Exterior Insulation and Finish System

Application Guide

STANDARD SYSTEM APPLICATION TO MASONRY AND CONCRETE

Always use the latest version of the Parex Application Guide. This guide focuses on the application techniques for the Parex Exterior Insulation & Finish Systems (EIFS).
STANDARD SYSTEM
Adhesively attached, standard insulation board, using vertical ribbons of Parex base coat & adhesive over an approved substrate.
INTRODUCTION: Exterior Insulation and Finish Systems (EIFS) have been used successfully for over fifty years in Europe and forty years in the US. It is an exterior wall cladding that is lightweight, flexible, durable and adds energy saving insulation to the wall. The insulation can be shaped to easily provide architectural details. There are a vast choice of finish textures and colors available. The continuous reinforced lamina over the insulation makes this a face-sealed system. Standard EIFS does not require a weather or moisture resistive barrier behind them because they are a face-sealed cladding. Windows, doors and other objects do pass through the exterior wall. Proper flashing and sealants at those penetrations effectively protect the entire assembly from exterior water penetration. All the components of the EIFS are also user and environmentally friendly. All the liquid and paste materials are water based. This chemistry provides a vapor permeable, breathable, exterior that will allow incidental water in an exterior wall assembly to easily dry out.

This guide begins with a list of Products that will be used for various segments of the three systems outlined. The second section of the guide covers General Installation Requirements. The third section describes the application of the Standard EIFS from insulation board attachment through application of finish and sealants. The final section contains material coverage for your estimating purposes.
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1. PRODUCTS

Parex has developed a wide range of products to meet the physical and performance conditions of most projects. For a more detailed description of these products, please review our published Product Data Sheets and Material Safety Data Sheets (MSDS).

Base Coats/Adhesives

Cementitious

Uses: As base coats over EPS. As masonry levelers. As Adhesives for adhering EPS to masonry, exterior grade gypsum sheathing and glass mat gypsum sheathing.

121 Base Coat & Adhesive, is a pail product mixed with Type I or II Portland cement in a ratio of 1 part 121 to 1 part cement by weight.

Reinforcing Mesh

355 Standard Mesh, is a 153 g/sq m., alkali resistant glass fiber reinforcing mesh. Uses: Embedded into base coat for typical application requirements to cover Intermediate mesh.

356 Detail Mesh, is a highly flexible 153 g/sq m. reinforcing mesh. Uses: For backwrapping and fabricating special shapes or contours, for double meshing corners.

357 Corner Mesh, is a heavy duty, high tensile strength, 244 g/sq m mesh, specially folded. Uses: Embedded in base coat for application at outside corners only.

358.10 Intermediate Impact Mesh, is a high tensile strength, 407 g/sq m glass fiber reinforcing mesh. Uses: Embedded in primary layer of base coat prior to additional mesh application.
358.20 Ultra High Impact Mesh, is an ultra high tensile strength 692 g/m² glass fiber mesh. Uses: Embedded in primary layer of base coat prior to additional 355 Standard Mesh application to obtain ultra high impact protection as defined by EIMA.

**Primer**
Acrylic Primer provides color over the base coat prior to finish application. It improves the color consistency, trowelability and coverage of the finish.

**Finishes DPR Standard Swirl Coarse, Swirl Fine, Sand Coarse, Sand Fine, Sand Smooth, and Multi-Texture:** All of these finishes are 100% acrylic copolymer based, factory blended and integrally colored. They are applied over primed or unprimed base coat to provide a durable, decorative wall coating.

**OTHER MATERIALS AND TOOLS YOU WILL NEED**

**Insulation Board:** Ensure that the expanded polystyrene EPS insulation board used in the installation is 15 kg/cubic m. 600 mm X 1200 mm is listed for flame spread and smoke developed with a minimum thickness of 19mm. To test the EPS board, break a small piece in half and immediately smell. The board should not be used if there is a noticeable solvent odor. Mineral Wood Lamella for fire break: 100 mm strips, fibers perpendicular to wall, 140-150 kg/cubic m, same thickness as EPS

**Mechanical Fasteners:** Mechanical Fixings are specified for added security.

**Vented Track:** Exterior vented track designed to allow incidental moisture which may accumulate behind the system to exit. It should be used at terminations in lieu of traditional backwrapping technique.

**Portland Cement:** For 121 Base Coat & Adhesive, fresh and free of lumps.

**Water:** cool potable water.

**Mixing Equipment:** Use a 13mm chuck size power drill with a 6-8 amp motor capable of turning at 400-500 rpm. The mixing paddle should be a stainless steel 2 wheel dispersal mixer or equal.

