



INNOVATIONS FOR LIVING™

WeatherProtectR® Foundation Waterproofing System

Application Guidelines

Description

The Owens Corning WeatherProtectR Foundation Waterproofing System is designed to provide a water tight* barrier on the foundation walls from the footer to the grade level. The system consists of three materials. First, WeatherProtectR P, a water based primer used to prepare the surface for optimum bonding; second, WeatherProtectR, the peel and stick membrane that is the primary waterproofing barrier; and third, WeatherProtectR M, a high performance mastic used to seal around the membrane edges and at penetrations.

Storage

All WeatherProtectR system materials shall be transported and stored so that they are protected from physical damage due to handling and the exposure to the weather. Store all materials upright, away from moisture, sparks or flames, in a dry, well ventilated area. Store materials where the ambient temperature is between 40°F (5°C) and 90°F (30°C).

Safety and Handling

Vapors emitted by the primer, membrane, or mastic may be irritating to some people. Therefore, all system components must be handled properly. Read the safety and handling instructions thoroughly prior to installing any product. Safety and

handling instructions for each product are provided on the product label and data sheets. Detailed product information, contained in each product's Material Safety Data Sheet, is available from Owens Corning, upon request.

Compatibility

The interaction between some rubber modified asphalts and commonly used building materials, e.g. plasticized sealants, creosote, coal tar, EPDM, and plasticized/flexible PVC, may reduce the effectiveness of the seal. The installer shall verify the compatibility of the WeatherProtectR system materials with all substrate materials used in connection with the application.

Foundation Drainage

(Figure 1)

Perimeter foundation drainage is necessary to obtain optimum performance for any waterproofing system. Any foundation design must contain drainage at the footer level. The footer drainpipe shall be installed in a prepared gravel layer and be sloped to a collection point at a sump to provide for complete water removal around structure foundation.

Surface Preparation

Standard structural concrete must be cured for a minimum of 7 days prior to application of the WeatherProtectR Primer. Lightweight structural concrete must be cured for a minimum of 14 days. Remove pouring forms as soon as possible as they hold moisture in the concrete. Use

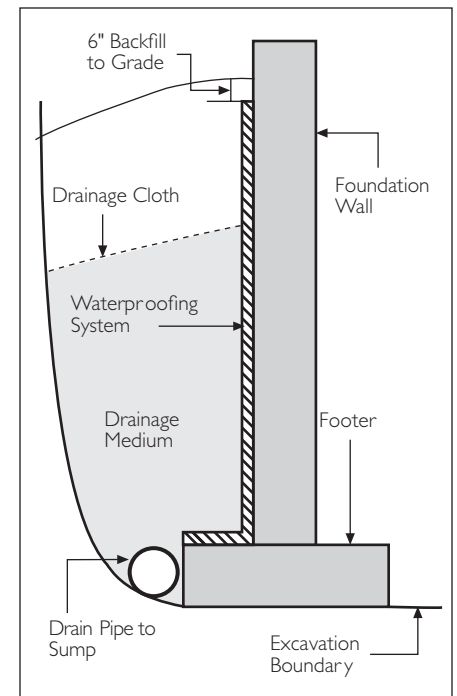


Figure 1 – Basic Waterproofed Foundation System Layout

form release agents that will not transfer to the concrete. When installing the WeatherProtectR system, the surface to be covered must be structurally sound, smooth, dry, and free of contaminants, spalled areas, loose aggregate and sharp protrusions. Repair any surface defects. Remove sharp protrusions and form match lines. Strike off masonry joints flush with the surface. If walls are rough, use a well-adhered parget coat to obtain a smooth surface.

Application Temperature

Foundation surfaces must be clean, dry, and frost free. Apply the WeatherProtectR system components only in fair weather when the ambient and substrate temperatures are above 40°F (5°C).

