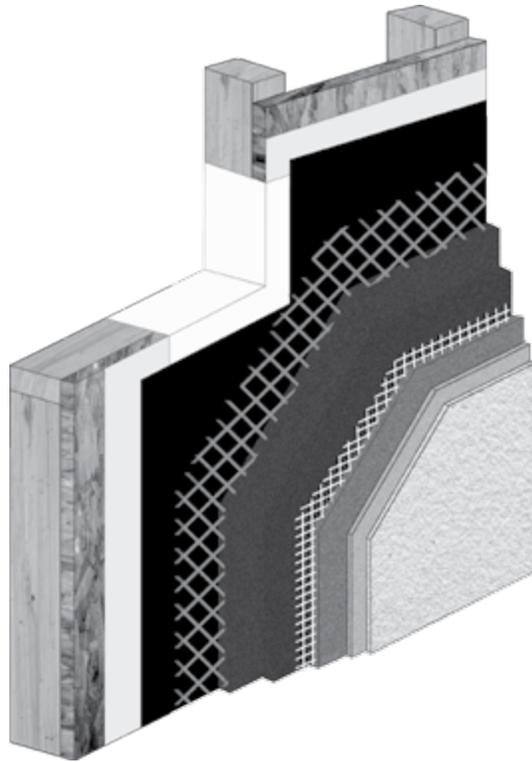


PAREXUSA

Stucco Application Guide



Always use the latest version of the Parex USA Application Guide. This guide focuses on the application techniques for the Parex USA Stucco Assemblies.

JOB PLANNING CHECKLIST

Job: _____ Date: _____

Job Size: _____

- | | |
|---|-------------------------------------|
| <input type="checkbox"/> New Construction | <input type="checkbox"/> Renovation |
| <input type="checkbox"/> Residential | <input type="checkbox"/> Commercial |

This job will require:

- | | | |
|--|---|---|
| <input type="checkbox"/> Removal of plants, shrubs, etc. | <input type="checkbox"/> Heating | <input type="checkbox"/> Sealant |
| <input type="checkbox"/> Protecting Finished Surfaces | <input type="checkbox"/> Installing Lath and Trim Accessories | <input type="checkbox"/> Finish |
| <input type="checkbox"/> Scaffolding | <input type="checkbox"/> Fasteners | <input type="checkbox"/> Expansion/Control joints |
| <input type="checkbox"/> Removal preparation | <input type="checkbox"/> Preformed Shapes | <input type="checkbox"/> Window flashing |
| <input type="checkbox"/> Substrate preparation | <input type="checkbox"/> Basecoat | <input type="checkbox"/> Parapet cap flashing |
| <input type="checkbox"/> Sandblasting | <input type="checkbox"/> Stucco level coat | <input type="checkbox"/> Cleanup |
| <input type="checkbox"/> Cleaning | <input type="checkbox"/> Reinforcing mesh | <input type="checkbox"/> Shipping |
| <input type="checkbox"/> Tenting | <input type="checkbox"/> Primer | |

Notes: _____

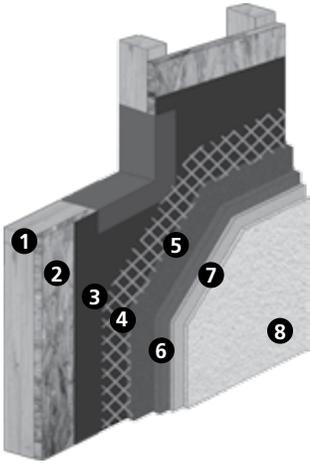
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HOW TO USE THIS GUIDE

This guide focuses on the installation of the Parex USA Stucco Assemblies. We recommend reading all appropriate industry standards and this entire guide before beginning the project. Always use the current brand appropriate details and specifications, see the product data sheets for additional information.

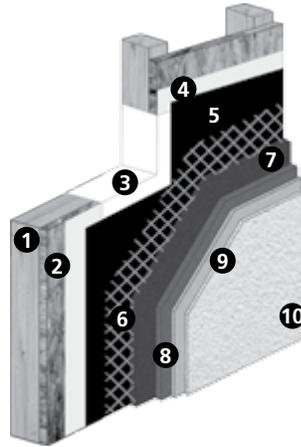
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1. Systems



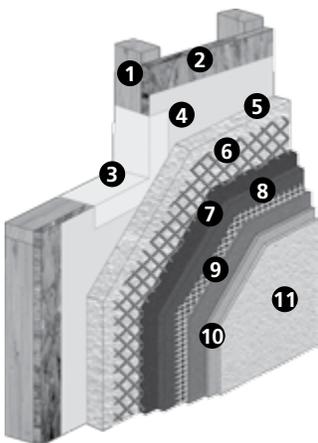
1. FRAME
2. SHEATHING
3. BUILDING PAPER
4. METAL LATH
5. PAREX USA 100 OR 300 SERIES SCRATCH COAT
6. PAREX USA 100 OR 300 SERIES BROWN COAT
7. PRIMER (OPTIONAL)
8. FINISH

PAREX USA STUCCO ASSEMBLY



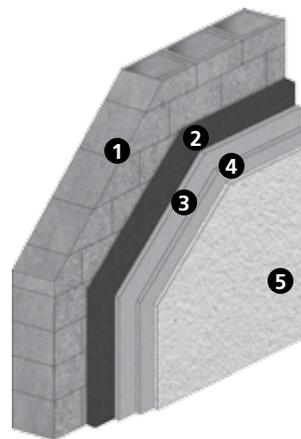
1. FRAME
2. SHEATHING
3. SHEATHING TAPE
4. PAREX USA WEATHERSEAL
5. BUILDING PAPER
6. METAL LATH
7. PAREX USA 100 OR 300 SERIES SCRATCH COAT
8. PAREX USA 100 OR 300 SERIES BROWN COAT
9. PRIMER (OPTIONAL)
10. FINISH

PAREX USA WATERMASTER



1. FRAME
2. SHEATHING
3. SHEATHING TAPE
4. PAREX USA WEATHERSEAL
5. CONTINUOUS INSULATION
6. METAL LATH
7. PAREX USA 100 OR 300 SERIES SCRATCH COAT
8. PAREX USA 100 OR 300 SERIES BROWN COAT
9. PAREX USA MESH (EMBEDDED IN STUCCO LEVEL COAT)
10. PRIMER (OPTIONAL)
11. FINISH

PAREX USA WATERMASTER KRAK-SHIELD HE

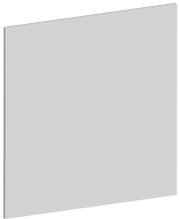


1. CONCRETE OR MASONRY
2. PAREX USA 100 OR 300 SERIES BROWN COAT
3. PAREX USA WEATHERDRY WATERPROOF BASECOAT
4. PRIMER (OPTIONAL)
5. FINISH

PAREX USA WATERMASTER OVER CMU

2. Products

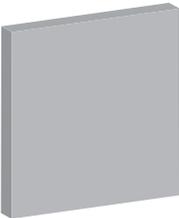
Moisture Protection (For WaterMaster Assemblies)



Parex USA Weatherseal: the industry leading waterproof membrane & air barrier for use as a water resistive barrier behind Parex USA 100 or 300 Series WaterMaster Stucco assemblies and other claddings. Parex USA Weatherseal is easier to apply and makes applications more efficient than other roll-on / trowel-on barriers because one product treats both the field and board joints.

Parex USA WeatherDry: a waterproofing basecoat used on Parex USA WaterMaster assemblies that go over concrete or masonry. The product requires the addition of portland cement and is trowel applied over the stucco brown coat.

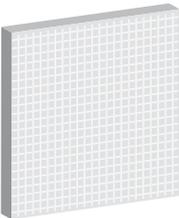
Stucco Base



Parex USA 100 Series Stucco Basecoats: a factory controlled blend of portland cement, fibers, and other additives to which sand (for concentrate) and water are added at the job site. Use for 3/8-5/8 inch thick stucco applications. Consult applicable evaluation service reports for assemblies and limitations of use.

Parex USA 300 Series Scratch & Brown Stucco Basecoats: Factory prepared stucco that conforms to ASTM C926 when water and sand are added at the jobsite. Use this when you need a product that conforms to ASTM C926 for use in 3/4 inch thick frame wall assemblies. 300 Series are also available factory sanded.

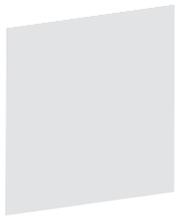
Stucco Level Coat & Mesh (For Krak-Shield Assemblies)



Stucco Level Coat: used to smooth a wall's surface in preparation for primer or finish and to embed mesh for Parex USA Krak-Shield stucco assemblies.

Mesh: Parex USA 4.5 or 12 oz fiberglass mesh: used in Parex USA Krak-Shield assemblies to limit cracking.

Primers, Bonding Agent and Admix



Primer: a tintable acrylic primer that can be applied by roller or sprayer. Use primer to act as a sealer for your stucco assembly and to improve the handling and coverage of acrylic and elastomeric finishes.

Parex USA Adacryl Admix & Bonding Agent: A 100% acrylic emulsion additive for portland cement based products.

Finishes



Parex USA offers a number of finish options for your Armourwall stucco assembly.

- **DPR Finish Standard:** Integrally colored acrylic finish available in 6 different textures
- **DPR Optimum Finish (Parex Brand):** Integrally colored premium acrylic finish available in 4 textures. Optimum Finish is our high end acrylic that offers easier application and improved durability.
- **e-Lastic Elastomeric Finish:** Integrally colored elastomeric finish available in 4 different textures. Elastomerics offer the ability to bridge existing hairline cracks to improve the aesthetics of your wall

***Cement Finish:** Integrally colored cement finish available in 16/20 and 20/30 aggregates and Santa Barbara Mission Finish.

3. General Installation Requirements

These requirements are essential to good practice. Failure to follow these requirements could lead to problems with the stucco assembly installation or ultimately, to its failure. Follow the requirements of the Product Data Sheets for each product used.

Application Coordination Requirements

- Coordinate the stucco assembly installation with other trades on the project. Many areas of air and water-resistant barrier coatings must be installed prior to other construction components such as windows, louvers, doors, roof intersections, deck headers. Many flashings must be installed prior to stucco.
- Make sure critical details needed prior to application are acceptable and in place.
- Employ sufficient manpower, to ensure a continuous coating application free of cold joints scaffold stag-ing shadows and texture variations.
- Have scaffolding and other necessary equipment in place prior to the installation.
- Have access to electricity for power tools.
- Have access to cool, potable water at the area where assembly materials will be mixed.
- Sealant is not a part of the stucco assembly. Determine who will be responsible for installing the sealant.
- Determine who will be responsible for temporary protection if installation of flashings over the stucco is delayed.

4. BEFORE BEGINNING THE INSTALLATION

If there are any discrepancies with your initial inspection of the substrate, do not proceed with the application until all unsatisfactory conditions are corrected. The general contractor should be advised of all discrepancies so that appropriate action can be taken. Failure to advise the general contractor of unsatisfactory conditions before the application begins might be construed as acceptance, by the applicator of the substrate for the purpose of installing the assembly.

At this time, it may also be appropriate to once again review the contract documents to ensure that the installation will be consistent with what has been detailed and specified. It is certainly easier for all parties concerned if problems are addressed up front rather than when they occur in the installation process.

Critical Details

In most cases, the installation of the assembly begins at a level base line at the bottom of the wall. However, in evaluating the installation, particular attention must be focused on all locations within the installation where the assembly will be interrupted or terminated. Based upon what has been detailed and specified, consideration must be given to these critical locations:

- Tops of walls
- Bottoms of walls
- Cladding transitions
- Penetrations such as scuppers, fixtures, outlets, and signage
- Deck connections
- Aesthetic features
- Expansion joints
- Abutments to dissimilar materials
- Gable roof/wall intersection/kick-out flashing (flashing turn-outs)
- Chimney flashing

Section A: Job Conditions

5. ENVIRONMENTAL CONDITIONS

Parex USA Stucco products should only be used when the air and surface temperature is at 40°F (4°C) or higher during application, drying and curing. For installation in temperatures less than 40°F (4°C), temporary shelter and supplemental heat must be provided and maintained for at least 48 hours after installation.