**Tools Common to the Plastering Trades**. Including, but not limited to: a hawk, scoop, stainless steel trowels, plastic floats, rasping boards, margin trowels, corner trowels, groove tools and notched trowels for adhesive application.

**Other Tools:** Utility knife, tape measure, paint rollers and tray (for primer), weight scale, extra buckets, electrical cords, EPS saw, drop cloths, masking tape, etc.

**PRODUCT STORAGE**
- Generally, store all Parex products in a clean, dry environment, protected from sunlight. Protect all pail goods from freezing. Freezing can cause product damage. See product data sheets for specific storage instructions.
- **Shelf Life:** see product data sheets for specific shelf life information.
- Store EPS and tracks flat. Standing on end could cause these materials to warp.
- Store EPS away from sources of flame or high heat.
  **Warning:** EPS is combustible and can ignite and burn if exposed to fire of sufficient heat and intensity.
- Store Parex reinforcing mesh in the shipping container in order to keep it clean and protected.
2. GENERAL INSTALLATION REQUIREMENTS

These requirements are essential to good exterior insulation finish system (EIFS) practice. Failure to follow these requirements could lead to problems with the installation or ultimately, to system failure. Follow the requirements of the Product Data Sheets for each Parex product used.

Environmental Requirements

- Parex products should only be used when the air in which they are applied is at 4°C or higher during application and drying/curing.
- Do not apply Parex products to substrates which have a surface temperature of 4°C or lower.

Note: Because Parex Base Coats & Adhesives, Finishes and Coatings are water based acrylic products, it is essential that the above requirements be followed. Humidity, wind, cold, heat, rain, etc., can all affect workability and drying of the coatings. As conditions warrant, tenting and/or tarping with supplemental heat might be necessary to maintain these requirements.

Substrate Requirements

Verify that the substrate:

- Is of a type approved by Parex Lahabra.
- Is sound showing no signs of deterioration.
- Is correctly applied
- Is free of any crumbling or looseness of surface.
- Has no gaps or voids other than what is necessary for proper installation.
- Has no projections or planar irregularities greater than 6 mm in a 1.2 m radius.
- Is dry and is clean of any foreign materials such as oil, dust, dirt, form release agents, paints, wax, water, frost, etc.

Application Coordination Requirements

- Ensure that the installation of the system is being coordinated with other trades on the project.
- Many flashings must be installed prior to other construction components such as windows, louvers, doors, roof intersections, deck headers.
- Make sure details needed prior to application of EIFS are acceptable and in place.
- Provide appropriate protection/covering for adjacent construction materials that are likely to be soiled by the application process.
- Employ sufficient manpower to ensure a continuous coating application free of cold joints, scaffold staging shadows and texture variations.
- Have scaffolding and other necessary equipment in place prior to the installation.
- Have access to electricity for power tools.

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 system. 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. Be sure to review critical detail areas of the project. It is certainly easier for all parties concerned if problems are addressed "up front" rather than when they present themselves in the installation process.

Starting and Stopping the System

Evaluate the installation - The following are some critical details.

1. Window and door perimeters.
2. Tops of walls (roof line).
3. Bottom of walls (grade or pavement).
4. Penetrations (scuppers, fixtures, outlets, signage, etc.).
5. Aesthetic features.
7. Abutments to Dissimilar Materials.
8. Gable Roof/Wall Intersection.
10. Roofing.

- Have access to cool, clean water of drinking quality at the area where system materials will be mixed.
- Determine who will be responsible for installing the sealant.
3. APPLICATION OF THE STANDARD SYSTEM
Substrates allowed are masonry and concrete.

Backwrapping
Backwrapping is the traditional method of encapsulating the insulation board edge. Backwrapping simply means that the insulation board edge is completely wrapped in mesh reinforced base coat, and that the mesh continues in back of the insulation board edge.

First determine the starting point on the wall. Then snap a straight, level chalk line. To begin backwrapping, install Parex 23.5 cm wide 356 Detail Mesh lengthwise along chalk line so that a minimum of 6.5 cm of the mesh will be behind the insulation board. The detail mesh can be installed by using Parex Adhesives.

Special care should be taken to ensure that the exposed ends of the backwrapping mesh do not become covered with adhesive materials. (Fig 4.1) Adhesive on the exposed ends will prevent proper embedding of the mesh at the board edge and face when the backwrapping procedure is completed later.