*Note: Since WeatherProtectR is a system, no component substitutions are permitted. In the same fashion, the proper installation of the system is also critical. Any variance in installation from the instructions below might also compromise the integrity of the system and thus reduce its performance. The installation process includes any steps taken from receipt of the materials at the job site to final inspection and backfilling.

Application Guidelines

Priming

WeatherProtectR P Primer is required on all foundation surfaces, including foam, where the *WeatherProtectR* system materials are to be applied. Apply primer using a brush or wool roller. Prime only the areas that can be covered with the membrane in same working day. Contaminated areas must be re-primed prior to installing the membrane. Metal surfaces do not require priming but must be clean, dry and free of loose paint, rust or other contaminants. Allow the primer to dry completely before installing the membrane.

Footer Wall Interface

(Figure 2)

At each corner, apply a 12" (300mm) L-shaped piece of *WeatherProtectR* membrane to the top of the footer so that each leg of the L is adjacent to a foundation wall. Next, apply a 9" (250mm) wide strip of *WeatherProtectR* Membrane centered over the horizontal joint between the wall and footer. Continue this process until this joint is sealed all around the foundation. All ends must overlap the adjacent membrane by at least 4" (100mm). Roll the membrane completely and firmly, as soon as possible, working from the center toward the edges.

Corner Details

(Figure 3)

Outside corners must be free of sharp edges. Inside corners should be smooth and plumb. Install an 18" (450mm) strip of *WeatherProtectR* Water Resistant Membrane, centered over the

corner, from the footer to the final installed height. The final height is 6" below the finish grade elevation. Press into place, working from the corner outward. When installing the rest of the *WeatherProtectR* Water Resistant Membrane, align the edge of the overlapping layer with the corner.

Protrusions and Penetrations

(Figure 4)

Install the membrane sheet on the walls as instructed below by cutting a hole in the sheet to accommodate the penetration. After the primary sheet is installed, center and apply a square piece of *WeatherProtectR* Water Resistant Membrane around the penetration. The hole should be cut in a star pattern such that the material from the hole surrounds the penetration. The square piece should extend beyond protrusion at least 6" (150mm) in all directions. Seal the membrane against the penetration wall and seal the entire junction with *WeatherProtectR* M mastic. Significant protrusions should be covered with a second continuous sheet. Seal around the edges of the second sheet with mastic.

General Wall Installation

The *WeatherProtectR* Water Resistant membrane is installed so that it covers the horizontal surface of the footing and the vertical surface of the foundation wall to within 6" (250mm) of the expected grade line after back filling. The *WeatherProtectR* membrane can be installed in either a horizontal or vertical

