

PAREXUSA

Masonry Veneer Systems (MVS)

Application Guide



Always use the latest version of the ParexUSA Application Guide. This guide focuses on the application techniques for ParexUSA Masonry Veneer Systems.

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HOW TO USE THIS GUIDE

This guide focuses on the installation of the ParexUSA MVS 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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Preparation for MVS

MVS can be applied to several substrates;

1. ParexUSA Continuous Insulation System (MVS-CI)
2. ParexUSA Stucco (MVS- Standard)
3. Cement Board (MVS-CB)
4. Concrete Masonry Unit (MVS-CMU)

Each substrate has specific requirements and more information may be need by applicator. The substrate construction must be designed to limit transverse deflection to $l/360$ of the span under design wind loads. Note: MVS system does not contribute structural strength to the wall. Refer to the appropriate section below.

1) Masonry Veneer System Over Continuous Insulation (MVS-CI)

Follow application instructions given in the ParexUSA CI Application Guide (<http://www.parex.com/literature/PUSAEIFSAPG.pdf>) with the following changes.

1. ParexUSA Masonry Veneer EPS Basecoat and Adhesive: 100% acrylic polymer based, requiring the addition of portland cement; used as an adhesive to laminate EPS Insulation Board to either the ParexUSA WeatherSeal Spray & Roll-on or ParexUSA WeatherSeal Trowel-On. **WARNING: NEVER SUBSTITUTE ANY OTHER ADHESIVE.**
2. ParexUSA Masonry Veneer EPS Base Coat and Adhesive: 100% acrylic polymer based, requiring the addition of Portland cement; used as a base coat over EPS foam to embed reinforcement mesh. **WARNING: NEVER SUBSTITUTE ANY OTHER BASE COAT.**
3. ParexUSA Reinforcing Mesh for embedment in base coat:
 - a. For combustible (Type V) construction: Use ParexUSA 355 Standard Mesh: Weight 4.5 oz. per sq. yd. coated for protection against alkali.
 - b. For noncombustible construction (Type I, II, III, and IV): Use ParexUSA 358.10 Intermediate Impact Mesh: Weight 12 oz. per sq. yd. coated for protection against alkali.
4. Mechanical fasteners and Washers: Install corrosion resistant screws with 1 ¼ in. diameter 26ga. G90 or Galvalume washers through the dry basecoat and mesh application and into the framing at a maximum spacing, along vertical framing members, of 36 inches on center and within 4 and 6 inches of wall tops.

2) Masonry Veneer System over Stucco (MVS-Standard)

Follow application instructions given in the ParexUSA Stucco Application Guide for Armourwall 100 or 300 WaterMaster System (<http://www.parex.com/literature/PAWAPP.pdf>) with the following changes.

1. Stucco Admix (Required) ParexUSA Adacryl Admix & Bonding Agent must be mixed into the stucco brown coat.
 - a. Mix up to 1 gallon of Adacryl per 1 bag of ParexUSA family of brands stucco base coat concentrate.
 - b. Mix up to 1 quart of Adacryl per bag of ParexUSA family of brands stucco base coat sanded.

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- c. Add after dry components and most of the water has been mixed. Mix no longer than required to provide a uniform mixture. DO NOT OVER-MIX. Overmixing entrains excessive amounts of air which weaken the material. Do not re-temper mixes over 20 minutes old.
2. Apply 2 liberal coats of ParexUSA WeatherBlock over the entire field of the Stucco Base Coat.

3) Masonry Veneer System over Cement Board (MVS-CB)

Follow all applicable ANSI A108 and other TCNA guidelines for installation of stone and tile on the exterior of a building.

1. On top of the approved sheathing against the studs, apply a layer of ParexUSA WeatherSeal Spray and Roll-on before installing the cement board.
2. Embed the cement board manufacturer's specified fiberglass joint tape in ParexUSA Masonry Veneer Adhesive at all cement board joints other than through the wall expansion joints.
3. Pre-fill all gaps up to ½" between items penetrating the cement board or masonry veneer adhesive with ParexUSA WeatherFlash. Correct larger gaps in sheathing or plaster.
4. Apply a liberal coat of ParexUSA WeatherBlock around joints, cracks and protrusions.
5. ParexUSA WeatherBlock must be applied to the face of the cement board in two coats.

4) Masonry Veneer System Over Concrete Masonry Unit (MVS-CMU)

Before installing Veneer stone, thin brick or tile to CMU the following areas need to be addressed.