Track is used in many locations as an alternative to backwrapping. Although it cannot be used in every situation, it provides a factory formed termination, and is a welcomed time-saving accessory to applicators. (Fig 4.2)

Installing Track
Like backwrapping, Track is installed along a level line. Attach the track to the substrate at 25-30 cm intervals along its length (Fig 4.3). On masonry substrates, attach the track with corrosion resistant masonry fixings. Install 15 cm splice angles into tracks at track end abutments.

Window Jamb Accessories
Install pre-compressed foam seals tight to window jambs. Embed accessory fiberglass mesh in base coat and overlap with Parex mesh. Apply second caulked seal to dry base coat. (Fig 4.4)
INSTALLING THE INSULATION BOARD
After the preliminary task of backwrapping or fastening track has been accomplished, you are now ready to adhere the EPS insulation board and mineral wool lamella to the substrate.

Starting and Stopping the System
At all system terminations, install either Track or 356 Detail Mesh for back-wrapping. Fasten Track every 25 to 30 cm and place track splice angles at track end abutments. When using 356 Detail Mesh, be sure to backwrap the mesh at least 70 mm behind insulation board.

Fire Breaks
Fire breaks are to be provided at every floor level except on 2 storey buildings and between the 1st and 2nd stories of 3 storey buildings. Provide fire breaks at all unit separation walls of multi-unit buildings.

Fire breaks are mineral wool lamella strips 100 mm wide in the same thickness as the adjoining EPS.
Applying EPS Insulation to Masonry Substrates
EPS board must not bridge expansion joints in masonry or concrete substrates. Instead, an expansion joint is placed in the standard system over the substrate joints.

Adhesive Application Trowels
Parex requires that these trowels be used with these products for optimum adhesive performance and coverages:

**Trowel Size:**
Parex (16 mm) notched trowel for masonry and concrete (Fig 5.3).

**Applying Adhesive to the Back of the EPS Insulation Board**
The first step is to ensure that the adhesive is compatible with the substrate. Using the correct sized notched trowel, the adhesive can now be applied to the insulation board. Apply the adhesive to the back-facing side of the insulation board so that when it is applied to the substrate, the notched trowel pattern runs consistently (Fig 5.4).

The notched pattern should cover the board face all the way to the board edges. To ensure sufficient bonding and coverages of the adhesive, EPS board should be visible in between the notches of adhesive. Adhesive should only be applied to the back-facing side of the insulation board. Remove any adhesive from EPS board edges. Adhesive between board edges can cause cracking.

**Installing the Insulation Board**
Prior to installing the insulation board it is important to assess all terminations of the system and ensure that back wrapping, edge wrapping, track or beads are used in these locations.

Slide and push the insulation boards into place on the wall using caution not to dent or damage the board. Insert insulation board (Fig 5.5) edges all the way into track. Apply firm, even pressure to the entire insulation board once it is in place. A rasping board is a useful tool to press with even pressure without damaging the insulation board. Install the insulation board in a running bond pattern, staggering vertical joints in successive courses.
Abut boards tightly at joints to produce a flush, continuously even surface with minimum gaps (Fig 5.5). Scrape excess adhesive off the edges of the boards (Fig 5.6).

Fill any gaps larger than 2 mm with slivers of insulation board (Fig 5.7). Adhesive should not be applied to the slivers. Continue installing the EPS boards horizontally, staggering the boards and overlapping the substrate joints.

Offset insulation board joints 200 mm or more from the corners of openings around doors, windows or other similar conditions (Fig 5.8). Plan the work so that the insulation board around the corner is cut from a single piece (Fig 5.9).

Insulation board joints should never align with opening corners. Leave a uniform 12 mm space between the edge of the EPS and the window, door, etc. when the system is terminated by backwrapping, so that backer rod and sealant can be installed later.

**Corners**

At all outside and inside corners always interlock or stagger the insulation board (Fig 5.10). Plumb all outside corners by snapping a chalk line. Level the EPS board to the chalk line by rasping. Maintain a minimum thickness of 19 mm of EPS. Remove all loose EPS particles from the wall surface.

**Installing Lamella**

Install continuous lamella strip fire breaks, vertical and horizontal, at each compartment floor and wall, including the second floor level of a three-storey single occupancy house. Apply continuous 121 Adhesive to the back of lamella to achieve a smoke barrier, and abut pieces tightly for the full perimeter of the building. Use lamella the full thickness of the EPS. (Fig 5.2)
Preparing for the Base Coat Application
Leveling the EPS and Mineral Wool

True wall surfaces by leveling insulation. Do not build up base coat thickness to true walls. Level the entire surface of the insulation board with either a rasping board or power rasper (Fig 6.1).

