



Exterior Below-Grade Commercial Waterproofing Membrane

Mar-flex 5000 Water-based

Description

The Mar-flex 5000™ Water-Based Elastomeric Emulsion Exterior Below-Grade Waterproofing Membranes are tested and proven membranes that can be applied over almost any clean, dry, sound substrate.

Uses

5000 W.B. is recommended for new construction waterproofing of all below-grade basement walls of poured concrete, unit masonry construction or ICF walls¹. 5000 W.B. can be used as a membrane spray only or as part of a system.

Leeds Data

GREEN product and can be used toward LEEDS building credits.

System Components

Two components make up the Mar-flex 5000 Exterior Below-Grade Waterproofing System: the 5000 W.B. Waterproofing Membrane and one of the specified Mar-flex Insulation / Drainage Boards or Drainage Mats.

Optional Board/Roll Installation

Any size of the Drain & Dry™ or Shockwave™ Boards or the Geo-Mat Plus, "C" Drain110-150 should be installed immediately after spraying each section of the wall with the 5000 W.B.

Equipment

For maximum output of the product, Mar-flex recommends the use of airless spray equipment. A pressure of 3000 psi is required to spray the membrane. Note: If purchasing in a 5-Gallon Bucket the use of a brush, trowel or heavy nap roller is recommended.

Coverage

Depending on porosity and roughness of surface, coverage rate for spray application should be 3.2 to 4 gallons per 100 ft². Coverage rate out of a 5-Gallon Bucket should be approximately 100 ft². Final application should be a minimum of a 55-mil wet thickness resulting in 40-mil dry.

General Requirements

Avoid application when inclement weather is present or imminent. Do not apply the 5000 W.B. membrane when the air temperature is below 20° F. Ensure that footings are exposed and all surfaces are free of any debris, loose material, form oils, wet/damp or frozen areas. Sweep the tops of footers to clear away debris and dry footings/walls.

May be applied to "Green" concrete as soon as forms are removed. Make sure that all existing pipe, conduit or any other penetration through the wall are properly sealed on the outside with water plug, hydraulic cement or similar product. If penetrations are to be added after the spray application, it is still the applicators responsibility to ensure these areas are sealed. If this responsibility is passed onto the builder, inform the builder they are responsible and inform them of the proper procedure to seal these areas.

Required Prep Work

Remove below grade wall ties inside the basement and out. Patch all outside below grade ties holes with the Mar-flex 362 Mastic or similar. Poured concrete walls must be free of voids and honeycombs. Any such areas, if present, should be covered with the Mar-flex 362 Mastic or similar. All brick ledges must be properly capped and sealed.

Application Information

When spraying 5000 W.B., the final recommended spray temperature of the material should be 100°F - 140°F.

Recommended tip sizes: Graco XHD631,635,731or 735.

CAUTION: Prolonged heat can deteriorate water-based products inside the spray tank. NOTE: When transporting water-based material from site to site or when idle on a job-site, the heat exchanger must remain off and there should be no other type of heat source to the tanks. When using the 5-Gallon Buckets, if a thinner consistency is required, a bucket band heater can be used to warm the material. **To flush equipment: Diesel Fuel. Total clean up: Xylene. Thinning not recommended.**

Spray Installation

Membrane application should be done a section of the wall at a time. Use multiple, uniform passes, alternating from horizontal to vertical. Application should end on wall at footer. As work progresses check for thin spots and voids in the spray application. Re-spray any areas as necessary to obtain the required mil thickness. Determine the wet mil thickness by using a standard wet mil gauge. Application should be made to all below-grade basement walls. This includes any wall that would be considered a common wall to habitable/storage areas. (Ex. garage wall, porch, etc.) Note: Please see the individual instruction sheet for the proper way to install the board or roll that you are using.

Backfilling/Drainage

Backfilling should begin no sooner than 24 hours after the installation of the Mar-flex 5000 Exterior Below-Grade Waterproofing System, but must be backfilled within 15 days. #57 Gravel or equivalent must be no less than 6" to 2' high at the base of the foundation and 1' in depth away



Exterior Below-Grade Commercial Waterproofing Membrane

Mar-flex 5000 Water-based

from the foundation walls. Adequate interior and exterior foundation drainage at the base of the foundation walls or across any floors must be properly installed and working. Gutters and downspouts must be installed and functioning properly. Adequate drainage in landscaping beds adjacent to the foundation must be installed. Final grade must not extend above the waterproofing system and must slope away from the foundation at a minimum of 1/2" per foot for the first 12' from the structure.

Shipping Water-Based Product

When shipping emulsion based products during the winter months, there is always a risk of the material freezing while in transport. Plan accordingly, product is freeze/thaw sensitive.

Storage of Water-Based Product

The 5000 W.B., like all asphalt emulsions, must be kept from freezing. It is best to store product containers off the floor at an ambient temperature at 40°F and above. Opened drums should be tightly sealed before storage to prevent a skim-coat from developing on the surface of the liquid. Internal heat sources cannot be used in bulk storage tanks. It is not necessary to have bulk storage tanks insulated.

Packaging

5000 W.B. Waterproofing Membrane is available in 5-Gallon Buckets, 55-Gallon Drums, 330-Gallon Totes and Bulk (6,000 Gallons).

Shelf Life

When stored at temperatures between 40°- 100° shelf life is 6 months in the original, unopened container.

Limited Warranty

Mar-flex Waterproofing & Building Products warrants this product to be free of defects in workmanship and materials only at the time of shipment from our factory. If any Mar-flex materials prove to contain manufacturing defects that substantially affect their performance, Mar-flex will, at its option, replace the materials or refund its purchase price. This limited warranty is the only warranty extended by Mar-flex with respect to its materials. There are no other warranties, including the implied warranties or merchantability & fitness for a particular purpose. Mar-flex specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever. The dollar value of Mar-flex's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the Mar-flex material in question.

Mar-flex 5000 Water Base Spec Sheet		
Property	Method	Results
Color		Black
Total Solids		60-70%
Application Method		Spray, Brush, Roller
Application Range		20° to 130° F
Elongation @ 73.4° F	(ASTM D-412 Method A)	>2200%
Crack Bridging Ability	(ASTM C-836)	10 cycles; no failure
Resistance to Hydrostatic Head Pressure	(Federal Spec TT-C-555B, Par 4.4.7)	No Water Infiltration 13.9ft of head press.
Total Cure Time		24 hrs.
Weight/Gallon		7.5 lbs,
Coverage Rate		5.0 gal./100 ft ²
Tensile Strength	(ASTM-C-719)	48 psi min.
Water Vapor Permeance	(ASTM E-96)	0.35 perm (grains/sq.ft./h)
Mold Growth/Bacterial Attack		No Degradation
Membrane/Board		60 mil dry thickness
Membrane Only		40 mil dry thickness
Adhesion to Concrete		No Adhesion Loss

HEALTH AND SAFETY INFORMATION IS GIVEN IN THE MATERIAL SAFETY DATA SHEET AND THE PRODUCT DATA SHEET AVAILABLE FOR THIS PRODUCT. THESE SHOULD BE READ AND UNDERSTOOD BEFORE USING THIS PRODUCT.

Rev 9-18sm