board, base coat, reinforcing mesh, primer (if specified), finish coat, and typical sealant/flashing conditions.

E. Testing:

1. PB and Component Performance:

TEST	METHOD	CRITERIA	RESULTS
Transverse Wind-load	ASTM E330	Steel stud framing (20 gauge) 24"o.c., 7/16" wood sheathing or ASTM C1396 or C1177 gypsum sheathing, Parex 121 Adhesive, 3/4" expanded polystyrene insulation board, Parex 121 Base Coat, Parex 355 Standard Reinforcing Mesh, Parex Finish.	Average ultimate loads[1]: - 3318 Pa (- 69 psf) + 4328 Pa (+ 90 psf)
Transverse Wind-load	ASTM E330	Steel stud framing (18 gauge) 24"o.c., 7/16" wood sheathing or ASTM C1396 or C1177 gypsum sheathing, Parex 121 Adhesive, 3/4" expanded polystyrene insulation board, Parex 121 Base Coat, Parex 355 Standard Reinforcing Mesh, Parex Finish.	Average ultimate loads[1]: - 4328 Pa (- 90 psf) + 4328 Pa (+ 90 psf)
Transverse Wind-load	ASTM E330	Steel stud framing (18 gauge) 16"o.c., ASTM C1396 or C1177 gypsum sheathing, metal lath, Parex 121 Adhesive, 3/4" expanded polystyrene insulation board, Parex 121 Base Coat, Parex 355 Standard Reinforcing Mesh Parex Finish.	Average ultimate loads[1]: - 7790 Pa (- 162 psf) + 7790 Pa (+ 162 psf)
Transverse Wind-load	ASTM E330	Wood stud framing (2x4), 24"o.c., 7/16" wood sheathing or ASTM C1396 or C1177 gypsum sheathing, Parex 121 Adhesive, 3/4" expanded polystyrene insulation board, Parex 121 Base Coat, Parex 355 Standard Reinforcing Mesh, Parex Finish.	Average ultimate loads[1]: - 4328 Pa (- 90 psf) + 4328 Pa (+ 90 psf)
Transverse Wind-load	ASTM E330	Concrete or masonry, designed per applicable code, Parex 121 Adhesive, 1" expanded polystyrene insulation board, Parex 121 Base Coat, Parex 355 Standard Reinforcing Mesh, Parex Finish.	Average ultimate loads[2]: - 8992 Pa (- 187 psf) + is limited to the capacity of the concrete or masonry substrate
Tensile Bond	ASTM C297/E2134	Minimum 103 kPa (15 psi)	Pass
Water Penetration	ASTM E 331	No water penetration after 2 hours @ 300 Pa (6.24 psf)	Pass
Radiant Heat Exposure	NFPA 268	No ignition at 20 minutes	Met test criteria with 13" thick EPS insulation.
Fire Endurance	ASTM E119	Maintain fire resistance of existing rated assembly	1 hour rating with maximum 4" thick EPS insulation
Intermediate Scale Multi-Story Fire Test	NFPA 285 / UBC Standard 26-9	1. Resist flame propagation over the exterior surface 2. Resist vertical spread of flame within combustible core/component of panel from one story to the next 3. Resist vertical spread of flame over the interior surface from one story to the next 4. Resist lateral spread of flame from the compartment of fire origin	Met test criteria with 13" thick EPS insulation.

		to adjacent spaces	
Surface Burning	ASTM E84 / UL 723	Flame spread < 25 Smoke developed < 450	All components of the system meet Class A performance (FS < 25; SD < 450)
Abrasion Resistance	ASTM D968	No cracking or loss of film integrity at 528 qt. (500L) of sand	Finish Coat not worn through after 686 liters of falling sand
Accelerated Weathering	ASTM G 153 (formerly G23)	No deleterious effects after 2000 hours.	Pass
Accelerated Weathering	ASTM G 154 (formerly G53)	No deleterious effects after 2000 hours.	Pass - No deleterious effects after 7500 hours.
Freeze-Thaw	ASTM C67, E2485 Method A	No deleterious effects after 60 cycles	Pass
Mildew Resistance	Mil Std 810B Method 508	No fungus growth after 28 days	Pass
Salt Fog Resistance	ASTM B117	No deleterious effects after 300 hours	Pass
Water Resistance of Coating in 100% R.H.	ASTM D 2247	No deleterious effects after 14 days exposure	Pass

