

Green Waterproofing Solutions that Protect Buildings, Foundations and Earth



Building Solutions

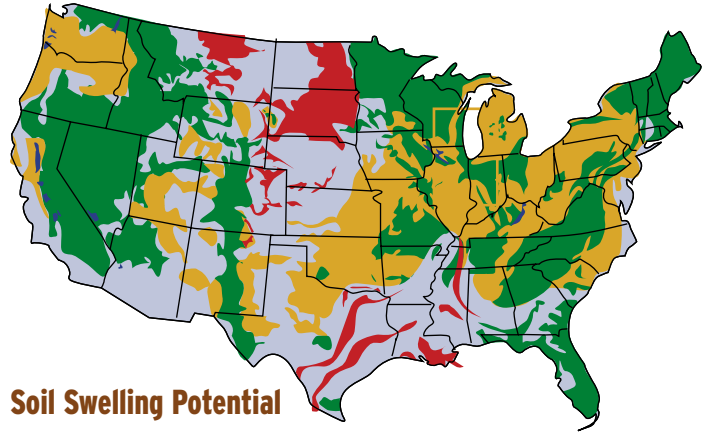
Reducing Moisture In Buildings Is More Than Smart – It's A Tenet Of Sustainability.

Since 1984, Marflex Building Solutions' mission has been to ensure the safest, driest environments possible by creating the world's finest above- and below-grade building envelope systems.

For architects, builders and contractors seeking premium products for residential, multi-family and commercial construction, the research labs at Marflex are continuously pursuing new solutions to keep pace with changing codes, regulations and requirements.

Expansive Soil – the hidden force behind foundation problems.

Expansive soils contain smectite clays that are capable of absorbing water and increasing in volume. Expansion of ten percent or more is not uncommon, exerting enough force on building foundations to cause damage.



Soil Swelling Potential

■ = High ■ = Medium-high ■ = Medium
■ = Medium-low ■ = Low

Marflex offers green membrane and drainage board choices to fit any soil condition.

	High Clay Soil	Clay & Rock Soil	Clay Soil	Topsoil	Sandy Soil	
Green Drain Boards	2" ShockWave™	★★★★	★★★★	★★★★	★★★★	
	1" ShockWave™	★★★	★★★	★★★	★★★	
	2 3/8" Drain & Dry	★★★	★★★	★★★	★★★★	★★★★
	1 3/16" Drain & Dry	★★	★★	★★	★★★	★★★
	3/4" Drain & Dry	★	★	★★	★★	★★
	Geo-Mat™ Plus	★★	★	★★★★	★★★★	★★★★

★★★★ = Best Choice, ★ = Acceptable Choice

Green Membranes	Marflex 5000™	<ul style="list-style-type: none"> • Best at 60 mil thickness • Below Grade • All Soil Conditions • Black Color
	FUSION™ UV	<ul style="list-style-type: none"> • Best at 60 mil thickness • Above & Below Grade • UV Resistant • Gray Color

ShockWave™ Drainage Board doesn't just drain groundwater, it gulps it.



The best way to assure a dry foundation is to take water pressure and backfill pressure off the waterproofing membrane.

ShockWave™ drainage board gulps up to 101.11 gal./hr./lin. ft. of

groundwater to eliminate any possibility of hydrostatic pressure.

It stands up to backfill and bulldozers, too, with 283.72 psi of compressive strength. So it can “bounce back” to its original configuration if compressed.

And because ShockWave is made from 100% post-consumer recycled materials that would otherwise be deposited in landfills, it's green and LEED® friendly.

Contractors love ShockWave, too, because it's light and easy to install, from the top of the footing to the grade line, shortly after membrane application.

You'll find ShockWave installations on custom-built residential, multi-family and commercial buildings across the U.S.

For heavy-clay soil, or clay & rock soil where drainage conditions are extreme, nothing compares to the performance delivered by ShockWave.

ShockWave™ Crushproof Drainage Board		
Thickness	1"	2"
Transmissivity (flow rate) ASTM D-4716	50 gal./hr./lin. ft.	101.11 gal./hr./lin. ft.
Permeability ASTM D-2434	2,160 gal./hr.	2,160 gal./hr.
Compressive Strength ASTM C-1621	283.72 psi	283.72 psi
R-Value ASTM C-518*	9.0	13.5
Coverage / pallet	480 sq. ft.	240 sq.ft.
Packaging 3' x 4' pieces	40 / pallet	20 / pallet
Color	Multicolor w/black silt fabric	Multicolor w/black silt fabric

- **Crush-Resistant Memory (CRM) acts as a shock absorber so backfill doesn't allow debris to harm waterproofing membrane**
- **Closed cell, cross-linked foam resists water absorption to prevent thermal transfer of below-grade ground temperature**
- **Made from inert, environmentally-friendly “Green” recycled foam products**
- **Filter fabric prevents against silting**
- **ShockWave won “Expert's Choice” for Most Innovative Product at World of Concrete 2007**

*ASTM C-518 (3 layer-earth/board/concrete)



Here's why ShockWave™ is GREEN:

ShockWave is made of 100% post-consumer recycled polyethylene-polyolefin foam products that would otherwise be deposited in landfills.



Drain & Dry's brown color signifies a greener approach to drainage, insulation and sustainability.

New Drain & Dry fiber drainage board delivers the water-channeling and insulation stats that have made it one of the top drain boards for foundation walls. But its new brown color means it's green and exceptionally LEED® friendly, too.