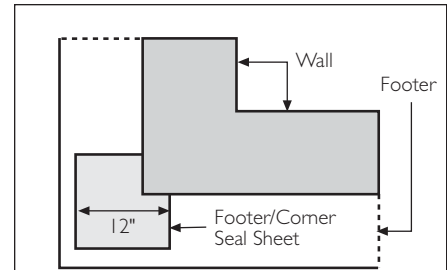


Figure 2A – Corner/Footer Seal Sheet

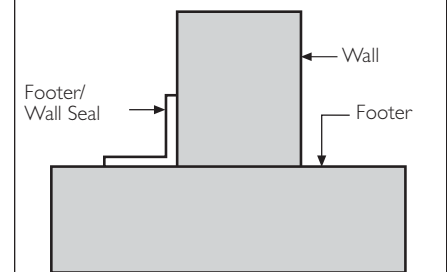


Figure 2B – Footer/Wall Interface Seal

Figure 2 – Footer Wall Interface

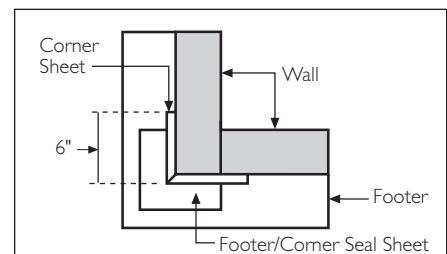


Figure 3A – Corner Sheet Installation, From footer to 6" from grade

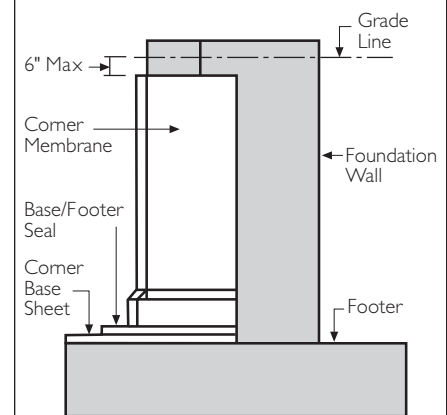


Figure 3B – Outside Corner Sealing, Detail at the footer

Figure 3 – Corner Details

Application Guidelines

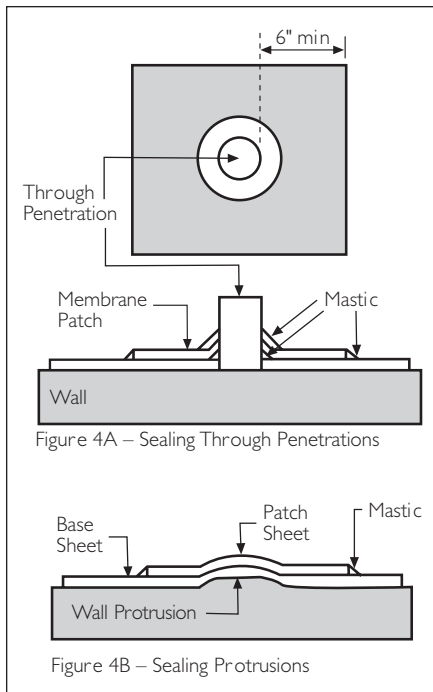


Figure 4 – Penetrations and Pultrusions

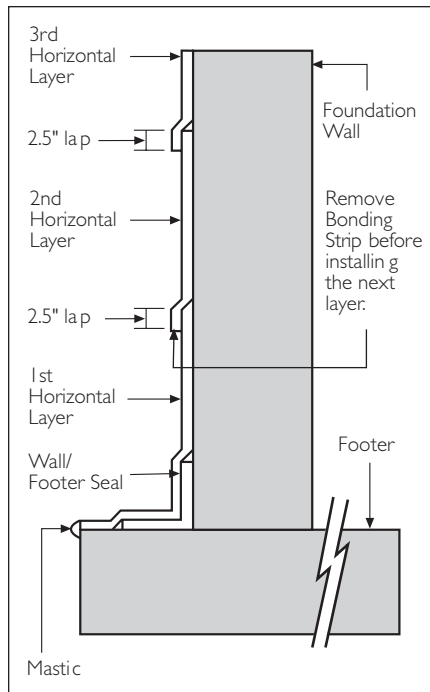


Figure 1 – Horizontal Lap Installation, Edge View

needed, using the same technique until the entire foundation is covered. All vertical seams are to be overlapped a minimum of 2.5" (64mm). On successive vertical courses, first remove the silicon coated side release tape from the edge of the adhered membrane being lapped. Then align the edge of the membrane being installed so it just covers the surface exposed in the previous step. After removing the membrane's release paper, install this membrane as before. This process will ensure uniform lap width and adhesion. Roll membrane into place with hand roller. After all the membrane is installed, complete the finishing outlined in C below.