Do not apply Parex USA products to substrates which are frozen or contain frost or ice.

Avoid application of products in direct sunlight or air surface temperatures exceeding 120°F (48°C). Under these conditions, provide a sun screen or work in cooler parts of the day such as early morning or late evening. Application of Acrylic and Cement Based Stucco Finishes in direct sunlight in hot weather may adversely affect aesthetics.

Note: Because Parex USA Stucco Basecoats, Finishes and Coatings are portland cement and acrylic based materials, that contain water, it is essential that the above requirements be followed. Humidity, wind, cold, heat, rain, and snow etc., can affect workability and drying of the materials. As conditions warrant, tenting and/or tarping might be necessary to maintain these requirements.

6. MATERIAL STORAGE

Deliver and store products in original packaging with manufacturer's identification.

WeatherSeal, WeatherDry, Adacryl, Acrylic and Elastomeric Finishes, Primers and Coatings, etc. (Pail Products)

Must be kept from freezing and from temperatures in excess of 100°F (38°C) for prolonged periods.

Stucco Basecoats, EIFS Basecoat & Adhesives and Stucco Level Coat, Fog Coat, etc. (Bag Products)

Must be stored in a dry location, off the ground, out of direct sunlight and protected from moisture.

Reinforcing Mesh

Store reinforcing mesh in the shipping box in order to keep it clean, dry and protected.

Insulation Boards

Store insulation boards in plastic bags and under cover away from sunlight, open flames, and heaters and be sure that they are kept clean.

Lath and Accessories

Lath and accessories must be stored under cover and off of the ground.

7. PROTECTION

All surrounding areas and surfaces must be protected to prevent against damage and spills during application of the products.

Protect the Parex USA materials from temperatures below 40°F (4°C), in accordance with their product datasheets and from direct rain, running water or other detrimental weather conditions during application and for a minimum of 48 hours after application.

8. PREPARATION

Water Resistive Barrier

The water-resistive barrier is placed over all substrates. They may not be required on concrete or unpainted masonry. Painted (coated)cmU should use a bond breaker such as a weather resistive barrier as required by the local building code and lath if the paint or coating cannot be removed.

Flashing: Ensure that metal flashing has been installed per Design Professional's Specification and Industry Standards.

Substrate Requirements Materials

- Gypsum Sheathing: Minimum ½ in (13mm) thick, weather-resistant, exterior gypsum sheathing complying with ASTM C79, C1177, or C1396.
- Cement Board Sheathing, Minimum ½ in thick, conforming to ASTM C1325.
- Fiberboard: Minimum ½ in (13mm) thick fiberboard complying with ASTM C208 as regular density sheathing recommended for this purpose.
- Plywood: Minimum 3/8 in (9.5mm) thick exterior grade or Exposure I plywood for studs spaced 16 in (406mm) o.c. and 3/8 in (9mm) thick exterior type plywood minimum for studs spaced 24 in (610mm) o.c. Plywood shall comply be exterior grade or Exposure 1 and comply with DOC PS-1.
- Oriented Strand Board (OSB): 7/16 - ½ in Wall-16 or Wall-24, approved by the APA, TECO, or PSI/PTL. Stamped as Exposure 1 or Exterior Sheathing with a PS2 or PRP-108 rating.
- Concrete Masonry Construction: Painted (coated) and non-painted (uncoated). Shall be in conformance with the building code.
- Other Building Code Approved Sheathing or as approved by Parex USA in writing prior to the project.

Examination

- Examine prior to the application of a Parex USA Stucco Base, installation as follows:
 - a. Substrate shall be of a type approved by Parex USA. Plywood and OSB substrates shall be gapped 1/8 in (3.2mm) at all edges.
 - b. Wood-based sheathing requires fastening in accordance with the building code, or project specification if it exceeds the code.
 - c. Gypsum and glass mat gypsum sheathing requires fastening spaced not more than 8 in. (203mm) on center, or closer if required by the project specifications, along framing members.
 - d. Framing member spacing shall not exceed 24 inches (610mm) on center.
 - e. Substrate shall be examined for soundness, and other harmful conditions.
 - f. Substrate shall be free of dust, dirt, laitance, efflorescence, and other harmful contaminants.
 - g. Sheathing should be protected from the elements, be sure that sheathing is dry and installed properly.
 - h. Concrete (Cast-in-Place): for directly bonded stucco, provide a surface that is slightly scarified, water absorbent, free of form releases, straight and true to line and plane. Remove form ties and trim projecting concrete so it is even with the plane of the wall.
 - i. Concrete Masonry Units: For directly bonded stucco, remove surface contaminants such as efflorescence, existing paint or any other bond inhibiting material by sandblasting, waterblasting, wire brushing, chipping or other appropriate means. Dampen the surface with water as necessary just prior to placement of stucco, or apply Adacryl Bonding Agent. Remove projecting joint mortar so it is even with the plane of the wall.

Verify that the substrate

- Is sound, showing no signs of deterioration.
- Is applied correctly and oriented to the framing.
- Has no gaps or voids greater than allowed.
- Has no projections, surface deviation, or planar irregularities greater than 1/4 in. (6mm) in a 10 ft (3m) radius.
- Is dry, clean of foreign materials such as oil, dust, dirt, form release agents, water, frost, and any contaminants that may inhibit bond.
- Obtain from the general contractor his statement that the substrate construction in accordance with substrate material manufacturer's specifications and applicable building codes.

Advise general contractor or designer of any discrepancies preventing proper installation of the Stucco Assembly. Do not proceed with the Stucco Assembly work until unsatisfactory conditions are corrected.

Section B: Installation

9. INSTALLATION

- Prior to installing the lath, the building's dead load including drywall and roofing should be in place.
- Interior wallboard should be fastened in place at all exterior walls prior to plaster applications.
- Check all surfaces to receive the assembly for fastening, tolerance, damaged areas and presence of proper flashing like kick-out flashing (water diverters) and chimney crickets prior to the installation of the cladding and possible sealants.
- The selection of all plastering accessories should be determined by a designer and local building code requirements. Installation should comply with ASTM C1063. Some typical items to consider regarding lath accessories, water resistive barriers, and lath installation are included here.
- A foundation weep or sill screed is the typical accessory required by code and found in ASTM C1063. This accessory shall have a sloped, solid, or perforated, ground or screed flange to facilitate the removal of moisture from the wall cavity and vertical attachment flange not less than 3 1/2 in. (88.9mm) long. The bottom edge of the foundation weep screed is placed not less than 1 in. (25mm) below the joint formed by the foundation and framing. The water resistive barrier and lath shall entirely cover the vertical attachment flange and terminate at the top edge of the nose or ground flange.
- Raw earth, grade shall be not less than 4 in. (102mm) below the nose of the weep screed, paved surfaces shall be not less than 2 in. (51mm) below the nose of the weep screed. (Fig. 8.1).
- Roof lines shall be not less than 2 in. (51mm) below the stucco termination. (Fig.8.2).

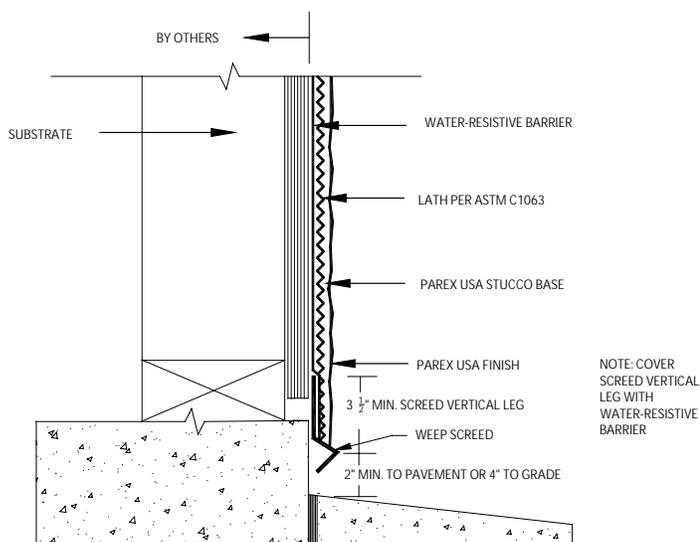


Fig 8.1

10. FLASHINGS AND WATER RESISTIVE BARRIERS

Section 1405 of the International Building Code requires flashing installed in such a manner so as to prevent moisture from entering the wall or to redirect it to the exterior.

All penetrations and openings must be properly flashed, including all openings such as windows, doors and venting.

Windows and door frames should be placed after the rough openings have been properly flashed. Refer to Flashing Rough Openings Details on pages 11 and 12 (Fig. 10.1-10.7)

Flashing

- Provisions to allow for proper water drainage.
- Water Resistive Barriers incorporated with the flashing to create positive drainage.
- Identify all locations to receive the particular type of weep accessory, including head flashings and appropriate flashing at roof lines.

Installation and location of flashings are very important. Particularly at windows, doors, wall penetrations, where the wall assembly and roof or other assemblies meet, etc.

If not located at the ridgeline, chimneys are to have a cricket. A kick-out flashing (water diverter) is required where the roof terminates against the assembly. Make sure all necessary flashings are in place. If these items are not present, notify the builder or general contractor in writing. Do not proceed with the Stucco Assembly work until unsatisfactory conditions are corrected.

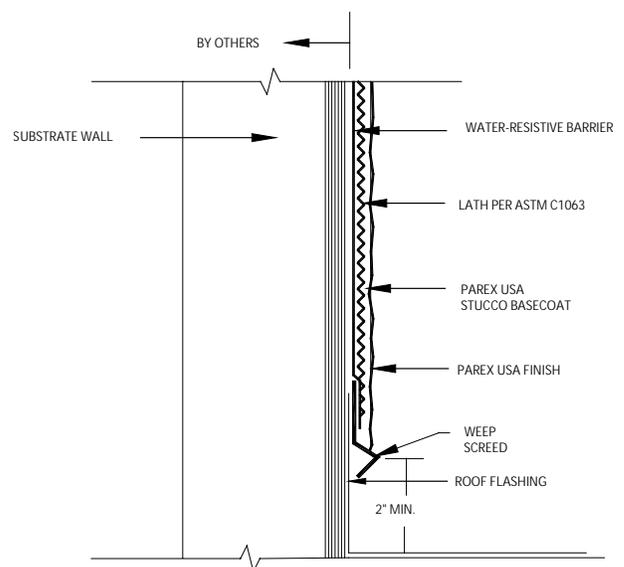


Fig 8.2

11. STARTING THE INSTALLATION - WATERMASTER ASSEMBLIES (Not directly applied to concrete or masonry)

Water Resistant Barrier

- WeatherSeal Spray & Roll-On is easily applied with a roller, brush or suitable spray equipment. Sheathing joints, sills, jambs and all terminations are treated with Roll-on Weather Barrier and Sheathing Joint Tape.
- This application is only over substrates listed in the Parex USA Technical Bulletin "Acceptable Substrates and Areas of Use". Note: Wood sheathings (OSB and plywood) require 2 coats of WeatherSeal Spray & Roll-On or Trowel-On.
- WeatherSeal Trowel-On is easily applied with a Trowel. Sheathing joints, sills, jambs and all terminations are treated with Trowel-On Weather Barrier and Sheathing Joint Tape or 4.0 oz. reinforcing mesh.
- WeatherSeal is covered with either:
 - a. A water vapor permeable code approved building paper.
 - b. Continuous Insulation Board with Drainage Channels.
 - c. Dupont Tyvek Stuccowrap, DrainWrap, CommericalWrap D, or other water resistant barrier incorporating in itself a means of drainage and maintaining a current ICC Evaluation Report covered by Flat Insulation board.