Lightly dampen mineral wool with water to improve rasping and control dust. Check the surface with a straight edge for high and low spots, leveling as necessary. Maintain a minimum thickness of 3/4 in. (19 mm) of EPS. Thoroughly remove loose particles from the surface of the insulation board.

Grooves or Reveals
Establish the locations of all aesthetic grooves or reveals, bands or other projections with a chalk line.

Aesthetic grooves or reveals can generally be cut with a router or hot knife. A minimum thickness of 19 mm of insulation board must be maintained in back of the groove (Fig 6.2). The bottom surface of any horizontal groove must be sloped min. 1 in 2 pitch.

MECHANICAL FIXINGS
The adhesive must dry so that the EPS board is secure on the wall before proceeding. Adhesive must dry a minimum of 24 hours, and in cool or damp weather, may require longer to dry. After adhesive has dried, install plastic fixings through insulation board at the rate of 4 per square metre of insulation. Later, after first mesh layer installation, additional stainless steel fixings will be installed (Fig 6.3).

Attaching EPS Aesthetic Trim
Parex 121 adhesive can be used to attach foam to foam.

Small EPS aesthetic trim not more than 100 mm thick by 300 mm wide can now be laminated over installed insulation board (Fig 6.4). Using either a 8 mm or 13 mm notched trowel, apply Parex Adhesive to the back of the trim feature as described earlier. Attach the trim piece to the face of the insulation board with firm and even pressure. In some cases it may be necessary to temporarily pin the trim into place with nails to give the adhesive time to set up. Alternatively, single or two-component foam polyurethane adhesive approved by ParexLahabra may be used to bond EPS to EPS. Remove temporary pinning after the adhesive has dried.
Larger EPS aesthetic trim should be attached directly to the substrate (Fig 6.5). Using the appropriate notched trowel for the adhesive specified, apply adhesive to the back-face of the trim feature as described earlier. Attach the trim piece directly to the substrate with firm and even pressure. If necessary corrosion resistant mechanical fixings may be used in conjunction with the appropriate Parex Adhesive to affix the feature temporarily or permanently (Please contact Parex Lahabra Technical Services for recommendations). Allow the adhesive to fully dry a minimum of 24 hours, or longer depending on conditions, before rasping and base coating aesthetic trim features.

**Backwrapping Mesh**

Check that EPS has all been leveled before proceeding. At this time, all terminations to be backwrapped should have free hanging detail mesh in place (Fig 6.6). To continue the backwrapping procedure, trowel the 121 base coat onto the exposed insulation board edge and face in an area wide enough to embed the width of backwrapped mesh. Embed the mesh into the fresh base coat with a stainless steel trowel. Corner trowels should be used to properly embed the returns.

**Meshing Corners**

The inside corners should be double-wrapped with reinforcing mesh. This can be done using one of two different methods: (1) Apply a primary layer of base coat wide enough to accommodate Parex 356 Short Detail Mesh. Embed the mesh into the fresh base coat, then apply the 355 Standard Mesh around the corners so there is a double layer of mesh (Fig 6.7).

(2) Another way to double mesh corners is to wrap and embed mesh in base coat around the corner from one side to the other side. Next duplicate this process coming from the other side. The double mesh should extend at least 20 cm from the corner in both directions. (Fig 6.8).

Outside corners can be meshed in a similar manner. For greater strength and a sharper line, use Parex 357 Corner Reinforcing Mesh. This heavy duty reinforcing mesh comes prefolded for ease of application. Standard mesh is then lapped over the corner mesh and extends at least 20 cm from the building corner.

A corner trowel should be used to smooth out the corner at its edge, forming a clean, straight line. If necessary, apply additional base coat materials to ensure that the mesh pattern is not visible.
**Meshing Aesthetic Grooves or Reveals**

The mesh-reinforced base coat must be continuous through these recessed features. To mesh the groove or reveal, apply a primary layer of base coat into the groove and over an area wide enough to embed the width of the detail mesh on either side (Fig 6.9).

Begin embedding the Parex 356 Detail Mesh into the groove using a tool fabricated in the profile of the feature (Fig 6.10). Do not cut the mesh during this process.

With a trowel, finish embedding the detail mesh on the sides of the groove (Fig 6.11). If the mesh pattern is still visible, apply additional base coat.

As alternative to detail mesh, factory pre-formed mesh profiles may be used. Embed them in 121 base coat the same as for detail mesh.

**Meshing Aesthetic Trim**

As a general rule, adhesives used in attaching aesthetic trim should be allowed to dry a minimum of 24 hours or longer, depending on conditions, before applying base coat.

