

BELOW GRADE WATERPROOFING – SHEET MEMBRANE

INTRODUCTION

Sheet membranes are cold-applied, self-adhering, preformed rubberized asphalt membranes. It is a fully adhered system. Primer is required. The membrane cannot be exposed to ultra-violet light.

FEATURES & BENEFITS

1. Uniform thickness (factory controlled thickness: 56-60 mils).
2. Able to withstand hydrostatic pressure in both vertical and horizontal conditions.
3. Bridges hairline cracks.
4. Offers wide application temperature range (summer/winter grades available).
5. Consistent coverage at all transitions.
6. Easily inspected and repaired.
7. Weather flexibility (not affected by rain after application).

APPLICATION

Construction Types (Substrates)

1. CMU (grouted or not grouted).
2. Poured in place concrete.
3. Other surfaces (contact manufacturer).

DESIGN CONSIDERATIONS

1. Cannot be installed on frozen substrates.
2. Substrate must be clean, dry and frost free.
3. Cracks greater than 1/16 inch need to be detailed.
4. Positive side application only.
5. Provide protection board.
6. Provide adequate precautions during backfill to prevent damage.

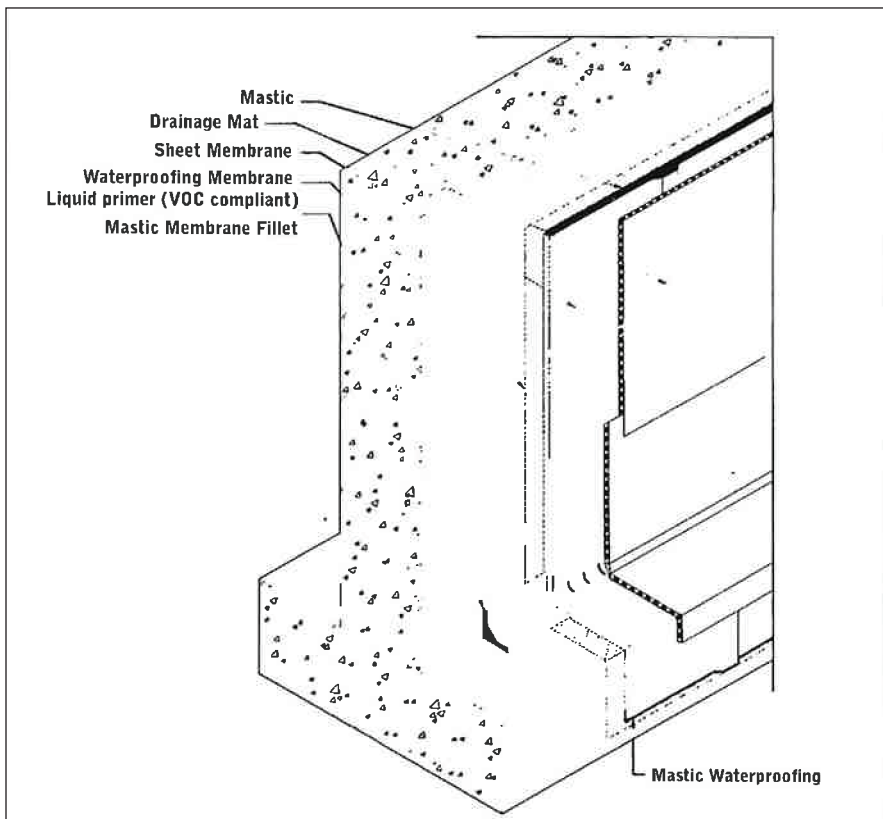
7. Follow manufacturer's recommendations for protection board and other ancillary products.
8. Sheet membrane needs to be covered within one week, and best when protected and backfilled as soon as possible. If sheet membrane is exposed more than seven days, it needs to be inspected prior to backfilling.
9. Drainage mat may be needed for both horizontal, as well as vertical applications. Consult manufacturers for type.
10. The termination line should stop at grade line (compacted anticipated settlement) or 3 inches above. The area above grade line needs to be protected from ultra-violet light.
11. Cant is required between wall and footing transition.