Concrete and Masonry substrates may either incorporate a water resistant barrier and lath or Parex USA WeatherDry Waterproof Basecoat may be applied over the Stucco Basecoat.

Preliminary Steps

Inspect the sheathing: Inspect the sheathing application for correct fastener spacing and overdriven fasteners into the sheathing. Check for sheathing and framing flatness, broken or weathered sheathing to be replaced, gaps in sheathing greater than 1/4 in. (6mm), and wood sheathing panels gapped less than 1/8 in. Notify the general contractor of unsatisfactory sheathing conditions. Do not proceed until they have been corrected.

Windows, doors, louvers, etc. **MUST NOT BE INSTALLED** at this point.

Rough Opening Treatment

- Cut Sheathing Joint tape in a length to wrap all the way into the rough opening and onto the sheathing face a minimum of 2 inches. Cut and embed as shown in (Fig 10.1)
- Cut "bandages" to 4 in. (102mm) x 6 in. (152mm). Embed Parex USA 396 Sheathing Tape into Parex USA WeatherSeal and install diagonally at sill corners as shown. Sheathing should not be visible at the corners of the rough opening (Fig 10.2)
- Cut a piece of Parex USA 396 Sheathing Tape 8 in. (203mm) longer than the rough opening. Embed Sheathing Tape into Parex USA WeatherSeal and install on the sill and up the jambs with at least 2 in. (51mm) protruding to the outside of the opening. Make a cut at each corner to form three "flaps" (Fig 10.3).

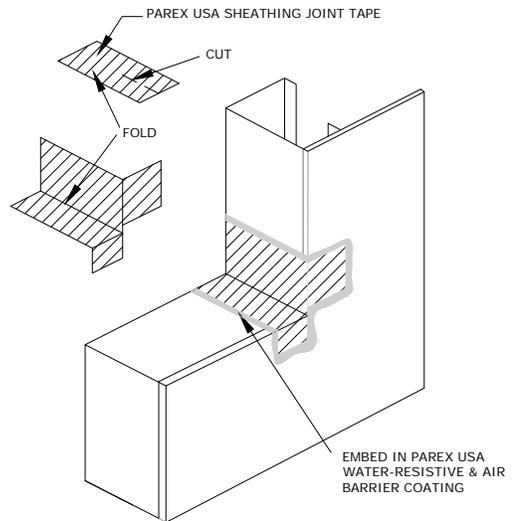


Fig. 10.1

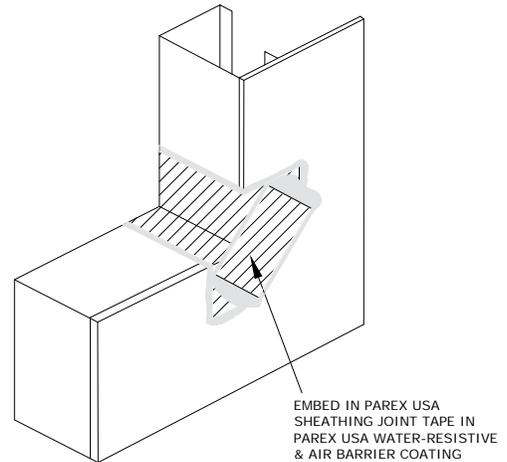


Fig. 10.2

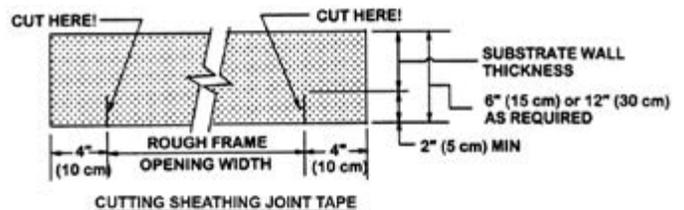


Fig. 10.3

- Fold the bottom flap down over the sheathing. Fold the end flaps against the sheathing (Fig 10.4).
- Repeat the third step for the jambs by coating the jambs with Weatherseal and installing a piece of Sheathing joint tape to the jamb and wrapped at least 2 in. (51mm) onto the sheathing such that it laps the sill piece and continues up past the head opening at least 4 in. (102mm) (Fig 10.4).

Weatherproof the Sheathing Joints and Corners

Apply WeatherSeal in minimum 5 in. (127mm) wide bands centered over sheathing joints and immediately center and embed Parex USA 396 Sheathing Tape into the wet WeatherSeal. A 4 or 6 in. (10 or 15mm) wide drywall knife works very well to adhere the 396 Sheathing Joint Tape to the wet WeatherSeal. All inside and outside corners shall be sealed in the same manner. (Fig 10.5).

Parex USA Flashing Membrane may also be used for protection of the rough openings. Primer may be required on certain substrates.

More complete details for installing Parex USA Weatherseal can be found at parex.com, teifs.com, elrey.com and lahabrastucco.com.

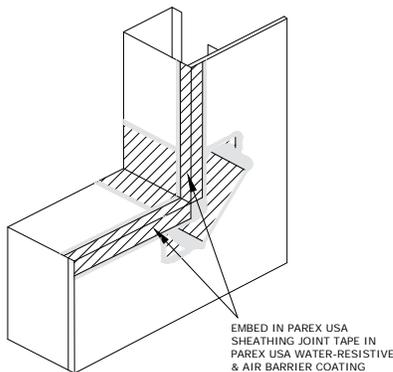


Fig. 10.4

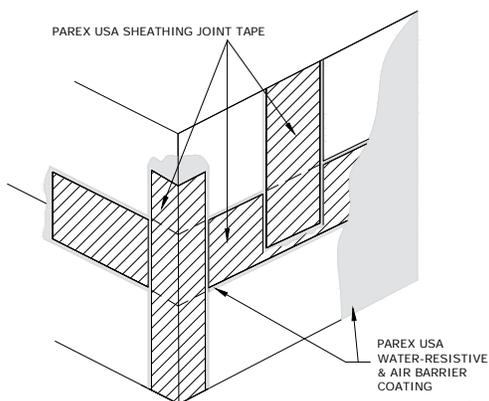


Fig. 10.5

Wall Sheathing Surfaces

Apply WeatherSeal Spray & Roll-On over the entire substrate at a rate of not more than 100 ft²/gal (24 m²/L), approximately 10–12 wet mils thick.

Spray applications require back rolling using a 1-1/4 in. (32mm) or 1-3/8 in. (35mm) nap roller designed for applying latex paints. The transparency of the WeatherSeal Spray & Roll-On is not an indication of the thickness. Wood, concrete and masonry substrates require two coats of WeatherSeal Spray & Roll-On.

-OR-

Apply WeatherSeal Trowel-On over the entire substrate at a rate of not more than:

Without Gauging Aggregate

140-160 ft² (13-14.8 m²) per pail @1/16 in. (63 wet mils)

With Gauging Aggregate

150-190 ft² (14-17.6 m²) per pail (35 wet mils or approx. thickness of the largest aggregate):

WeatherSeal Trowel-On is applied by trowel to the thickness of the aggregate. Thicker applications than required, reduces coverage and extends setting and drying time.

The transparency of the WeatherSeal is not an indication of the thickness. Wood, concrete and masonry substrates may require two coats of WeatherSeal Trowel-On. Allow to dry a minimum of 24 hours and longer if required to dry completely through its entire thickness.

WeatherSeal is covered by a water vapor permeable intervening material such as code approved building paper or continuous Insulation Board with Drainage Channels.

If the 100 Series HE Assembly is used, there must be Drainage behind the Insulation Board. See Section 12

Window and Door installation

The windows, doors, etc. can be installed at this time.

12. STARTING THE INSTALLATION: STANDARD-NON WATER MASTER ASSEMBLY Pan Flashing Installation

Be especially careful that all vertical flashings drain within the pan and are sealed where they join the sill flashing. Pan flashing is to be installed before the window is installed, and must be the full width of the opening with back and end dams. The outboard lip of the pan must drain over the water-resistant barrier or extend to the outside of the total assembly thickness, and down over the assembly a minimum of 2 in. (51mm).

- Cut and staple a 12" (30cm) wide strip of Tyvek® StuccoWrap™ or code-approved water resistant barrier in line with bottom edge of the rough opening extending past jambs approximately 12" (30cm) on each side. Staple top edge only (Fig. 11.1).
- Cut self-adhering flashing membrane to approximately 4 in. (10cm) x 6 in. (15cm). Remove backer paper and install diagonally at sill corners (Fig. 11.1).
- Cut a strip of self-adhering flashing to a width of 12 in. (30cm) and a length equal to that of the rough opening width plus 8 in. (20cm). Make two 2 in. (5cm) long cuts into flashing even with jambs (Fig. 11.2).
- Fold self-adhering flashing to fit rough opening sill (Fig. 11.3).
- Peel backing and install flashing as shown, making sure to lap over previously installed diagonal flashing and StuccoWrap or code-approved water resistant barrier (Fig. 11.4).
- Fit flashing into rough opening jambs. Install jamb flashing making sure bottom leg overlaps sill flashing. (Fig. 11.6).

For the most current version of Tyvek StuccoWrap installation instructions, visit www.dupont.com/Weatherization

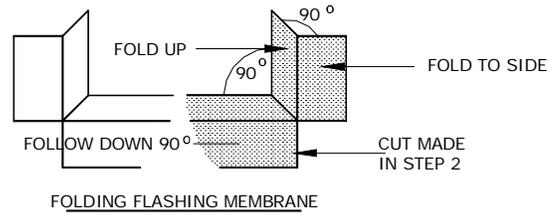


Fig 11.3

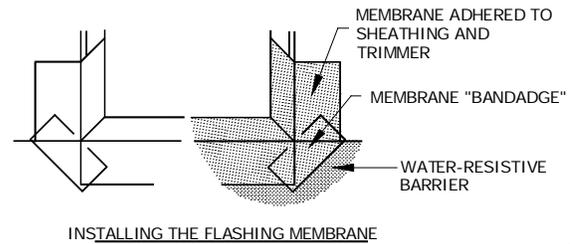
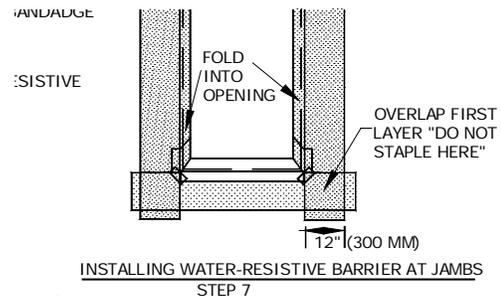


Fig 11.4



10 MM)MIN.
FOLD WATER-RESISTIVE BARRIER INTO ROUGH OPENING. BOTTOM LEG MUST OVERLAP FIRST LAYER AS SHOWN. DO NOT STAPLE IMMEDIATELY BELOW THE SILL JAMB CORNERS.

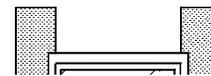


Fig 11.5

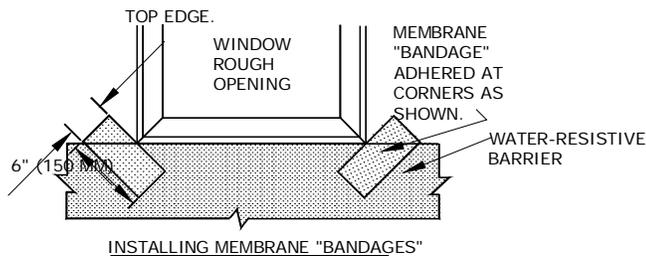


Fig 11.1

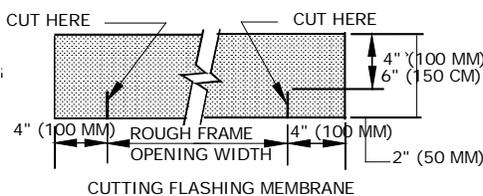


Fig 11.2

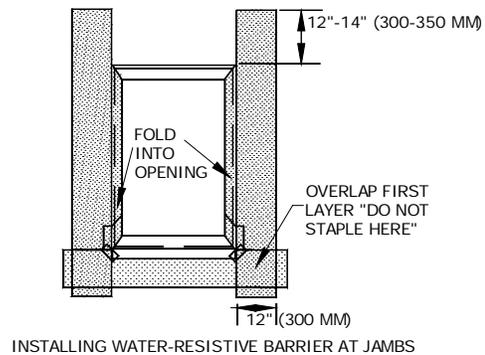


Fig 11.6

Window and Door installation

The windows, doors, etc. can be installed at this time (Fig. 11.7). following the applicable Building Code and door or window manufacturer's directions.