[1] No failure in the Parex materials; failure in framing and/or sheathing connections
[2] No failure in the Parex materials, test was stopped at this pressure

2. Reinforcing Mesh Testing and Impact Resistance

TEST	METHOD	CRITERIA	RESULTS
Alkali Resistance of Reinforcing Mesh	ASTM E 2098	Greater than 120 pli (21 dN/CM) retained tensile strength	Pass (all mesh)
Date County Impact Test	Protocol 201	Large & Small Missile	Passed with various wall assemblies
Parex 355 Standard	ASTM E2486 (formerly EIMA 101.86)	25-49 inch-lbs. (2.8-5.6 j)	Pass
Intermediate 6	ASTM E2486 (formerly EIMA 101.86)	25-49 inch-lbs. (2.8-5.6 j)	Pass
Intermediate 12	ASTM E2486 (formerly EIMA 101.86)	50-89 inch-lbs. (5.7-10.1 j)	Pass
Intermediate 12 & Parex 355 Standard	ASTM E2486 (formerly EIMA 101.86)	90-150 inch-lbs. (10.2-17.0 j)	Pass
Strong 15 & Parex 355 Standard	ASTM E2486 (formerly EIMA 101.86)	150 inch-lbs. (17 j)	Pass
Ultra Hi 20 & Parex 355 Standard	ASTM E2486 (formerly EIMA 101.86)	150 inch-lbs. (17 j)	Pass

1.06 DELIVERY, STORAGE AND HANDLING

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

1.01 PROJECT/SITE CONDITIONS

A. Do not apply Sika material in ambient temperatures below 40°F/4°C (50°F/10°C for GRANITE & STONE Finish). Provide properly vented, supplementary heat during installation and drying period when temperatures less than 40°F/4°C (50°F/10°C for GRANITE & STONE Finish) prevail. Do not apply Sika materials in ambient temperature above 100°F (38°C) or surface temperature above 120°F (49°C).
B. Do not apply materials to frozen surfaces.
C. Maintain ambient temperature at or above 40°F/4°C (50°F/10°C for GRANITE & STONE Finish) during and at least 24 hours after material installation and until dry.
D. Under average conditions [70 °F (21 °C), 50% Relative Humidity] finish will be dry within 24

hours. Drying time depends 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 Parex PB 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 Sika standard warranty for Parex PB Wall System installations under the provisions of Section [01 78 00].
B. Comply with Sika' project review requirements and notification procedures to assure qualification for warranty.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Parex PB (Class PB System) manufactured by Sika Corporation US.

2.02 MATERIALS

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

A. Adhesives/Base Coats: ***(Required, Select One or More)***

1. Parex 121 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. Parex 121 Dry Base Coat: A dry-mix polymer adhesive and base coat containing Portland cement and requiring only water for mixing.
3. Parex WeatherDry Base Coat: A 100% acrylic-based, water-resistant base coat, field-mixed with Type I or Type II Portland cement.
4. .

NOTE TO SPECIFIER: Portland cement is not used with Parex 121 Dry Base Coats.

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

C. Water: Clean and potable without foreign matter.

D. Insulation Board:

1. Expanded polystyrene; ASTM C578, Type I; Flame spread less than 25, smoke developed less than 450 per ASTM E84, UL 723.
   a. Minimum density 15.22 kg/m^3 (0.95 lb./ft^3; K=6.09 per mm (0.24 per inch).
   b. Minimum thickness as indicated on drawings but not less than 19 mm (3/4").
   c. Air-dried (aged) six weeks, or equivalent, prior to installation or per ASTM E2430.
   d. Edges: square within 0.8 mm per meter (1/32" per foot).
   e. Thickness: tolerance of plus or minus 1.6 mm (1/16").
   f. Size: 0.6 m x 1.22 m (2' x 4').
   g. Length and width: tolerance of plus or minus 1.6 mm (1/16").

E. Reinforcing Mesh: balanced, open-weave glass, fiber reinforcing mesh, twisted multi-end strands treated for compatibility with Parex base coats. ***(Required, Select One or More)***

1. Parex 355 Standard: Standard weight, 4 oz.
2. SikaWall Intermediate 6: Standard/medium weight, 6 oz.
3. SikaWall Intermediate 12: Intermediate weight, 12 oz.
4. SikaWall Strong 15: Heavy weight, 15 oz. used only in combination with Parex 355 or SikaWall Intermediate 6.
5. SikaWall Ultra Hi 20: Heavy weight, 20 oz. used only in combination with Parex 355 Standard or Intermediate 6.
6. SikaWall Corner Mesh: Intermediate weight, 9 oz. pre-marked for easy bending, for reinforcing at

exterior corners.