Aesthetic trim features are prepared and base coated similar to the rest of the wall system. Base coat and embedded mesh should not only be applied to the feature, but should also lap not less than 70 mm onto the adjacent wall plane. Completely embed mesh in the fresh base coat. Apply additional base coat as necessary to completely cover the mesh.

Like aesthetic grooves and reveals, the area adjacent to the feature is overlapped with mesh reinforced base coat during the standard application procedure.

**Butterfly Reinforcements**

Apply “butterfly” corner reinforcing mesh diagonally at the corners of all openings such as doors, windows, recessed features, etc. Butterfly mesh is cut from 356 Detail Mesh to a length of 300 mm. Apply butterfly mesh at corners of bands around openings (Fig 6.12). The dimensions of the butterfly mesh may be reduced to fit the bands. The continuous wall mesh is applied either under or over butterfly mesh. As an alternative to “butterflies”, factory pre-formed corner-return mesh may be installed.
APPLYING BASE COATS

To begin this step, cut reinforcing mesh to workable lengths.

Mesh and Base Coat Application Procedure

All Parex Base Coats are applied to the face of the insulation board in the same manner.

First Base Coat and Mesh Layer

Using a stainless steel trowel, apply an even layer of base coat approximately 2 mm to 3 mm thick onto the surface of the insulation board in an area slightly larger than the width of the reinforcing mesh. Immediately embed Intermediate reinforcing mesh into the fresh base coat, trowelling it from the center and outward to its edges. (Fig 7.1)

This method keeps the mesh lying flat, ensuring consistent embedment into the base coat. In the event that any portion of the embedded mesh pattern is still visible, apply a second skim coat. (Fig 7.2)

The installation progresses by applying base coat similarly in areas adjacent to the previous application. Take care to overlap reinforcing mesh a minimum of 100 mm at all meeting ends and edges as the application progresses. To avoid a buildup of base coat that could be noticeable in the finished application, mesh end overlaps can be held 200 mm or more from corners.
Stainless Steel Fixings
Install stainless steel fixings at a rate of 1 per square metre through base coat, mesh, and insulation board. Install stainless steel fixings every 400 mm through base coat, mesh, and lamella. Seat stainless steel washers flush to the surface.

Base Coat Application over Track
Where ends of tracks meet, apply rectangular patches of mesh approximately 15 cm by 22 cm long, entered on the track joint, to provide a double layer of mesh at these locations (Fig 7.4).

Ensure that both the reinforcing mesh and the base coat overlap the entire perforated flange of Track used in the installation. This effectively closes off the insulation board edge, forming an aesthetically pleasing termination that protects the system from moisture penetration.

Warning: Failure to apply the reinforced base coat as outlined above could cause cracking and/or moisture penetration at these locations.

Examine the hardened first layer of base coat for projections of loose strands of reinforcing mesh. Correct as necessary to produce a flat working surface.

Stainless Steel Fixings
Install stainless steel washers and finxings through fiberglass, mesh and base coat spaced 400 mm on centre along fire breaks and at 1 per square metre through EPS. (Fig. 6.3)

The next step is to apply a second layer of base coat and to embed Parex 355 Standard Mesh. The 355 Standard Mesh joints must be offset a minimum of 15 cm from the joints of the previously installed intermediate mesh. Standard and intermediate mesh ends and edges should never align.

Second Base Coat and Mesh Layer
Apply base coat approximately 2 mm thick over the entire wall face, working in areas slightly larger than the width of Standard Mesh. Embed Standard Mesh in base coat by trowelling over it, working from the center out. Position Standard Mesh edges a minimum of 300 mm away from overlaps in Intermediate Mesh to avoid excessive buildup of thickness and humps in the base coat. Overlap edges of Standard Mesh 70 mm. Trowel Base Coat to a smooth, uniform layer, with no mesh color visible.

Exception
Apply Intermediate Mesh as the second layer from the base line up 2 to 3 metres for additional impact resistance. Butt edges instead of lapping them. Trowel on additional base coat and embed Standard Mesh as a third layer. Lap edges of Standard Mesh 70 mm. Trowel base coat to a smooth uniform layer, with no mesh color visible.
Avoid excess thickness. Excess thickness causes cracking.

Final Appearance of Base Coat Application

The base coat application should be smooth, approximately 6 mm thick, and free of trowel lines with no visible color signs of the reinforcing mesh. Allow a minimum drying time of 24 hours or longer depending on conditions, before applying additional Parex coatings. This allows the base coat to form a positive bond.