Head Flashing Installation

Install corrosion resistant metal head flashing. Length of flashing should be 1 in. (25mm) longer than the width of window or door frame. Rear vertical leg of flashing should be a minimum of 4 in. (101mm) high (Fig. 11.8 and Fig. 11.9).

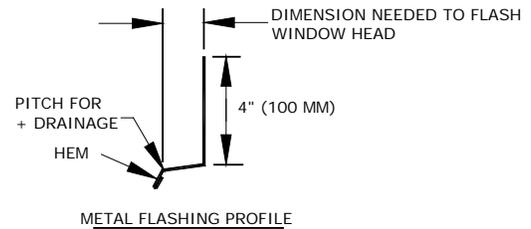


Fig 11.8

Wall Sheathing Surfaces

Water Resistant Barriers

■ Water-Resistive Barrier for non-wood based sheathing shall be either:

- 1 layer asphalt-saturated felt complying with ASTM D 226 Type I.
- Lath with appropriate paper backing.
- Other code recognized and approved equivalent.

■ Water-Resistive Barrier for wood based sheathing shall be either:

- 2 layers of Grade D building paper, or 1 layer of the Grade D building paper plus paper backed lath.
- Other code approved and recognized equivalent.

■ Install the water resistive barrier over the entire sheathing surface, shingle fashion, starting at the bottom of each wall section. Overlap each layer a minimum of 2 in. (51mm) horizontally and 6 in. (152mm) at vertical laps. The water resistive barrier must be continuous behind control and expansion joints and be wrapped around interior and exterior corners.

■ Make sure the water resistive barrier is installed under the rough opening sill flashing as per Fig. 11.9. Lap barrier over jamb flashings and over the entire vertical back flange of the head flashing. (Fig. 11.10)

■ Seal all water resistive barrier joints where they intersect with horizontal or vertical surfaces and at abutments, eaves, doors or window frames. Use a self adhering flashing membrane.

If using a proprietary water resistive barrier, follow the manufacturer's installation instructions.

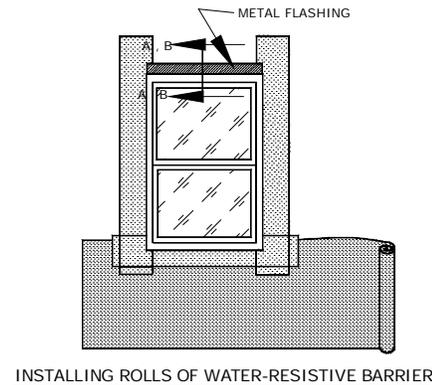


Fig 11.9

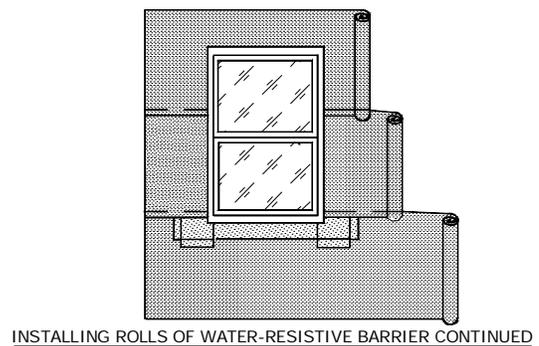


Fig 11.10

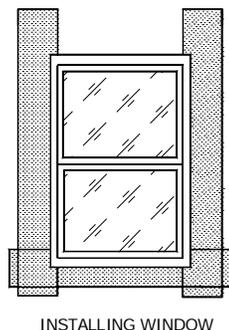


Fig 11.7

13. HE (High Efficiency-Continuous Insulation)

If your project includes a High Efficiency assembly, continuous insulation is required.

- All insulation boards must be recognized in a current ICC-ES evaluation report.
- The insulation boards are placed horizontally, with tongues faced upward (if applicable), and are temporarily held in place. Where insulation boards are applied over open framing, vertical butt joints must be staggered a minimum of one stud space from adjacent courses, and must occur directly over studs.
- CAUTION: APPLICATION TO PEN FRAMING IS PERMITTED ON WOOD FRAMING ONLY, MAXIMUM STUD SPACING 16" O.C.
- The lath is installed over the insulation board and fastened through the insulation board to the studs. Care must be taken to avoid overdriving fasteners.

HE Assemblies over Solid Sheathing

- The water-resistive barrier shall be per Section 11 depending on sheathing type.
- Insulation board
 - a. Expanded (EPS), or Extruded (XPS) shall be a square-edge foam plastic board with a minimum thickness of ½-inch (25.4mm), maximum thickness of 2 in. (50.8mm) thickness and a minimum nominal density of 1 pcf (16kg/m³).
 - b. Polyisocyanurate Foam plastic complying with ASTM C1289 as Type II board with a nominal density of 2 pcf (32kg/m³), thickness ½ in to 2 inches.
- 100 Series Assemblies require a means of drainage between the water resistive barrier and the insulation board such as:
 - a. Insulation boards with minimum ¼-inch-wide-by-1/8-inch-deep (6.4mm by 3.2mm) vertical grooves spaced a maximum of 12 inches (305mm) on the back face of the board.
 - b. Installation of flat-faced board over a Tyvek StuccoWrap water-resistive barrier recognized in ESR-2375, or a three-dimensional drainage mat recognized in ESR-1935.

HE Assemblies with WaterMaster

After the Weatherseal is installed per Section 10, a means of drainage must be used as listed above for 100 Series assemblies and is optional for 300 Series assemblies.

HE Assemblies over Open Framing

- Water Resistive Barrier
 - a. 1 layer Grade D building paper.
 - b. 1 layer asphalt-saturated felt complying with ASTM D 226 Type I.
 - c. Other building code recognized equivalent.
- Insulation board
 - a. Expanded (EPS), or Extruded (XPS) having 3/8-inch high (9.5mm) tongues with compatible grooves for horizontal joints, a minimum density of 1.5 lb/ft³ (21kg/m³), minimum thickness of 1 in. (25.4mm) and maximum thickness of 2 in. (50.8mm).

14. LATH, TRIM-ACCESSORIES

Conform to ASTM C847, ASTM C933, ASTM C1032, ASTM C1063 and Appendix.

Accessories: Manufacturer's standard steel products with minimum G60 galvanizing unless otherwise indicated as rigid polyvinyl chloride (PVC plastic), zinc alloy or stainless steel.
Weep Screeds: Foundation weep screed with minimum 3-½ inch vertical attachment flange.

Install Trim Accessories per ASTM C1063. Install all trim accessories in such a manner that flanges and fasteners that provide for attachment are completely embedded in the plaster.

300 Series Assemblies

All trim accessories shall have a plaster ground of a minimum of 3/4-7/8 in. (19-22.2mm).

All trim accessories shall have a plaster ground of a minimum of 3/8 in. (9.5mm) over concrete and masonry.

For Additional information, refer to ASTM C926, Table 4.

Thicker plaster grounds may be specified and/or required by the designer or for fire-resistive assemblies.

100 Series Assemblies

All trim accessories shall have a plaster ground of a minimum of 3/8-1/2 in. (9.5-13mm).

Thicker plaster grounds may be specified and/or required by the designer or for fire-resistive assemblies.

All trim accessories should be sealed where they join. Attach trim accessories to the substrate in such a manner, as to ensure proper alignment during application of stucco. Maintaining consistent stucco thickness helps prevent cracking.

Plaster stops or casing beads should be installed to create a minimum 1/2 in. (13mm) gap at all abutments to allow for proper installation of backer rod and sealant. (Fig. 13.1).

Casing beads isolate non-load-bearing members from load bearing members and all penetrating elements to avoid transfer of structural loads and to separate from dissimilar materials.

Control joints shall be installed to minimize stress due to stucco curing and drying shrinkage and minor movement, along predetermined, usually straight lines and as a screed to aid in stucco thickness control. Control joints must be continuous through decorative bands or other embellishments, so they will not restrict panel movement.

Control joints placed to create wall panels shall be no larger than 144 ft² (13.4m²) or more than 100 ft² (9.30m²) for all horizontal applications (ceilings, curves, or angle type structures).

The distance between control joints shall not exceed 18 ft (5.5m) in either direction or a length-to-width ratio of 2-1/2 to 1. A control joint shall be installed where the ceiling framing or furring changes direction. (Fig.13.2).

Expansion joints

Expansion joints shall be used to accommodate some degree of movement in the stucco membrane caused by movement of the building or its components to minimize damage to the stucco and weather resistive barrier. Expansion joints are installed at existing through wall expansion joints, changes in substrates, at inside corners, and at floor lines on wood frame construction. (Fig 13.3)

Corner Reinforcement

After the lathing has been completed, Corner aids are installed over all external corners to reinforce them and establish grounds. Expanded lath, welded wire, or woven wire mesh bent to approximately 90° used to reinforce portland cement stucco at external corners. This accessory shall be fully embedded in the stucco.

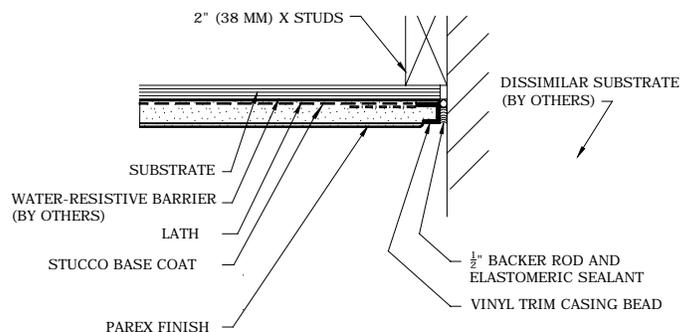


Fig 13.1

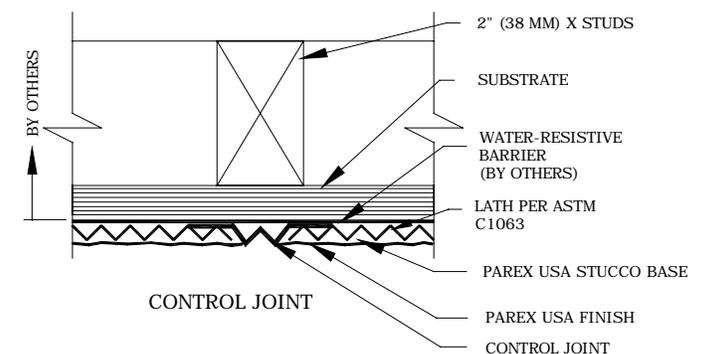


Fig 13.2

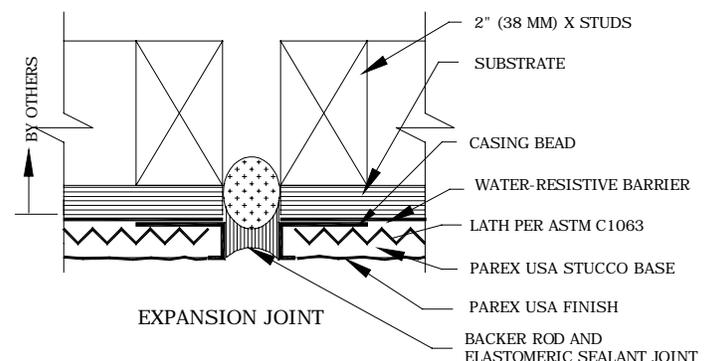


Fig 13.3

15. LATHING OVER FRAMED CONSTRUCTION

Install according to ASTM C1063 and Appendix and the Building Code. Lath that is not firmly or properly attached or lapped can cause cracking in the stucco.