F. SikaWall Color Advance (Optional): A 100% acrylic-based coating. It is designed for spray-, roller- or brush-application over EIFS with minimum change in finish texture or sheen.

G. SikaWall Tinted Primer (Optional): A 100% acrylic-based primer that helps alleviate shadowing and enhances the performance of the Parex Wall Systems. Color to closely match the selected Parex finish coat.

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

1. Parex DPR Finish: 100% acrylic polymer finishes with advanced technology to improve long-term performance and dirt pick-up resistance; air cured, compatible with base coat; Parex finish color [ ] as selected; finish texture:
   a. Swirl Fine: 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. Sand Fine: utilizes uniformly sized aggregates for a uniform, fine texture.
   c. Smooth: can achieve a wide variety of free-formed, textured appearances, including stipple and skip-trowel
   d. Sand Coarse: Provides a uniform, “pebble” appearance.

   Parex Aquasol Finish: Modified acrylic-based finish with water repellent properties, compatible with base coat; Parex finish color [ ] as selected; finish texture:
   a. Swirl Fine: 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. Sand Fine: utilizes uniformly sized aggregates for a uniform, fine texture.
   c. Smooth: can achieve a wide variety of free-formed, textured appearances, including stipple and skip-trowel
   d. Sand Coarse: Provides a uniform, “pebble” appearance.
2. 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 Metallic: Has a pearlescent appearance. It utilizes uniformly sized aggregates for a uniform fine texture.
   b. 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.
3. SikaWall Chroma Finish: 100% acrylic polymer-based finish with integrated high-performance colorants for superior fade resistance, compatible with base coat; Parex finish color [ ] as selected; finish texture:
   a. F1.0: Utilizes uniformly sized aggregates for a uniformly fine texture.
   b. M1.5: Provides a uniform “pebble” appearance.
   c. R1.5: Has a medium “worm-holed” appearance which is achieved by the random aggregate sizes in the finish. The “worm-holed” look can be circular, random, vertical or horizontal.

2.03 ACCESSORIES

A. Fastener System: Type appropriate for application and substrate, as recommended by Parex. The use of both adhesive and mechanical attachment is not required by Parex. (Optional Select One)

1. EPS insulation board fasteners: Wind-Devil 2 Mechanical Fastening System manufactured by Wind-lock Corp.
   a. Temporary Fasteners: Galvanized nails or building staples.
   b. Light gauge steel framing (20 gauge): Type LM fastener and plate system; 16 mm (5/8") minimum penetration into framing.
   c. Heavy gauge steel framing (20 to 12 gauge maximum): Type S fastener and plate system; 16 mm (5/8") minimum penetration into framing.
   d. Masonry: Type ME expansion fastener and plate system; 25 mm (1") minimum penetration into masonry.
   e. Wood Framing: [Type W fastener and plate system; 16 mm (5/8") minimum penetration into framing.] or [Galvanized common nails with Wind-lock ULP-302 plates; 25.4 mm (1") minimum penetration into framing.

PART 3 EXECUTION
3.01 EXAMINATION
A. Site Conditions:
1. Verify project site conditions under provisions of Section [01 00 00] [x].

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; ASTM C1177 type sheathings, including, Weather Defense™ Platinum sheathing, GreenGlass® sheathing, eXP™ sheathing, GlasRoc® sheathing, Securock™ glass-mat sheathing, and DensGlass® exterior sheathing, DensElement (sheathing only); gypsum sheathing (ASTM C79/C1396). Consult Sika Facades' Technical Services Department for all other applications.
   b. Wall sheathings must be securely fastened per applicable building code and the sheathing manufacturer's requirements.
   c. Examine surfaces to receive Parex PB 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).
2. Flashings
   a. All flashings are by others and must be installed in accordance with specific manufacturers' requirements. Where appropriate, end-dams must be provided.
   b. As an option, openings may be flashed with a minimum 9" (229 mm) strip of Secondary Moisture Barrier prior to window/door, HVAC, etc. installation to increase the level of moisture protection. Refer to Parex's Weatherseal Spray and Roll-On published product data sheet and details for further information.
   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: must be installed leak-proof and angled (min 100°) must be installed to allow for proper drainage and water diversion.