Cill Flashing

Cill flashing may then optionally be installed prior to finish coat because finish may be omitted from under the cill flashing. Do not block weeps in window frames. Provide a water-tight seal between the cill flashing the window frame. Seal cill flashing fixings water-tight where they penetrate the cill flashing. Seal cill flashing ends to base coat on jamb returns. (Fig. 7.5)
FINISH APPLICATION
Before the application of the finish, the base coat must have cured a minimum of 24 hours or longer as required by conditions. Examine the cured base coat for any irregularities. Correct these irregularities to produce a flat surface. Review environmental and application coordination sections of the General Requirements. Work on the shaded side of the building whenever possible.

Sealant Locations
Do not apply Acrylic Primer on Finishes to areas that will have sealant applied. Sealants bond best to base coat. Either apply sealants before primer and finish, or mask areas for later sealant application. Remove masking before finishes dry.

Parex Acrylic Primer
Parex primer is applied to minimize cementitious base coat water absorption and the risk of efflorescence, and to provide consistent color under the finish. It also eases the trowelability floating characteristics of the finish, and will improve the coverage of the finish.

Mixing and Applying Primer
Mix the primer thoroughly with the appropriate mixer and adjust consistency for ease of application. Apply the primer by either rolling or spraying. The primer does not have to look like a professional paint job, but it should cover the base coat. When cutting-in with a brush around edges of the system do not allow a buildup of primer. If a buildup is present it will produce a visible and unsightly difference in the finish applied over it.

Parex Finishes
Parex offers a variety of different finishes in a wide range of colors that can accommodate a variety of texturing techniques. Each finish is acrylic polymer based, pre-mixed, and tinted for the requirements of any project. The Parex Swirl Fine is our most popular finish. Swirl Fine and Swirl Coarse are applied with a stainless steel trowel and textured with a hard plastic float. Parex Multi-Texture Finish is a high-build product that can be applied using various application techniques. Parex Sand Fine and Sand Coarse are applied using a stainless steel trowel and textured with the same trowel or a plastic float. The Sand Fine Finish is less forgiving on irregular substrates. Use extra care on the base coat to control consistency of the texture. Using the appropriate spray equipment and techniques, all Parex finishes can be sprayed to achieve a wide variety of textures.

The Parex Sand Smooth Finish cannot generally be floated. Texture will be "as-trowelled". For the 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 dry, trowel to desired smoothness. Light, consistent misting with water during smoothing will increase smoothness. Variations in color tint and smoothness should be expected.
Mixing Parex Finishes

Stir to obtain a homogenous consistency using a heavy duty 13 mm drill with a rust free 2 wheel Jiffler dispersal mixer or equal at 400-500 RPM (Fig 9.2). Avoid air entrapment.

To adjust workability, small amounts of cool, clean, potable water may be added as necessary. Do not exceed 1/2 L per full pail of finish. If water is added be sure that the same amount is added to each subsequent pail used. This ensures color and texture consistency.

Use single batch numbers of finish within a wall area defined by corners. Batch numbers are marked on the pail. If changing batches within a wall is unavoidable, then intermix batches to ensure consistent product. (Fig 9.3).

Assessing the Finish Application

In assessing the finish application, keep in mind that the material must be applied continuously for best results. When possible, plan the day’s work to best take advantage of terminations in the wall plane. For example: work between columns, aesthetic joints, expansion joints, corners, etc. For larger areas sufficient manpower must be assembled to ensure an application free of cold joints and staging lines (Fig 9.4).

Direct sunlight, wind, temperature and humidity can all have an effect on the workability and drying time of Parex finishes. When possible, work the shady side of the building or tarp the scaffolding.

Fundamentals of Successfully Applying Finish

- Get samples approved and signed by the customer before the finish is made.
- Box finish from different batches.
- Run one batch of finish from corner to corner.
- Avoid application in direct sunlight.
- Always work to a wet edge.
- Have sufficient manpower to work a job.
- Stop work at a termination point.
Applying Parex Finishes
Use the same tools and techniques to apply and texture the finish as used for the approved samples.

Apply Parex finishes with a clean stainless steel trowel (Fig 9.5). The thickness of the finish application should equal the size of the product’s aggregate. Multi-Texture Finish can be applied up to 6 mm thick at thickest part of a texture pattern, but its average thickness is limited to 3 mm maximum.

Do not apply finishes on or in areas to receive sealant.

To ensure that the application remains consistent, a “wet edge” must be maintained at all times between termination breaks in the wall area (Fig 9.6).

Texturing Finish
Parex Swirl Fine and Swirl Coarse can be textured using a hard plastic float in a uniform circular or figure eight motion (Fig 9.7). To ensure consistency in the application, all applicators should use the same motion.