Wire Fabric Lath and Expanded Metal Lath

When using metal plaster base with backing, the vertical and horizontal lap joints will be paper-on-paper and metal-on-metal. Lap backing on walls shingle-wise so water will flow to the exterior.

Metal Plaster Bases (in accordance with applicable codes and standards):

- Minimum 17 gauge woven wire stucco netting.
- Welded wire lath.
- Nominal 2.5 lb/yd² (1.4kg/m²) or 3.4 lb/yd² (1.8kg/m²) expanded metal diamond lath.

Install as per ASTM C1063:

- Mechanically attach lath with the long dimension at right angles to the support members, with corrosion resistant or fasteners.
- Stagger ends of adjacent lath.
- Wrap the lath around corners and attach to framing, staggering vertical joints.
- Lath installations over solid backing for 300 assemblies are to be furred 1/4".

Fasteners and Spacing

- Fastener spacing a maximum 7 in. (178mm) o.c. along vertical wall supports or 6 in (152mm) under the International Residential Code.
- Fastener spacing a maximum 4 in. (101.6mm) o.c. along horizontal ceiling supports.
- Fasteners must penetrate wood wall studs a minimum 1 in. (25mm)
- Fasteners must penetrate Metal studs minimum 1/2 in. (13mm)
- Use 1 in. (25mm) galvanized washer or approved plastic washer or plate with the nails or screws. The use of 16-gauge corrosion-resistant or non-corrosive staples are permitted 6 in. (152mm) oc. with a minimum of 1 in. (25mm) penetration in wood studs. Staples must have a minimum crown width of 3/4 in. (19mm).
- Expanded 3/8 in. (9.5mm) rib lath shall be attached to horizontal and vertical wood framing members with nails or staples to provide not less than 1-3/4 in. (44.5mm) penetration into horizontal wood framing members, and 3/4 in. (19.1mm) penetration into vertical wood framing members.
- Screws used to attach metal plaster base to horizontal and vertical wood framing members shall penetrate not less than 5/8 in. (15.9mm) into the member when the lath is installed and shall engage not less than three strands of lath. When installing rib lath, the screw shall pass through, but not deform, the rib.
- Screws for attaching metal plaster base shall be fabricated in accordance with either Specification ASTM C954 or ASTM C1002 and shall have a minimum 7/16 in. (11.1mm) diameter pan wafer head and a minimum 0.120 in. (3.0mm) diameter shank. Screws used for attachment to metal framing members shall be self-drilling and self-tapping. Screws used for attachment to wood framing members shall be sharp-point.

Exceptions to ASTM C1063 for 100 Series Stucco Assemblies

- Follow the "HE Assemblies" over Open Framing (Page 14). Otherwise, solid backing is required for one coat stucco.
- Fastener maximum spacing is 6 in (152mm) along framing members.
- A minimum 1" x 20 ga. woven wire lath can be used with one coat stucco up to 1/2" thick.
- A minimum 1-1/2" x 17 ga. woven wire lath is required for stucco over 1/2" thick.
- A minimum 1/8" furring is required for one coat stucco up to 1/2" thick.
- A minimum 1/4" furring is required for stucco over 1/2" thick.
- A means of drainage is required for one coat stucco having continuous insulation when installed over sheathing.

16. LAPPING OF LATH

Lap expanded metal lath 1/2 in. (13mm) at the sides and 1 in. (25mm) at ends.

- When end laps occur between the supports, lace or wire-tie the ends of the sheets of all metal plaster bases with 18 ga. galvanized, annealed steel wire.
- Lap woven wire lath one mesh at the sides and the ends.
- Secure side laps of metal plaster bases by tying between supports with 18 ga. wire at intervals not to exceed 9 in. (228mm). Side laps over sheathing shall be joined together with no more than two fasteners between rows of fasteners if not wire tied. Fasteners used for this application shall not be long enough to penetrate through the sheathing.
- Lath at each side to the flange of the control joint or trim accessory.
- Where furred or suspended ceilings butt into or are penetrated by columns, wall, beams, or other elements, terminate the sides and ends of the ceiling lath at the horizontal internal angles with a casing bead or similar device designed to keep the sides and ends of the ceiling lath and plaster free of the adjoining vertically oriented elements. Do not use cornerite at these locations.
- Attach diamond-mesh expanded metal lath, and wire lath to horizontal wood supports with 1.5 in. (38mm) roofing nails, driven flush with the plaster base and attached to vertical wood supports with 6-D common nails or 1 in. (25mm) roofing nails driven to a penetration of at least 3/4 in. (19mm) or 1 in. (25mm) wire staples driven flush with the plaster base. Staples shall have crowns not less than 3/4 in. (19mm) and shall engage not less than three strands of lath and penetrate the wood framing not less than 3/4 in. (19mm).

Section C

17. ATTACHMENT OF METAL PLASTER BASES TO MASONRY/CONCRETE

Fasteners shall be installed in rows not more than 16 in. (406mm) on center horizontally along the sheet and spaced vertically along each row not more than 7 in. (178mm) on center. All fasteners shall not be less than 3/4 in. (19mm) long with heads not less than 3/8 in. (10mm) wide. Securely wire-tie side and end laps between the fastener rows.

For complete methods, including soffits and ceilings, reference ASTM C1063.

18. MIXING WITH ADDITIVES

Use Adacryl Admix & Bonding Agent in the mixture, for improved workability and performance.

- Use 1-quart per bag of sanded Basecoats and portland cement based stucco finishes.
- Use 1-gallon per bag of Concentrate Basecoats.
- Add after dry components and the majority of the water has been mixed. Mix no longer than required to provide a uniform mixture. DO NOT OVER-MIX. Over mixing entrains excessive amounts of air which weaken the material.
- Do not re-temper.

Note: Do NOT use Adacryl Admix & Bonding Agent with Type F Base or Fastwall Accel-Cure. See specific product data sheet for complete information.

19. INSTALLATION 300 SERIES, FIBER-47 SCRATCH & BROWN

Parex USA 300 Series Scratch & Brown requires 3/4 in. (19mm) minimum Basecoat thickness on framed construction.

Fiber-47 Scratch & Brown is used with the traditional "3 Coat scratch and brown" procedure and is installed in 2 applications producing a 3/4 in. (19mm) minimum total thickness on sheathed or open frame construction. Follow ASTM C926 guidelines.

- Follow Environmental Conditions, Section 4.
- Apply to surface properly prepared for portland cement plaster.
- On lathed construction, apply to lathing installed in accordance with ASTM C1063.
- For applications to a very dense or smooth concrete, contact Parex USA Tech Support for additional information.
- Always wear proper safety equipment, including particle mask, eye protection and gloves when mixing and/or applying this product. See package for handling precautions.

20. MIXING FIBER-47 SCRATCH & BROWN

Fiber-47 & Teifs Scratch & Brown Concentrate

Fiber-47 Concentrate is mixed with sand conforming to ASTM C897 and water at the job site.

Mix 5.5 to 6.5 gallons (20.5-24.5L) of water and 3 to 4.5 cubic ft (240-360 lbs or 109-163kg) of plaster sand to each 80-pound (36.28kg) bag of Fiber-47 Scratch & Brown Concentrate at the time of use.

El Rey Fiber-47 Concentrate: Add to plaster mixer 6-1/2 to 8 gallons (24.6-30.3 liters) of mixing water for each 90-pound (40.9kg) bag of Fiber-47 concentrate to be mixed in a batch. Add to mixer 100 to 150 lbs. (45-68kg) of clean plaster sand equal to approx. 1-2/3 to 2-1/2 5-gallon (18.9L) pails of 2 damp sand for each bag of Fiber-47 concentrate to be mixed.

Actual water and sand quantity will vary depending on the density, gradation and moisture content of the sand. Use a mechanical mixer. Mixing time must not exceed five minutes.

Optimum sand additions depend on the sand gradation. Finer sand will result in a lower total sand addition to the Scratch & Brown Concentrate. Poor sand quality not conforming ASTM C897 may cause cracking and weakened plaster.

Fiber-47 & Teifs Scratch & Brown Sanded

Fiber-47 and Teifs Scratch & Brown Sanded is mixed with water (only) at the job site.

Mix approximately 1 1/2 gallons (5.7L) of water for each 80-pound (36.28kg) bag of Fiber-47 or Teifs Scratch & Brown Sanded at the time of use.

El Rey Fiber-47 Sanded

Mix 2-1/2 gallons (9.5L) of mixing water for each 80-pound (36.3kg) bag of Fiber-47 Sanded to be mixed in a batch.

Actual water quantity may vary. Use a mechanical mixer. Mixing time must not exceed five minutes.

- Use clean equipment for mixing and preparation.
- Use cool, clean, potable water; let hose run to clear it of hot water.
- Mixing water shall be at a uniform temperature above 40°F/4°C.
- Mix at low speed for a minimum of 3 minutes, until the mixture is smooth. Do not over mix, never mix more than 5 minutes. Mix each batch for the same amount of time.
- Mix batches the same size, using the same amount of water, to ensure consistency.
- For hand applications, stop mixer and allow mix to slake for 5 to 10 minutes. Briefly re-mix before using (approximately 2 minutes).
- Use Scratch & Brown immediately after mixing.
- Set is typically 30–45 minutes after mixing, depending on conditions. Do not re-temper.
- No unapproved additives, such as portland cement, antifreeze, etc., should be added under any circumstance. For additives not manufactured by Parex USA, contact Parex USA Technical Department.

21. APPLICATION 300 SERIES STUCCO BASECOATS

Scratch & Brown is applied to surfaces as prepared for portland cement plaster in conformance with ASTM Specification C1063 & ASTM C926.

Scratch & Brown is applied by hand trowel or plaster machine (gun) to a nominal 3/8 in. (9.5mm) thickness per coat. The total thickness of both coats together shall be 3/4-7/8 inch (19-22mm) for sheathed walls. Interrupt Scratch and Brown coat applications only at junctions of wall planes, openings or control joints to avoid cold joints and abrupt changes in the uniform appearance of succeeding coats.

Dampen concrete and masonry surfaces as necessary with clean water prior to application, there should be no puddling or visible water on the substrate when the base coat is applied.

- The first (scratch) coat must be applied with sufficient material to cover the lath. Use enough pressure to fully key and embed the lath and to allow for scoring or scratching the Basecoat. If spray applied, the first (Scratch Coat) must be pressed into the lath.
 - a. Ceilings: The surface of the first or scratch coat shall be scored or scratched horizontal or in one direction with a 1/4" x 1/4" notch trowel to form a mechanical key for brown coat.
 - b. Smooth and level the first pass directly after application, or scarify if applying a second coat after the first coat dries.
 - c. Allow the scratch coat to set before applying additional layers of Scratch and Brown.
 - d. Keep the scratch coat moist for a minimum of 48 hours after application by lightly fogging with water, as often as necessary. Start light fogging after initial set of 1–2 hours. Moist curing must be increased in windy and dry weather but may be reduced in damp weather.
- The second (brown) coat must be applied with sufficient material and pressure to ensure tight contact with the scratch coat and to bring the combined thickness of the Basecoat to a minimum 3/4 inch. Dampen the first (scratch) coat as necessary with clean water prior to application; there should be no puddling or visible water on the surface when a succeeding coat is applied.
 - a. Darby and or rod the brown coat with a straight edge, filling defects with plaster, bringing the surface to a true and even plane or specified tolerances.

Note: As a substrate for smooth finishes, when the brown coat begins to set you may cut back around all trims and accessories at a depth equal to the thickness of any following coats and or finishes.