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 Parex PB.
B. Protect finished work at the end of each day to prevent water penetration.
C. Substrate preparation: Prepare substrates in accordance with Parex instructions.

3.03 MIXING
General: No additives are permitted unless specified in product mixing instructions. Close containers when not in use. Prepare in a container that is clean and free of foreign substances. Do not use a container which has contained or been cleaned with a petroleum-based product. Clean tools with soap and water immediately after use.
NOTE TO SPECIFIER: Keep only the products in this section which were selected in Section 2.02. Delete those not to be utilized.
A. Adhesive/Base Coat:
1. Parex 121 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. Parex WeatherDry Base Coat: Mix base coat with a clean, rust-free paddle and drill until thoroughly blended, before adding Portland cement. Mix one-part (by weight) Portland cement with one-part base coat. Add Portland cement in small increments, mixing until thoroughly blended after each additional increment. Clean, potable water may be added to adjust workability.
3. Parex 121 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 the 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 Parex 121 Dry Base Coat or water may be added to adjust workability.

B. SIKAWALL COLOR ADVANCE: Mix the factory-prepared material with a clean, rust-free paddle and drill until thoroughly blended. A small amount of clean, potable water may be added to adjust workability. Do not overwater.

C. SIKAWALL TINTED PRIMER: Mix the factory-prepared material with a clean, rust-free paddle and drill until thoroughly blended. A small amount of clean, potable water may be added to adjust workability. Do not overwater.

D. Finishes:

1. Parex DPR, Parex Aquasol, and SikaWall Chroma Finish: Mix the factory-prepared material with a clean, rust-free paddle and drill until thoroughly blended. A small amount of clean, potable water may be added to adjust workability. Do not overwater.
2. SikaWall Granite & Stone Finish: Gently mix the contents of the pail for 1 minute using a low RPM ½" drill equipped with a mixing paddle such as a Demand Twister or a Wind-Lock B-MEW, B-M1 or B-M9.

3.04 APPLICATION

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

A. Adhesive Attachment of Insulation Board:

1. Vertical surfaces: Begin at base from firm, permanent, or temporary support.
2. Apply horizontally in a running bond pattern.
3. Pre-cut insulation board to fit openings and projections. Insulation board must be a single piece around corners of openings. Stagger vertical joints and corners. Stagger insulation and sheathing board joints. **(Select a or b)**
   a. Notched trowel method: Apply mixed Parex base coat to entire surface of insulation board using a stainless-steel trowel with 1/2" x 1/2" (13 mm x 13 mm) notches spaced 1/2" (13 mm) apart, or 3/8" x 3/8" (10 mm x 10 mm) notches spaced 3/8" (10 mm) apart.

   NOTE: Ribbon & dab method is not recommended on gypsum sheathing substrates.

   b. Ribbon and dab method: Apply a Parex base coat approximately 2" (50 mm) wide by 3/8" (10 mm) thick to entire perimeter of each board with a stainless-steel trowel. Apply dabs of 3/8" (10 mm) thickness and 4" (100 mm) in diameter, approximately 8" (200 mm) on center to interior area of board.
4. Immediately set board into place and apply pressure over entire surface of board to ensure positive uniform contact and high initial grab. Do not allow the base coat to dry prior to installing.
5. Abut all joints tightly and ensure overall flush level surface.
6. Check adhesion periodically by removing a board prior to set. Properly installed insulation board will be difficult to remove, and adhesive/base coat will be adhered to both the substrate and the insulation board.
7. Fill gaps greater than 1/16" between insulation boards with slivers of insulation board.
8. Allow application of insulation board to dry (normally 8 to 10 hours) prior to application of base coat/reinforcing mesh.
9. Rasp flush any irregularities of the insulation board greater than 1/16" (1.6 mm).
10. Install expansion joints and other joints as indicated on drawings. Do not align aesthetic grooves with insulation board joints.

B. Mechanical Fastening of Insulation Board:

1. Vertical surfaces: begin at base from firm, permanent, or temporary support.
2. Apply horizontally in a running bond pattern.
3. Pre-cut insulation board to fit openings and projections. Insulation board must be a single piece around corners of openings. Stagger vertical joints and corners. Stagger insulation and sheathing board joints.