During texturing, continuously remove any buildup of finish on the plastic float. For best results, two passes with the plastic float are recommended. **Warning:** Do not wet or clean the float with water while texturing. The additional water from the float may result in a visible color difference when the finish application has dried.

Parex Multi-Texture Finish can be applied and textured much like other plaster type materials. Using traditional plastering methods use Multi-Texture to create skip trowel or stipple effects. **Remember** . . . Multi-Texture Finish should not exceed 6 mm at its thickest point and should average no more than 3 mm thick.

Parex Sand Fine and Sand Coarse Finish are used to achieve a relatively uniform texture. Apply, then texture these finishes with a stainless steel trowel using the same guidelines mentioned for Swirl Fine and Swirl Coarse Finish.
PROTECTING THE SYSTEM AFTER INSTALLATION

- Plan and have ready for immediate use any protective measures required.
- Immediately after installation protect the Parex System from weather and other damage until all sealants and flashings have been installed.
- After the application of the base coat & adhesives and finishes, the ambient air temperature must remain at 4°C or higher for a minimum of 24 hours, or until the coatings are completely dry, which may take several days in high humidity and/or cool weather.

Although it may not be outwardly apparent, freshly applied coatings that seem hard and dry on the surface often require protective measures to ensure their proper cure through their entire thickness. Take protective measures, especially if freezing temperatures, rain, snow or other damaging weather conditions are likely.

Temperatures below 4°C can prevent the proper curing of Parex coatings by slowing down or stopping the film formation of the acrylic polymers. Damage from cold conditions often remains undetectable in the short term, but shows up much later as the coatings crack, become crumbly, or delaminate.

Like excessive cold, precipitation can affect the proper curing of coatings, but its results can be dramatically fast. A sudden downpour can wash fresh uncured coatings directly off a wall.

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

**Flashings and Sealants**

EIF systems, like other weather-protective wall materials, rely on flashings and sealants to prevent moisture entry behind the materials. Moisture behind the system can lead to damage to interior of the wall. On moisture sensitive substrates, moisture can cause delamination of the system or loss of substrate attachment.
More About Sealants

Sealants, provide two vital functions: (1) They effectively seal joints between abutting materials against the weather; and (2) they absorb thermal expansion and contraction. In general, sealant joints are constructed similar to Fig 10.1 ParexLahabra requires the surface of the system which will receive the sealant to be either mesh-reinforced base coat or track. Do not return finish into the joints or other areas to receive sealant. Sealants are applied in strict conformance with the sealant manufacturer’s recommendation.

Because of the wide variety of surface materials and conditions, check with the sealant manufacturer to ensure compatibility of the sealants to the surface(s) to which they will be applied. Special surface preparation or primers may be necessary. **Note: Parex Base Coats must be thoroughly dry before sealants can be applied.** Parex Cementitious Base Coats require a minimum drying time of three days and longer during conditions of cool temperatures or high humidity; Parex Base Coat and Parex Finishes may require further drying time.
APPLICATOR INSTALLATION CHECKLIST FOR THE PAREX STANDARD SYSTEM

Project Name: __________________________________________________________________________________________________________

Location: ________________________________________________________________________________________________________________

Street Address  City

Builder: ________________________________________________________________________________________________________________

Installing Applicator: ____________________________________________________________________________________________________

Please explain any "NO" or "N/A" (not applicable) on separate page.

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO (EXPLAIN)</th>
<th>N/A (EXPLAIN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td>☐</td>
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<tr>
<td>2.</td>
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<td>3.</td>
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<td>4.</td>
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<td>5.</td>
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<td>6.</td>
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<td>7.</td>
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<td>8.</td>
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<tr>
<td>9.</td>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td>YES</td>
<td>NO (EXPLAIN)</td>
<td>N/A (EXPLAIN)</td>
</tr>
<tr>
<td>---</td>
<td>-----</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>10. Insulation exposed edges covered with base coat and mesh or track?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Gaps in insulation greater than 2 mm filled with foam slivers?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. EPS installed in a staggered, running bond, its joints offset from the sheathing joints by required distance?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 13. EPS board joints "L" cut of corners of wall openings?  
   (EPS board joints offset 8" (203mm) minimum from corners of openings) |   |   |   |
| 14. Total surface of insulation rasped? |   |   |   |
| 15. Minimum 19mm insulation at all points including in reveals, after rasping? |   |   |   |
| 16. Double base coat and mesh applied? |   |   |   |
| 17. Intermediate mesh overlapped minimum 100 mm? |   |   |   |
| 18. Standard mesh overlapped minimum 70 mm?  
   Reinforcing mesh installed so mesh color is not visible? |   |   |   |
| 19. Minimum 6:12 slope on all exposed features, including bands quoins, keystones, etc. |   |   |   |
| 20. Window flashings - sills?  
   - - heads? |   |   |   |
| 21. Double layer Intermediate impact mesh installed 2-3 metres up from base line? |   |   |   |

**COMMENTS:**

Parex Standard System has been properly installed on the above listed project. Failure to perform the items listed on this checklist are the responsibility of the installing applicator.