- b. After the application has partially set and surface moisture has dissipated, float the brown coat uniformly to a surface receptive to the application of the finish coat.
- c. Keep the brown coat moist for a minimum of 48 hours by lightly fogging with water, as often as necessary. Start light fogging after initial set. Moist curing must be increased in dry weather and may be reduced in damp weather. Building codes require a minimum 48

hours moist cure for portland cement plaster scratch coats and a minimum 48 hours moist cure for brown coat.

- d. After Moist curing, allow the Stucco Base to air dry.
 - 1) Minimum 24 hours before applying Parex USA Stucco Level Coat with or without Krak-Shield Fiberglass Mesh.
 - 2) Minimum of 3 additional days if applying an Parex USA Acrylic Primer.
 - 3) Minimum of 5 additional days before application of Parex USA Acrylic or Elastomeric based Finish Coat.
 - 4) Minimum of 5 additional days before application of portland cement based stucco finish.
- e. After drying, additional applications to the brown coat, such as EPS foam shapes and or skim coat-Basecoat applications with or without mesh embedded can be applied during the additional 5 days of natural/dry brown coat curing.

22. INSTALLATION 100 SERIES STUCCO BASECOAT

100 Series Stucco Basecoat are installed in one or two applications producing a 3/8 in. (9.5mm) minimum thickness.

- Follow Environment Conditions, Section 4
- Apply to surface prepared for portland cement plaster.
- Lath installed in accordance with ASTM C1063, but see Page 16, Exceptions to ASTM C1063 for 100 Series Assemblies.
- For application to very dense or smooth concrete, contact Parex USA Technical Department for additional information.
- Always wear proper safety equipment, including particle mask, eye protection and gloves when mixing and/ or applying this product. See package for handling precautions.

23. MIXING 100 SERIES STUCCO BASECOAT

100 Series Stucco Basecoat Concentrate

210 Armourwall Stucco Base Concentrate, TeifsOne Coat Concentrate, LaHabra Fastwall Concentrate, El Rey Fastwall Concentrate

Stucco Base Concentrates are mixed with ASTM C897 or ASTM C144 washed plaster sand and water at the job site.

Mix 4.5 to 6 gallons (17-22.7L) of water and 2-1/2 to 3 ft³ (200-240 lb. or 91-109kg) of washed plaster sand that meets ASTM C897 or ASTM C144 to each 80-pound (36.3kg) bag of Stucco Base Concentrate at the time of use.

Actual water and sand quantity will vary depending on the density, gradation and moisture content of the sand. Use a mechanical mixer. Mixing time must not exceed five minutes.

Optimum sand additions depend on the sand gradation. Finer sand will result in a lower total sand addition to the Stucco Base Concentrate. Poor sand quality not meeting ASTM C897 or ASTM C144 may cause cracking and weakened plaster.

100 Series Stucco Basecoat Sanded

202 Armourwall Stucco Base Sanded , TeifsOne Coat Sanded, LaHabra Fastwall Sanded, El Rey Fastwall Sanded Stucco Base Sanded is mixed with water (only) at the job site.

Mix approximately 1 1/2 gallons (5.7L) of water for each 80-pound (36kg) bag of Stucco Base Sanded at the time of use.

Actual water quantity may vary. Use a mechanical mixer. Mixing time must not exceed five minutes.

- Use clean equipment for mixing and preparation.
- Use cool, clean, potable water; let hose run to clear it of hot water.
- Mixing water shall be at a uniform temperature above 40°F/4°C.
- Mix at low speed for a minimum of 3 minutes, until the mixture is smooth. Do not over mix, never mix more than 5 minutes. Mix each batch for the same amount of time.
- Mix batches the same size, using the same amount of water, to ensure consistency.
- For hand applications, Stop mixer and allow mix to slake for 5 to 10 minutes. Briefly re-mix before using (approximately 2 minutes).
- Use Stucco Base immediately after mixing.
- Sets in typically 30–45 minutes after mixing, depending on conditions. Do not re-temper.
- No unapproved additives, such as portland cement, antifreeze, etc., should be added under any circumstance. For additives not manufactured by Parex USA, contact Parex USA Technical Department.

Mixing With Additives

Use Adacryl Admix & Bonding Agent in the mixture, for improved workability and performance.

- Parex USA Adacryl Admix & Bonding Agent may be added to 100 Series Stucco Bases:
- Use 1-gallon per 80 lb bag of Concentrate. 1-quart per 80 lb bag of Sanded.
- Add Adacryl Admix & Bonding Agent after the basecoat and the majority of the water has been mixed. Mix no longer than required to provide a uniform mixture. DO NOT OVER-MIX. Over mixing entrains excessive amounts of air which weaken the material.
- Do not re-temper.

24. APPLICATION 100 SERIES STUCCO BASECOAT

Applied by hand trowel or plaster machine (gun) to a 3/8 in. (9.5mm) minimum thickness. Interrupt Brown coat applications only at junctions of wall planes, openings or control joints to avoid cold joints and abrupt changes in the uniform appearance of succeeding coats.

Dampen high-suction concrete and masonry surfaces as necessary with clean water prior to application, there should be no visible water on the surface when a succeeding coat is applied. For low-suction solid bases, such as dense concrete or smooth brick contact Parex USA Technical Services.

- The Stucco Basecoat is installed in one or two applications producing a 3/8 in. (9.5mm) minimum thickness and must be applied with sufficient material and pressure to fully key and embed the lath.

- a. For applications greater than 1/2 in. (12.7mm) thick, allow the first coat to set before applying additional layers of Stucco Basecoat.
 - b. If spray applied the first coat must be pressed into the lath and follow with a second coat.
 - c. No wire or lath should be visible through the Basecoat.
- Smooth and level the basecoat directly after application. If applying a second coat, scarify after the first coat dries.
 - a. Dampen surfaces as necessary with clean water prior to application; there should be no puddling or visible water on the surface when a succeeding coat is applied.
 - b. The second coat must be applied with sufficient material and pressure to ensure tight contact with the first.
 - c. Darby and or rod the brown coat with a straight edge, filling defects with plaster, bringing the surface to a true and even plane or specified tolerances.

Note: As a substrate for smooth finishes, when the brown coat begins to set you may cut back around all trims and accessories at a depth equal to the thickness of any following coats and or finishes.

- d. After the application has partially set and surface moisture has dissipated, float the brown coat uniformly to provide a surface receptive to the application of the finish coat.
- e. Allow Stucco Basecoat to set before applying additional layers of Stucco Basecoat. If additional Stucco Basecoat is not applied the same day, for hand trowel application moisten the dry Stucco Basecoat if or as necessary before applying second coat. There should be no puddling or visible water on the surface when a succeeding coat is applied.

Level, Primer or Finish Coat	Min. Moist Cure (hours)	Min. Additional Air Dry after Moist Cure
Parex USA Stucco Level Coat with or without Fiberglass Reinforcing Mesh.	24	1 day
Parex USA Portland Cement-Based Stucco Finish *Dampen surface immediately prior to portland cement-based stucco finish application. Primer is never allowed behind portland cement-based stucco finish.	24	1 day
Parex USA Acrylic Finish with Parex USA Primer *Finish may be applied as soon as primer is dry.	24	1 day
Parex USA Acrylic Finish without primer.	48	1 day
Parex USA Elastomeric Finish with Parex USA Primer.	48	3 days
Parex USA Elastomeric Finish without primer.	48	5 days

*Longer moist cure and extended dry times may give better results.

- f. After drying, additional applications to the brown coat, such as EPS foam shapes and or skim coat-Basecoat applications with or without mesh embedded can be applied during the additional 5 days of natural/dry brown coat curing.

25. INSTALLATION TYPE F BASE AND FASTWALL ACCEL-CURE

Type F Base and Fastwall Accel-Cure Stucco Bases are Commercial grade fiber-reinforced Polymer modified Basecoats used as a single layer Basecoat or scratch & brown installed in one or two applications producing a 1/2 in. (12.7mm) minimum thickness.

- No moist curing required
- Under normal conditions, ready to accept finish after 24 hours.
- Apply to surface prepared as for portland cement plaster.
- On lathed construction, apply to lathing installed in accordance with ASTM C1063.
- Follow Environment Conditions, Section 4
- For application to very dense or smooth concrete, contact Parex USA Technical Department for additional information.
- Always wear proper safety equipment, including particle mask, eye protection and gloves when mixing and/ or applying this product. See package for handling precautions.

26. MIXING TYPE F BASE AND FASTWALL ACCEL-CURE

Type F Base Concentrate

Type F Base Stucco Base Concentrate requires the addition of water, FR 100 Admixture and is mixed with ASTM C897 or ASTM C144 washed plaster sand and water at the job site.

Mix 1.75 gallons (6.62L) of water to 1.75 gallons (6.6L) of FR-100 and 2-1/2 to 3 cubic ft (200-240 lb. or 91-109kg) of washed plaster sand that meets ASTM C897 or ASTM C144 to each 80-pound (36kg) bag of Type F Base Stucco Base Concentrate at the time of use.

Actual water quantity will vary depending on the density, gradation and moisture content of the sand. Use a mechanical mixer. Mixing time must not exceed five minutes.

Optimum sand additions depend on the sand gradation. Finer sand will result in a lower total sand addition to the Type F Stucco Base Concentrate. Poor sand quality may cause cracking and weakened plaster.

Note: FR-100 is packaged in 3.5 gallon (13L) pails for mixing two bag batches as follows:

- Start by adding 3.5 gallons (13L) of cool, clean potable water to mixer.
- Add one 3.5 gallons (13L) pail of FR-100 Admixture.
- Add two 80-pound (36kg) bags of Type F Basecoat.
- Add 5 to 6 cu. ft. (400-480 lb or 180-218kg) of washed plaster sand.
- Use clean equipment for mixing and preparation.
- Use cool, clean, potable water; let hose run to clear it of hot water.
- Mixing water shall be at a uniform temperature above 40°F/4°C.
- Mix at low speed for a minimum of 3 minutes, until the mixture is smooth. Do not over mix, never mix more than 5 minutes. Mix each batch for the same amount of time. DO NOT OVER-MIX. Over mixing entrains excessive amounts of air which weaken the material.

- Mix batches the same size, using the same amount of water, to ensure consistency.
- For hand applications, stop mixer and allow mix to slake for 5 to 10 minutes. If needed, add water for workability. Briefly re-mix before using (approximately 2 minutes).
- Use Type F Stucco Base immediately after mixing.
- Sets in typically, 30–45 minutes after mixing, depending on conditions. Do not re-temper.
- No unapproved additives, such as portland cement, antifreeze, etc., should be added under any circumstance.

Note: Do NOT use Adacryl Admix & Bonding Agent with Type F Base. See specific product data sheet for complete information.

Fastwall Accel-Cure Concentrate

Fastwall Accel-Cure Stucco Base Concentrate is mixed with ASTM C897 or ASTM C144 washed plaster sand and water at the job site.

Mix 3.5 to 4.5 gallons (13-17L) of water and 2-1/2 to 3 ft³ (200-240 lb. or 90-109kg) of washed plaster sand that meets ASTM C897 or ASTM C144 to each 80-pound (36kg) bag of Fastwall Accel-Cure Stucco Base Concentrate at the time of use.

Actual water quantity will vary depending on the density, gradation and moisture content of the sand. Use a mechanical mixer. Mixing time must not exceed five minutes.

Optimum sand additions depend on the sand gradation. Finer sand will result in a lower total sand addition to the Fastwall Accel-Cure Stucco Base Concentrate. Poor sand quality may cause cracking and weakened plaster.

- Use clean equipment for mixing and preparation.
- Use cool, clean, potable water; let hose run to clear it of hot water.
- Mixing water shall be at a uniform temperature above 40°F/4°C.
- Mix at low speed for a minimum of 3 minutes, until the mixture is smooth. Do not over mix, never mix more than 5 minutes. Mix each batch for the same amount of time. DO NOT OVER-MIX. Over mixing entrains excessive amounts of air which weaken the material.
- Mix batches the same size, using the same amount of water, to ensure consistency.
- For hand applications, stop mixer and allow mix to slake for 5 to 10 minutes. If needed, add water for workability. Briefly re-mix before using (approximately 2 minutes).
- Use Fastwall Accel-Cure Stucco Base immediately after mixing.
- Sets in typically 30–45 minutes after mixing, depending on conditions. Do not re-temper.
- No unapproved additives, such as portland cement, antifreeze, etc., should be added under any circumstance.

