TECHNICAL BULLETIN 6

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.
7. Weather flexibility (not affected by rain after application).
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, and vertical applications. Consult manufacturer 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 are 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, including application of surface primers if needed.
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.
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.