   NOTE TO SPECIFIER: Select appropriate fastener for framing and sheathing material)

4. EPS Insulation Board: Wind-Devil 2 Mechanical Fastening System manufactured by Wind-lock Corp.
   a. Temporary Fasteners: Galvanized nails or building staples.
   b. Light Gauge Steel Framing (20 gauge): Type LM fastener and plate system; 16 mm (5/8") minimum penetration into framing.
   c. Heavy gauge steel framing (20 to 12 gauge maximum): Type S fastener and plate system; 16 mm (5/8") minimum penetration into framing.
   d. Masonry: Type ME expansion fastener and plate system; 25 mm (1") minimum penetration into masonry.
   e. Wood Framing: [Type W fastener and plate system; 16 mm (5/8") minimum penetration into framing.] or [Galvanized common nails with Wind-lock ULP-302 plates; 25.4 mm (1") minimum penetration into framing.

C. Parex Base Coat/Reinforcing Mesh:

NOTE TO SPECIFIER: Indicate on drawings the required locations of standard, medium and high or ultra-high impact reinforcing mesh.

1. Base coat shall be applied to achieve reinforcing mesh embedment with no reinforcing mesh color visible.

D. SIKAWALL CORNER MESH:

1. Install at corners, prior to application of reinforcing mesh.
2. Apply mixed Parex 121 base coat to insulation board at outside corners using a stainless-steel trowel. Immediately place mesh against the wet base coat and embed into the base boat by troweling from the corner; butt edges and avoid wrinkles.
3. After the base coat is dry and hard, apply a layer of Parex 355 Standard, Intermediate 6 or 12 reinforcing mesh over the entire surface of the SikaWall Corner Mesh in accordance with 3.04 E.

E. Standard Impact or Medium Impact Resistance Reinforcing Mesh: Parex 355 Standard, Intermediate 6 and Intermediate 12

1. Install specific reinforcing mesh where indicated on drawings.
2. Apply mixed Parex base coat to the entire surface of the insulation board with a stainless-steel trowel to embed the reinforcing mesh.
3. Immediately place Parex 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 ½" (64 mm) minimum at edges.
4. Ensure reinforcing mesh is continuous at corners, void of wrinkles and embedded in base coat so that no reinforcing mesh color is visible.
5. If required, apply a second layer of base coat to achieve total nominal base coat/reinforcing mesh thickness of 1/16" (1.6 mm).
6. Allow base coat with embedded reinforcing mesh to dry hard (normally 8 to 10 hours).

F. High Impact or Ultra High Impact Resistance Reinforcing Mesh: INTERMEDIATE 12, STRONG 15 and ULTRA HI 20

NOTE TO SPECIFIER: Where SikaWall Strong 15 or SikaWall Ultra Hi 20 is specified, Parex 355 Standard or SikaWall Intermediate 6 must be specified also.

1. Install specific Parex reinforcing mesh where indicated on drawings.
2. Apply mixed Parex base coat to the entire surface of insulation board with a stainless-steel trowel to embed the reinforcing mesh.
3. 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.
4. Butt reinforcing mesh at all adjoining edges; do not use to backwrap or bend around corners.
5. Butt reinforcing mesh at adjoining edges of CORNER MESH.
6. Ensure reinforcing mesh is free of wrinkles and embedded in base coat so that no reinforcing mesh color is visible.
7. After base coat with embedded reinforcing mesh is dry and hard (normally 8 to 10 hours), apply a layer of Parex 355 Standard or Intermediate 6 reinforcing mesh over the entire surface in accordance with 3.04 E to achieve total nominal base coat/ reinforcing mesh thickness of 3/32" (2.4 mm).

F. SIKAWALL COLOR ADVANCE:

1. Apply material to the base coat/reinforcing mesh in sealant joints with a high-quality, latex-type

paintbrush. Work material continuously until a uniform appearance is obtained. Allow to dry thoroughly (approximately 24 hours) prior to application of sealant primer and sealant.

G. SIKAWALL TINTED PRIMER:

1. Apply primer to the base coat/reinforcing mesh with a sprayer, ⅜" (10 mm) nap roller, or good quality latex paint brush at a rate of approximately 150-250 ft² per gallon (3.6–6.1m² per liter). Primer shall be dry to the touch before proceeding to the Parex finish coat application.

H. Finish Coat: Parex DPR, Parex Aquasol and SikaWall 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.

I. SikaWall Granite & Stone Finish:

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

3.05 CLEANING

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

3.06 PROTECTION

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

END OF SECTION

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/parex 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/.

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