Note: Do NOT use Adacryl Admix & Bonding Agent with Fastwall Accel-Cure. See specific product data sheet for complete information.

27. APPLICATION TYPE F BASE AND FASTWALL ACCEL-CURE

Type F Base and Fastwall Accel-Cure Stucco Base Concentrates are applied by hand trowel or plaster machine (gun) to a 1/2 in. (12.7mm) minimum thickness over lath. Interrupt Brown coat applications only at junctions of wall planes, openings or control joints to avoid cold joints and abrupt changes in the uniform appearance of succeeding coats.

Dampen high-suction concrete and masonry surfaces as necessary with clean water prior to application, there should be no visible water on the surface when a succeeding coat is applied.

- Type F Base and Fastwall Accel-Cure are installed in one or two applications producing a 3/8 in. (9.5mm) minimum thickness and must be applied with sufficient material and pressure to fully key and embed the lath.
 - a. For applications greater than 1/2 in. (12.7mm) thick, allow the first coat to set before applying additional layers of Stucco Base.
 - b. If spray applied the first coat must be pressed into the lath and follow with a second coat.
 - c. No wire or lath should be visible through the Basecoat.
- Smooth and level directly after application, or scarify if applying a second coat after the first coat dries.
 - a. Dampen surfaces as necessary with clean water prior to application; there should be no visible water on the surface when a succeeding coat is applied.
 - b. The second coat must be applied with sufficient material and pressure to ensure tight contact with the first.
 - c. Darby and or rod the brown coat with a straight edge, filling defects with plaster, bringing the surface to a true and even plane or specified tolerances.

Note: As a substrate for smooth finishes, when the brown coat begins to set you may cut back around all trims and accessories at a depth equal to the thickness of any following coats and or finishes.

- d. After the application has partially set and surface moisture has dissipated, float the brown coat uniformly to provide a surface receptive to the application of the finish coat.
- e. No moist curing required.
- f. Allow the brown coat to dry thoroughly before applying acrylic primers or finishes.
- g. Cement-based finishes may be applied as soon as base has set sufficiently to receive them. For portland cement-based stucco finish, use 1 quart of Parex USA Adacryl Admix & Bonding Agent as an admix for each 90 lb. bag of finish. Add the Adacryl Admix at the end of the mixing process. Turn blades off after mixing.

Note: Continuous mixing may cause excessive air entrainment.

28. APPLICATION OF STUCCO BASECOATS OVER CONCRETE AND MASONRY (GENERAL)

Solid bases shall have sufficient suction (ability to absorb water) or surface roughness or both to ensure an adequate bond for stucco Basecoats.

Dampen high-suction concrete and masonry surfaces as necessary with clean water prior to application, there should be no visible water on the surface when a succeeding coat is applied. For low-suction solid bases, such as dense concrete or smooth brick contact Parex USA Technical Services.

The use of Parex USA Adacryl Admix & Bonding Agent as an admixture is recommended when applying Stucco Basecoats over unpainted concrete (precast or formed), structural clay tile, clay brick, or stone.

- A minimum of 3/8" (10mm) thickness direct bond brown coat may be used over concrete and masonry substrates.
- Do not apply stucco directly over painted substrates. Remove the paint or install Metal Lath
 - a. The Basecoat is installed in one or two applications producing a 3/8 in. (9.5mm) minimum thickness and must be applied with sufficient material and pressure to develop direct bond or fully key and embed the lath.
 - b. Follow the application instructions for the stucco base being used.

29. CURING

Careful, thorough moist curing is essential for quality stucco. The stucco contractor is responsible for keeping the scratch and brown coats moistened for the specified time. Moist curing is required for conventional Stucco Basecoat applications except when the maximum level of admixture is used or contained in as part of the Stucco Basecoat or when high humidity is prevalent.

- Curing is the act or processes of producing a moisture environment favorable to cement hydration, resulting in the setting or hardening of the plaster.
- Acrylic based finishes cure by drying, do not moist cure Acrylic finishes.
- Except for severe drying conditions, the wetting of portland cement based finish coats should be avoided.
- Protect freshly applied stucco materials from rain and freezing for a minimum of 48 hours after application.
- Provide sufficient moisture by moist curing to permit continuous hydration of the cementitious materials. The most effective procedure for curing and time between coats will depend on climatic and job conditions.

Section D

- Consider the physical characteristics of the structure as well as the previously mentioned conditions when selecting the method of curing. The method can be one or a combination of the following:
 - a. Moist curing is accomplished by applying a fine fog spray of water as frequently as required. Generally twice daily in the morning and evening.
 - b. Plastic film, when taped or weighted down around the perimeter of the plastered area, can provide a vapor barrier to retain the moisture between the membrane and plaster. Care must be exercised in placing the film: if too soon, the film may damage surface texture; if too late, the moisture may have already escaped.
 - c. Canvas, cloth, or sheet material barriers (tenting) can be erected to deflect sunlight and wind, which will reduce the rate of evaporation. If the humidity is low, this option alone will not provide adequate protection.

After curing and drying, additional applications to the brown coat, such as EPS foam shapes, Stucco Level Coat with or without Krak-Shield mesh embedded can be applied.

When Fiber-47 Scratch & Brown is used, this should occur after the minimum 48 hours of moist curing.

*Curing is described in ASTM C926 as follows (*Version C926-05):*

3.2.11 curing—the act or processes of producing a moisture environment favorable to cement hydration, resulting in the setting or hardening of the plaster.

8. Curing and Time Between Coats

8.1 Provide sufficient moisture in the plaster mix or by moist or fog curing to permit continuous hydration of the cementitious materials. The most effective procedure for curing and time between coats will depend on climatic and job conditions. (See X1.4.2.)

8.2 Sufficient time between coats shall be allowed to permit each coat to cure or develop enough rigidity to resist cracking or other physical damage when the next coat is applied. (See X1.4.2.)

X1.4.2 Time Between Coats and Curing for Portland Cement-Based Plaster:

X1.4.2.4 Some moisture must be retained in or added back to freshly applied portland cement-based plaster. If the relative humidity is relatively high (above 75 %), the frequency for rewetting a surface may be reduced. If it is hot, dry, and windy, the frequency of rewetting must be increased.

X1.4.2.5 Consider the physical characteristics of the structure as well as the previously mentioned conditions when selecting the method of curing. The method can be one or a combination of the following:

(1) Moist curing is accomplished by applying a fine fog spray of water as frequently as required, generally twice daily in the morning and evening. Care must be exercised to avoid erosion damage to portland cement-based plaster surfaces. Except for severe drying conditions, the wetting of finish coat should be avoided.

30. KRAK-SHIELD ASSEMBLY

If your project has been upgraded to the Krak-Shield Assembly, you will be installing layer of fiberglass reinforcing mesh embedded in Parex USA Stucco Level Coat over your cured stucco brown coat.

- Materials required for Krak-Shield assembly:
 - a. Stucco Level Coat or Any EIFS Basecoat
 - b. Reinforcing Mesh (4.5 or 12 oz.)
- Standard Reinforcement of Parex USA Krak-Shield assemblies: 355 Standard Mesh, is 4.5 oz. fiberglass 38 in. (96.5cm) wide. The mesh is alkali-resistant and highly flexible for full walls or details.
- 356 Short Detail Mesh is 4.5 oz. fiberglass 9.5 in. (24cm) wide mesh is alkali-resistant and highly flexible for use on details and to bridge butted 12 oz fiberglass mesh seams.
- 358.10 Intermediate Impact Mesh is 12 oz. fiberglass 38 in. (96.5cm) wide mesh is alkali-resistant.
- The stucco Basecoat must be cured, hard and dry before applying the Krak-Shield assembly.

Application

- After Moist Curing, allow Stucco Base to air dry for 24 hours before applying the leveling and reinforcing coat.
- Mix Stucco Level Coat or Basecoat in accordance with its current product datasheet.
- Using a stainless steel trowel, apply the Stucco Level Coat over the dry brown coat at a thickness of 1/16–3/32 in. (1.6–2.4mm).
- Fully embed the Parex USA reinforcing mesh into the wet Stucco Level Coat including diagonal strips at corners of openings and trowel smooth or lightly sponge float. If 355 Standard Mesh is used, seams are overlapped 2½ in (63mm), If 358.6 Mesh is used, seams can be overlapped or butted and bridged with strips of 9-1/2 inch Detail Mesh 356 and if the 358.10 Intermediate Mesh is used, seams are overlapped or butted and bridged with strips of 9-1/2 inch Detail Mesh 356.
- Allow Stucco Level Coat to air dry for 24 hours before applying the primer or finish coat.

Note: Parex USA Acrylic Bonder & Admix must be used as an admix when Cement Based Stucco Finishes are to be applied over Stucco Level Coat.

31. WATERMASTER OVER CONCRETE OR MASONRY

Parex USA WeatherDry Basecoat & Adhesive is a waterproofing Basecoat that can be applied over the brown coat and is required for WaterMaster assemblies that do not use Weatherseal and lath on concrete or masonry. This product requires the addition of portland cement, WeatherDry is not for use where Cement based Stucco Finishes will be applied. They will not bond.

- Use clean equipment for mixing and preparation.
- Follow Environment Conditions, Section 4
- Half batches may be mixed for convenience.
- Sets in typically 1 to 2 hours after mixing, depending on conditions. Do not re-temper.
- No unapproved additives, such as antifreeze, etc., should be added under any circumstance.
- Application to sloped surfaces should be minimum pitch of 4/12, with the run of the slope no more than 12 in. (30.5cm).
- Always wear proper safety equipment, including particle mask, eye protection and gloves when mixing and/or applying this product. See package for handling precautions.

Application

- After properly moist curing the Stucco Base, allow to air dry for 24 hours before applying the WeatherDry. WeatherDry is not for use on stucco Basecoats using Cement based Stucco Finishes.
- Mix in accordance with the current product datasheet.
- Apply WeatherDry Basecoat with a stainless steel trowel to the stucco surface of the to a uniform thickness of 1/16-3/32 in. (1.6-2.4mm).
- Embed Parex USA 355 Standard Mesh immediately in the wet WeatherDry Basecoat & Adhesive. Smooth the surface of the WeatherDry with a trowel until the reinforcing mesh is fully embedded. The color of the mesh should not be visible beneath the surface of the WeatherDry
 - a. If Standard 4.5 oz. Mesh is used, seams are overlapped a minimum 2½ in (63mm).
 - b. If Intermediate Impact 12 oz. Mesh is used, seams are overlapped or butted and bridged with 356 Short Detail 4.5 oz, 9.5 in. (24cm) Mesh.
- Trowel the surface of the WeatherDry until the reinforcing mesh is fully embedded. The color of the mesh should not be visible in the surface of the WeatherDry Basecoat. A slight pattern of the mesh is acceptable
- The WeatherDry Basecoat must be dry and hard prior to applying additional coatings.

32. PREFORMED FOAM SHAPES

If your project includes preformed foam shapes, instead of using metal lath and stucco Basecoat to protect the foam, an adhesive and Basecoat with Parex USA Reinforcing Mesh embedded can be used.

- The foam shall be code conforming Type I expanded polystyrene, nominal 1 lb/ ft³ (15kg/m³).
- For dark color limitations, contact Parex USA Technical Services. The stucco Basecoat must be cured, hard and dry before attaching the foam shape or popout.