1. (Optional Level Coat) Skim the surface of the concrete / concrete masonry with a cementitious skim coat of ParexUSA Masonry Veneer Adhesive to level the surface before the application of the waterproofing membrane.
2. Install ParexUSA WeatherBlock waterproof membrane over the CMU in the areas that will receive the veneer units.
3. ParexUSA WeatherBlock must not be applied unsupported to bridge across expansion joints. The joint must be cleaned to remove loose debris and an opened or closed – cell backer rod is installed to the joint to the proper depth as specified by the designer.

Installing the Stone or Thin Brick Veneer

1. Stone or Brick can be installed immediately after the WeatherBlock has completed dried to touch. If the membrane has been exposed for more than 30 days, contact ParexUSA Technical Support at 1-800-226-2424. The surface must be clean of all dirt and contaminants before the application of the Veneer
2. Manufactured stone masonry veneer units shall comply with the applicable requirements of ICC Evaluation Service Acceptance Criteria AC51.
3. Maximum Weight for the Veneer unit is 12 pounds per square foot (49 kg/m²) with no single unit greater than 20 pounds (9 kg)
4. Ensure complete coverage of ParexUSA Masonry Veneer Adhesive between the base or brown coat and the back side of the thin veneer units.
5. Thin brick form veneer units: Allowing for a mortar joint of 3/8"–1/2", calculate and mark off the number of courses required. Adjust joint size to minimize horizontal cutting. Run level guide lines to ensure proper placement of bricks. Mix brick from several boxes at a time to achieve a pleasing blend of color and texture.
6. Stone form veneer units: Install in accordance with the veneer unit manufacturers pattern as specified with ParexUSA Thin Veneer Adhesive. Set units with the veneer manufacturer's specified nominal joint width.
7. For thin brick form veneer units, spread adhesive in a continuous layer nominally 3/16 to 1/4 in. thick and press firmly into place on the Base or Brown Coat
8. For stone form veneer units, skim the Base or Brown Coat with Masonry Veneer Adhesive covering small areas onto which the stones can be placed while the Adhesive surface is still wet and tacky.
9. Apply Masonry Veneer Adhesive to the backs of stone form units in a continuous layer thick enough to provide gap-free contact with the wet skim coat of Adhesive, typically 1/4" to 3/8 in. (6 mm to 9 mm) thick. Fit veneer units around corners, fitments, fixtures, drains and other built-in objects to maintain uniform joint appearance.
10. Make cut edges smooth, even and free from chipping. Do not split veneer units.
11. Expansion and Perimeter Joints: Install the veneer units up to the joint leaving a gap the width of the wall joint. Keep all control and expansion joints free of setting materials.
12. Curing time of veneer adhesive: 72 hours before grouting when the temperature is low or the humidity is high. 24 hours before grouting when hot, dry conditions exist. Check the bond strength carefully before grouting.

Grouting

Verify grout joints are free of dirt, debris or tile spacers. Sponge or wipe dust/dirt off veneer face and remove any water standing in joints. Surface and air temperature must be between 40-90°F (4-32°C). Keep grouting mortar out of spaces to receive sealants. Fill joints using a grout bag, mortar gun or other mortar delivery device. When thumbprint hard, rake out excess mortar, compact and seal edges around stones. A wet brush or sponge should never be used to treat the mortar joints as this will cause staining that will be difficult or impossible to remove. As soon as grouting mortar has hardened, brush off excess grout from veneer unit's edges and faces with a stiff non-metallic brush. Do not use acid cleaners.

PROTECTING THE SYSTEM AFTER INSTALLATION

Plan and have ready for immediate use any protective measures required. Immediately after installation protect the ParexUSA System from weather and other damage until all sealants and flashings have been installed. After the application of the basecoat & adhesives, the ambient air temperature must remain at 40°F (4°C) or higher for a minimum of 24 hours, or until completely dry, which may take several days in high humidity and/or cool weather. Take protective measures, especially if freezing temperatures, rain, snow or other damaging weather conditions are likely. 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

ParexUSA 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 the 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
2. They absorb thermal expansion and contraction. 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: ParexUSA Basecoats and Masonry Veneer Adhesive must be thoroughly dry before sealants can be applied. ParexUSA Cementitious products require a minimum drying time of three days and longer during conditions of cool temperatures or high humidity.