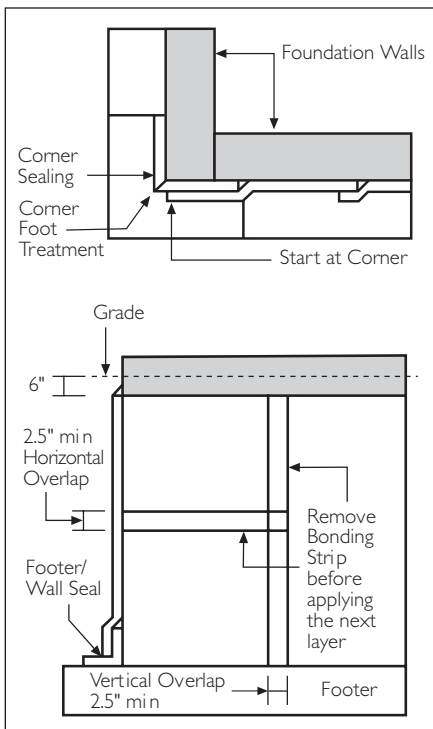


Figure 5 – Vertical Lap Installation

pattern. To insure the best installation, the overlapping and sealing criterion are equal for both systems. Choose the installation pattern to be used and follow the instructions below.

A. Vertical Pattern Installation (Figure 5)

Beginning at a corner, apply a full width of WeatherProtectR Water Resistant Membrane by starting at the vertical edge of the footing and working upward, using the corner edge as a guide, toward the high point of the wall. Start by removing 6" (250mm) of the release paper and begin applying the membrane at the footer vertical edge. Press and smooth the membrane while removing additional release paper. Work with membrane lengths that are manageable. After the first vertical piece is completed, install additional vertical sheets, as

B. Horizontal Pattern Installation (Figure 6)

For horizontal application, the WeatherProtectR Water Resistant Membrane is installed in an overlapping, shingle fashion on the wall. Start by removing 6" (250mm) of the release paper and begin applying the membrane at the corner with the bottom edge of the membrane aligned with the footer vertical edge. Press and smooth the membrane while removing additional release paper. Continue to apply the membrane around the foundation wall until reaching the next corner. Work with membrane lengths that are manageable. After the first horizontal piece is installed, install additional horizontal sheets, as needed until the entire foundation is covered. All horizontal seams are to be overlapped a minimum of 2.5" (64mm). On successive horizontal courses, first remove the silicon



INNOVATIONS FOR LIVING™

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Application Guidelines

coated side release tape from the top edge of the adhered membrane being lapped. Then align the edge of the membrane being installed so it just covers the surface exposed in the previous step. After removing the membrane's release paper, install this membrane as before. This process will ensure uniform lap width and adhesion. Roll membrane into place with hand roller. After all the membrane is installed, complete the finishing outlined in C below.

C. Finishing

Where the membrane is terminated on a vertical surface, mechanical attachment of the membrane to the wall is recommended. Apply a bead of *WeatherProtectR M Mastic* to all vertical and horizontal membrane termination edges. Use a putty knife to smooth the joint to ensure a good seal.

Inspection and Repair

Inspect the installed Owens Corning *WeatherProtectR* Water Resistant Membrane thoroughly before backfilling. Repair all damaged areas with a patch, extending 6" (150mm) in all directions from the defect. Seal edges of patch with *WeatherProtectR M Mastic*.

Backfilling Surface Protection

To protect the Water Resistant membrane while backfilling, the use of a protection board is recommended. Owens Corning's DWB Fanfold is specifically designed for this purpose.

Backfilling and Grading

All backfill should be free of large rocks or other debris. Soil should be placed and compacted against the foundation wall. Direct hot compactor exhaust away from the foundation wall to prevent damage to the waterproofing system. Backfill shall be installed to a maximum of 6" (250mm) above the top of the installed membrane to avoid unexpected moisture penetration into the wall. Grade the top soil layer so that the surface water drains away from the foundation around the perimeter of the building.

Roll Coverage

Approximate installed coverage equals 150 sq. ft.

Caution: The interaction between some rubber modified asphalts and commonly used building materials, such as, plasticized sealants, creosote, coal tar, plasticized/flexible PVC and EPDM may reduce the effectiveness of the seal. The user should verify the compatibility of all materials used on the job.



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