- Acrylic Finishes: Coat with Fiberglass mesh reinforced Parex USA EIFS Basecoat.
- Cement Finishes: Coat with Fiberglass mesh reinforced LaHabra Poly-Bond.
- Application to sloped surfaces at the top of embellishments should be limited to minimum pitch of 4:12 with the run of the slope no more than 12 in. (30.5cm).
- Foam shape embellishments are attached adhesively, or using a Parex USA EIFS cementitious adhesive or LaHabra Polybond.
- Large shapes may require temporary mechanical fasteners to hold the shape in place while the adhesive dries.
- Shapes are not to be used to bridge expansion or control joints unless the shapes are adhered to only one side of the joint and allowed to “float” over the joint to conceal the joint for aesthetic purposes. The unbonded “floated” portion shall not exceed 4 in. in width. The bonded portion shall be not less than 4 in. in width. Otherwise, at such points, the shape is to be separated by an expansion joint with backer rod and sealant used in the joint.

Application

- Attaching foam shapes adhesively:
 - a. After moist curing allow Stucco Base to air dry for 24 hours.
 - b. Apply the Basecoat & Adhesive to the entire backside of the foam shape using a 3/8”-5/8” deep x 3/8”-5/8” wide U notch trowel with 1-1/2” spacing between. Firmly press the foam shape onto the brown coat in the proper location and provide temporary support if necessary until the adhesive has completely dried. Temporary fastening may be required until the adhesive has dried
- Coating foam shapes:
 - a. Rasp EPS board after 24 hours and when adhesive has fully cured and bonded.
 - b. Using a stainless steel trowel, apply the Basecoat mixture to the rasped surface of the EPS board to a uniform thickness of 1/16-3/32 in. (1.5-2.4mm) for EIFS Basecoats or 3/16 in. (6mm) for LaHabra PolyBond.
 - c. Embed the Parex USA reinforcing mesh immediately in the wet Basecoat. Smooth the surface of the Basecoat with a trowel until the reinforcing mesh is fully embedded and the Basecoat thickness is approximately 1/16 in. (1.5mm). The color of the reinforcing mesh should not be visible at the surface of the Basecoat & Adhesive material.
 - d. The Reinforcing Mesh covers the face and edges of the foam shape and extends a minimum of 2 1/23 in (65mm) onto the brown coat or back-wraps the foam.

Note: It is recommended that a Parex USA Acrylic Bonder & Admix be as an admix in used when Cement Based Stucco Finishes are to be applied over Poly Bond.

Section E

33. FINISHES

The following finish choices provide color and texture for Parex USA Stucco Assemblies:

Note: Parex USA Primer or Sanded Primer is highly recommended as a primer under all Parex USA acrylic and elastomeric finishes.

Application

- Mix in accordance with current product data sheets.
- Always maintain a wet edge and work to corners or joints. For best color consistency, use finish with the same batch number within a wall section.
- Keep container closed when not in use.
- Using a stainless steel trowel, apply a level coat of Swirl Fine, Sand Fine, Sand Coarse to a uniform thickness. Sand Fine and Sand Coarse should be no thicker than the largest aggregate. The texture is achieved by hand motion and/or type of tool used. For uniformity of color and texture, maintain a wet edge while applying.
- Sand Smooth Finish
 - a. Cannot generally be floated. Texture will be “as troweled.”
 - b. For smoothest application, apply in two tight coats. Allow first coat to dry enough that it will not be disturbed during application of the second coat. When second coat is partially set, trowel to desired texture. Light, consistent misting with water during troweling will allow for a smoother texture. Variations in color tint and texture should be expected.

Dry-TEX Application

- Follow the first 3 steps in the Application section above.
- Texturing Sand Fine and Sand Coarse:
 - a. Use a clean plastic float or stainless steel trowel. A plastic float will roll the large aggregates more than a stainless steel trowel.
 - b. Continuously dry clean the plastic float or steel trowel while texturing.
 - c. Use consistent pressure and motion to achieve the desired texture.
- Spray application: To achieve consistent texture, spray application must use consistent motion, pressure, distance and spray angle. A job-site mock up for spray application is advised.

Ultra E-Lastic and E-Lastic Elastomeric Finish

Application

- Follow 3 steps in the Application section above.
- Texturing: use a clean plastic float or stainless steel trowel, wipe frequently. Apply moderate pressure with consistent motion, rolling the large aggregates to obtain the desired texture.

Cement Based Stucco Finishes

(Not for use over EIF System Basecoats, Acrylic Primer, Acrylic or Elastomeric Finishes)

Exterior Stucco Color Coat: Available in 16/20 and 20/30 aggregates. Several textures can be achieved with each, Float, Skip Trowel-Textured, Machine Applied-Dash and Free Style Finishes.

Mixing

- Using a mechanical plaster mixer, start with approximately three gallons of cool, clean potable water. Add one 90 lb. bag of Stucco Finish and mix to a thin consistency until it is smooth and free of lumps
- Add all of the color packs (1 per bag for a standard color, a maximum of 4 standard 1 lb. color packs can be added per 90 lb. bag for increased color depth) to be used for one “batch” and mix until color is evenly dispersed (approximately 1 to 2 minutes).
- Thin the mixture with water and then add the remaining bags of stucco finish (adjusting water as necessary) to correspond with the number of color packs mixed in the previous step. Allow material to mix at a somewhat stiff consistency for approximately 15 minutes. Add the remaining amount of water to achieve the desired consistency, and then disengage the mixing blades for approximately 5 to 10 minutes in order to allow the material to slake. Doing this allows the material to start its initial set.
- Re-engage the mixing blades for approximately 5 minutes, adjusting the water and mixing only long enough to achieve uniformity. The material is now ready to be removed from the mixer and applied to the wall. (See Application section.)
- For additional batches of the same material, thin the remaining mixture with water, then repeat previous 2 steps. Wash out mixer completely to change colors.

Note: All Parex USA cement/lime finish products should be mechanically mixed for a minimum of 20 minutes after the last bag of stucco base is added to fully disperse the color.

Application

Color coat shall be approximately 1/8" thick.

Hand application: Prior to application of exterior stucco finish, the portland cement Basecoat shall be dampened with clean water. Allow surface moisture to dissipate prior to the application of the Stucco Finish.

Note: Exterior Stucco Color Coat is not designed for use as a smooth trowel finish. Santa Barbara Mission Finish is the product designed for this use.

Standard (16/20) Sand Float finish

Trowel apply an even coat completely covering the Basecoat and sponge float the surface with circular motions to the desired or approved finish level, using as little water as possible.

Standard (16/20) Skip Trowel textured finish

Trowel or float apply an even coat completely covering the Basecoat and sponge float the surface with circular motions to a uniform float finish level.

Allow the first application to set. Prior to drying out, apply a small amount of the same material over the floated background using the skip trowel method to the desired finish level then lightly trowel over the entire area, "knocking it down" or lightly flattening it out, using random strokes of the trowel.

Fine Float (20/30) sand Float finish

Trowel apply an even coat completely covering the Basecoat and allow it to set. Prior to drying out, trowel apply a second tight coat of the same material over the first. Sponge float the surface with circular motions to the desired or approved textures level, using as little water as possible.

Machine application

Spray the first coat to completely cover the dry portland cement brown coat.

Correct first coat imperfections by filling and/or scraping. Allow to dry prior to applying the second texture coat.

Santa Barbara Mission Finish (SBMF): provides an economical, long lasting, durable, integrally colored smooth finish over stucco Basecoats. Several textures can be achieved, Smooth, Semi-Smooth, Cat Face, Mission, and Free Style Finishes.

Mixing

- Using a mechanical plaster mixer, start with approximately three gallons of cool, clean potable water. Add one 90 lb. bag of Santa Barbara Mission Finish and mix to a thin consistency until it is smooth and free of lumps.
- Add all of the color packs (1 per bag for a standard color, a maximum of 4 standard 1 lb. color packs can be added per 90 lb. bag for increased color depth) to be used for one "batch" and mix until color is evenly dispersed, (approximately 1 to 2 minutes).
- Thin the mixture with water and then add the remaining bags of stucco finish (adjusting water as necessary) to correspond with the number of color packs mixed in step

2. Allow material to mix at a somewhat stiff consistency for approximately 15 minutes. Add the remaining amount of water to achieve the desired consistency, and then disengage the mixing blades for approximately 5 to 10 minutes in order to allow the material to slake.

- Re-engage the mixing blades for approximately 5 minutes, adjusting the water and mixing only long enough to achieve uniformity. (See Application section.)
- For additional batches of the same material, thin the remaining mixture with water, then repeat the previous 2 steps. Wash out mixer completely to change colors.

Note: All Parex USA cement/lime finish products should be mechanically mixed for a minimum of 20 minutes after the last bag of stucco base is added to fully disperse the color.

Application

- Color coat shall total approximately 1/8" thick.
- Hand application: Prior to application of SBMF stucco finish, the portland cement Basecoat shall be dampened with clean water.. Allow surface moisture to dissipate prior to the application of the Stucco Finish.
- Trowel or float apply an even coat completely covering the Basecoat and allow it to set. Prior to drying out, trowel apply a second tight coat of the same material over the first to the desired finish level. Allow the application to set. Prior to drying out, trowel the surface to the desired or approved finish level using as little water as possible.

34. SEALANTS

Sealants are not part of the Parex USA stucco assembly, but are important to the construction. The sealant installer shall consult with Section 07 90 00 of the project specification. The architect, engineer, builder, owner or owner's representative shall select the sealant and provide written approval from the sealant manufacturer. Sealants for use with Parex USA stucco materials must comply with the following:

- ASTM C920 Grade NS, Type M or S. The designer shall specify the minimum class.
- Sealants shall be tested in accordance with ASTM C719.
- Sealants shall be installed in accordance with ASTM C1193.

35. APPLICATION OF SEALANT

This section applies to the sealant installer, not the stucco installer. It is recognized that a contractor who installs stucco can contract separately to install sealants. Consult Specification ASTM C1193.

Expansion joint and perimeter joint width should be specified and detailed on drawings by the project designer.

Apply all sealants over closed cell backer rod or bond breaker tape.

Sealants are used with sealant manufacturer's recommended primer and backer rod or bond breaker tape. Fillet or cove sealant joints are acceptable if used with 1/2 in. (13mm) or greater bond breaker tape or triangular backer rod.

Make sure that sealant does not close weep holes at weep screed locations, at head flashing, or at locations where water drainage is imperative.

Do not adhere sealants to finishes.

Because of the wide variety of surface materials and conditions, check with the sealant manufacturer to ensure compatibility of the sealants with the surface(s) to which they will be applied. Special surface preparation or primers may be necessary.

36. PROTECTING THE SYSTEM AFTER INSTALLATION

After the application of the Stucco Base, the ambient air temperature must remain at 40°F (4°C) or higher, for a minimum of 48 hours, or until the Stucco Base is completely dry, which may take several days in high humidity and/or cool weather.

Protecting the System

Freshly applied Stucco Base that seem hard and dry on the surface, often require protective measures to ensure their proper cure. This is especially so, if freezing temperatures, rain, snow, or other damaging weather conditions are likely.

Temperatures below 40°F (4°C) can prevent the proper curing of finishes.

Precipitation can affect the proper curing of the stucco materials.

As circumstances may dictate, work according to the weather or provide appropriate sheltering, such as tenting and/or trapping. To maintain proper curing temperature, supplemental means of heating the temporary shelter may have to be used.

Flashings and Sealants

While providing a means for drainage of incidental water from behind the stucco, Parex USA Stucco Base, like other wall claddings, relies on water resistive barriers, flashings and sealants to provide a weather resistant exterior wall envelopes and to stop the intrusion of water from the exterior. Always provide a temporary means of protecting the assembly at critical locations if there are substantial delays before permanent flashings and sealants are installed.

These locations include window and door perimeters; expansion joints; abutments to dissimilar materials; penetrations such as fixtures, hose bibs, outlets, scuppers, etc.; and terminations at the tops and bottoms of walls.

37. CLEANING UP

Clean off spatters, dropping, overspray, etc. Parex USA Products immediately with water. Tools used in the application should be cleaned immediately after use. Contact Technical Services for any additional questions at 1-800-226-2424.

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