Signed: ___________________________________________ Date: ______________

Applicator
## PRODUCT APPROXIMATE COVERAGE

### Acrylic Finishes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Pail Quantity</th>
<th>Coverage</th>
<th>Pallet Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>530</td>
<td>Swirl Fine - 1.5mm Aggregate</td>
<td>29.5 kg.</td>
<td>11.1-12.5 m²</td>
<td>36 pails/pallet</td>
</tr>
<tr>
<td>531</td>
<td>Swirl Coarse - 3mm Aggregate</td>
<td>29.5 kg.</td>
<td>11.1-12.5 m²</td>
<td>36 pails/pallet</td>
</tr>
<tr>
<td>532</td>
<td>Multi-Texture - 0.75mm Aggregate</td>
<td>29.5 kg.</td>
<td>11.1-12.5 m²</td>
<td>36 pails/pallet</td>
</tr>
<tr>
<td>533</td>
<td>Sand Smooth - 0.5mm Aggregate</td>
<td>29.5 kg.</td>
<td>11.1-12.5 m²</td>
<td>36 pails/pallet</td>
</tr>
<tr>
<td>534</td>
<td>Sand Fine - 1mm Aggregate</td>
<td>29.5 kg.</td>
<td>11.1-12.5 m²</td>
<td>36 pails/pallet</td>
</tr>
<tr>
<td>535</td>
<td>Sand Coarse - 1.5mm Aggregate</td>
<td>29.5 kg.</td>
<td>11.1-12.5 m²</td>
<td>36 pails/pallet</td>
</tr>
<tr>
<td>536</td>
<td>Sand Stone - 1mm Aggregate</td>
<td>29.5 kg.</td>
<td>11.1-12.5 m²</td>
<td>36 pails/pallet</td>
</tr>
</tbody>
</table>

### Meshes

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Roll Quantity</th>
<th>Coverage</th>
<th>Pallet Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>355</td>
<td>Standard Mesh 96.5 cm x 45.7 m (4 rolls/box)</td>
<td>6.8 kg.</td>
<td>44.1 m²</td>
<td>12 boxes/pallet</td>
</tr>
<tr>
<td>355.48</td>
<td>Long Standard Mesh - 121.9 cm x 45.7 m (4 rolls/box)</td>
<td>10.4 kg.</td>
<td>55.7 m²</td>
<td>9 boxes/pallet</td>
</tr>
<tr>
<td>356</td>
<td>Short Detail Mesh - 23.5 cm x 45.7 m (16 rolls/box)</td>
<td>1.8 kg.</td>
<td>13.9 m²</td>
<td>9 boxes/pallet</td>
</tr>
<tr>
<td>357</td>
<td>Corner Mesh - Prebent, heavy-duty, 23.5 cm x 50 m (4 rolls/box)</td>
<td>3.6 kg.</td>
<td>13.9 m²</td>
<td>25 boxes/pallet</td>
</tr>
<tr>
<td>358.10</td>
<td>354.8 ml Mesh - Intermediate Impact, 96.5 cm x 22.8 m (4 rolls/box)</td>
<td>9 kg.</td>
<td>22.0 m²</td>
<td>9 boxes/pallet</td>
</tr>
<tr>
<td>358.20</td>
<td>591.4 ml Mesh - Ultra High Impact, 96.5 cm x 22.8 m (2 rolls/box)</td>
<td>16.3 kg.</td>
<td>23.0 m²</td>
<td>9 boxes/pallet</td>
</tr>
</tbody>
</table>

### Adhesives & Base Coats

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Pail Quantity</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>121</td>
<td>Wet Base Coat/Adhesive</td>
<td>25 kg.</td>
<td>Adh. 16-17 m²</td>
</tr>
</tbody>
</table>

### Conditioners & Primers

<table>
<thead>
<tr>
<th>Description</th>
<th>Pail Quantity</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylic Primer</td>
<td>18.9 Liters</td>
<td>92.9 m²</td>
</tr>
</tbody>
</table>

The approximate coverages of these materials are for estimating purposes only. The coverages listed may vary due to textures, wastes, substrates, and application techniques and conditions.