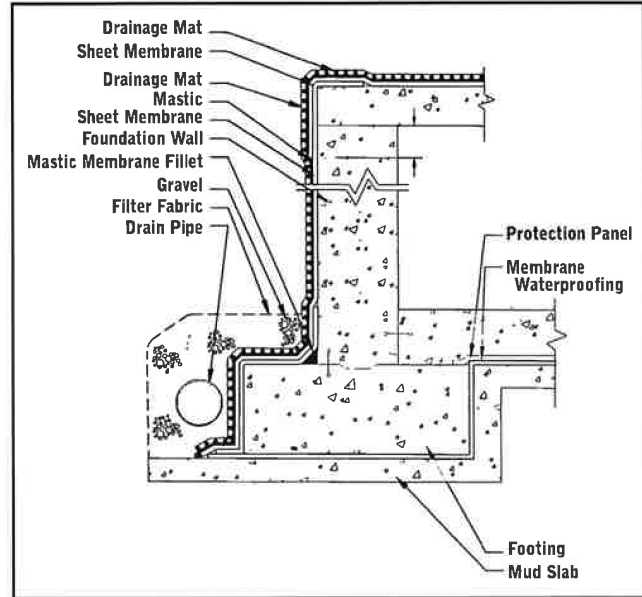
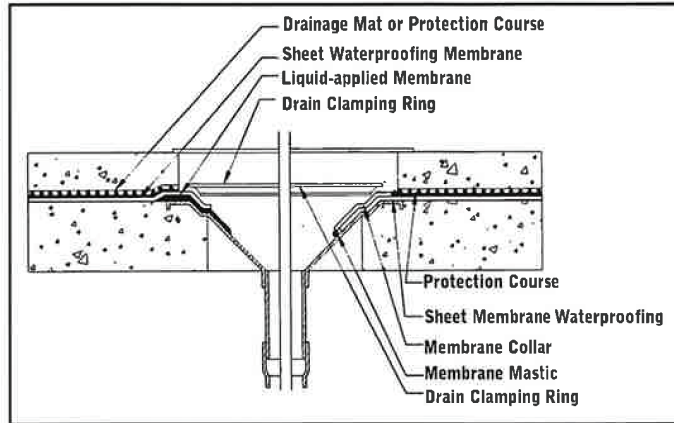
12. Overlap 2 1/2 inches side to side.

13. Overlap 6 inches at butt ends.

APPLICATION CONSIDERATIONS

1. The most critical component for a successful job is to determine surface dryness of the substrate. There is no generally accepted test method or methodology to determine when the wall is ready to be waterproofed. It is also important to know all requirements of the specification.
2. Footing and transition details (detailed per manufacturer's recommendations). It also needs to be addressed at preconstruction meetings (large projects).
3. A smooth, uniform substrate must be achieved. Irregular surfaces may cause failure.
4. Prime all substrates.





5. Sharp edges or form edges must be ground smooth.
6. Honeycombing, voids and cracks must be filled with approved materials.
7. Poured-in-place concrete should be allowed to hydrate for a minimum of 28 days (horizontal); vertical application seven days minimum from when forms pulled, prior to application of sheet membrane. More time for drying may be needed because of temperature/humidity variables. Follow sheet membrane manufacturer's recommendations,
8. CMU joints need to be flush, no tooled joints.
9. For walls requiring a parge coat, grout first and then parge. The parge coat is cured usually in 2 to 3 days.
10. Curing and parge materials should be based on manufacturer requirements and guidelines.
11. Water test horizontal installations.
12. For horizontal structural slab conditions, the structural slab should be adequately sloped to drains.
13. Drainage mat is generally recommended to facilitate surface water flow.
14. Refer to manufacturer's data sheets and material safety data sheets for any necessary precautions regarding exposure to all materials comprising the system.
15. Clean up the site daily and follow government regulations regarding disposal of excess materials and empty containers.

Other valuable resources available from the Sealant, Waterproofing & Restoration Institute

SWR Institute *Applicator*, a technical journal

Applying Liquid Sealants: An Applicator Training Program

Below Grade Waterproofing Manual

Clear Water Repellent Handbook

A Practical Guide to Waterproofing Exterior Walls

Sealants: The Professional's Guide

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