New Drain & Dry is made of sand, post-consumer recycled glass, and a proprietary ECOSE™ Technology binder that's based on rapidly renewable bio-based materials rather than non-renewable petroleum-based chemicals.

This revolutionary binder bonds mineral wool strands together, eliminating the formaldehyde and phenols found in traditional binders and insulations.

Contractors love Drain & Dry because it's light and easy to install – from the top of the footing to the grade line. And it

comes in 3 thicknesses to meet any budget or job requirement.

Drain & Dry's semi-rigid construction prevents debris in backfill from harming waterproofing membrane. And its R-Value insulates basement walls on the outside, preventing thermal transfer of below-grade ground temperature.

You'll find Drain & Dry installations on custom-built residential, multi-family and commercial buildings across the U.S.

In topsoil, sand and light clay areas where drainage and insulation are a top concern, Drain & Dry with ECOSE™ Technology combines high R-Value, great drainage, and backfill protection in one product.



Drain & Dry Fiber Drainage Board w/ECOSE™			
Thickness	3/4"	1-3/16"	2-3/8"
Drainage Capacity (K97) ASTM D-4716-87	Up to 65 gal./hr./lin. ft.	Up to 125 gal./hr./lin. ft.	Up to 190 gal./hr./lin. ft.
Compressive Strength ASTM C-165	46.8 psf	22.72 psf	30.72 psf
R-Value	3.1	5.0	10.0
Coverage / bundle	216 sq. ft.	144 sq. ft.	72 sq. ft.
Packaging / 3' x 4' pieces	18 / bundle	12 / bundle	6 / bundle
Color	Brown	Brown	Brown

- ECOSE™ Technology improves the environment by eliminating phenol, formaldehyde and acrylics used in traditional binders
- Semi-rigid board combines high R-Value, drainage and protection in one product
- Rigid construction prevents debris in backfill from harming waterproofing membrane
- Three sizes meet job and budget requirements
- R-Value insulates basement and prevents thermal transfer of below-grade ground temperature

Here's why Drain & Dry with ECOSE™ is GREEN:

Drain & Dry is made with ECOSE™ Technology that converts bio-based materials into an inert polymer that bonds mineral wool strands together, eliminating the formaldehyde and phenols found in traditional binders and insulations.





**Here's why
Geo-Mat™ Plus
is GREEN:**

Geo-Mat Plus is made of 100% post-consumer high-density polyethylene, rather than new materials, saving costs and reducing resource use.



Geo-Mat™ Plus keeps foundation walls dry by showing water the fast lane to drain tile.

Geo-Mat™ Plus dimpled drainage board helps water fall freely to the footer drain, eliminating hydrostatic pressure and assuring a clear water channel between backfill and the foundation wall.

Geo-Mat Plus is made of 100% post-consumer recycled high-density polyethylene (HDPE) rather than new materials, saving costs and reducing the use of natural resources. So it's green, and LEED® friendly, too.

Contractors love Geo-Mat Plus because its light and easy to install – from the top of the wall or grade line to the footer. And to speed up installation and help distribute board weight, available Geo Clips simplify the job.

An integrated top profile seals the top of Geo-Mat Plus to prevent dirt and debris from entering behind the roll.



It's high dimples rapidly channel water to footer drains. And it's attached geotextile mat resists water absorption and protects against silting.

You'll find Geo-Mat Plus installations on custom-built residential, multi-family and commercial buildings across the U.S.

In topsoil and sandy soil areas where drainage matters more than R-Value, Geo-Mat Plus keeps foundation walls dry while protecting waterproofing membrane from silt and backfill.

Geo-Mat™ Plus Dimpled Drainage Board	
Drainage Capacity	30.41 gal./min./ft. ²
Compressive Strength	> 29 lb./in. ²
Thickness	0.2968"
R-Value	0 – roll designed for drainage only
Packaging	8' x 50' roll
Coverage / roll	400 sq.ft./roll
Color	Gray with white silt guard

- High dimples rapidly channel water and moisture from grade to footer drainage system
- Attached geotextile mat protects against silting
- Rigid construction prevents debris from harming membrane
- Integrated top profile seals the top of the board to prevent dirt and debris from entering behind roll
- Geo Clips speed installation and help distribute board weight

Marflex 5000™ never dries out, remains permanently flexible, and is guaranteed for up to 60 years*.

Marflex 5000™ waterproofing membrane is a tested and proven fortified, polymer-based, elastomeric asphalt emulsion membrane that can be applied over almost any clean, dry,



sound substrate for maximum waterproofing.

Its permanent elasticity provides excellent elongation and recovery properties and allows it to bridge cracks and move with a settling structure.

To achieve optimal 60-mil dry thickness, Marflex 5000

can be applied in fewer coats, through all seasons and weather changes. It adheres to uncured (green) walls, and it cures in 24 hours, which saves contractors time and money.

Marflex 5000's special formulation applies easily and produces a viscous, flexible, seamless seal that resists freeze-thaw cycles. Plus, being a water-based formulation, it's low in VOC's (Volatile Organic Compounds).

Marflex 5000 is recommended for poured concrete or unit masonry construction to protect against water penetration, moisture and condensation that can contribute to mold.

ICC Evaluation Service, Inc. (ICC-ES) has issued evaluation report NER-658 on the Marflex 5000™ Waterproofing Membrane. ICC-ES finds that, subject to the conditions set

forth in NER-658, the membrane complies with the 2000 International Building Code, or is a suitable alternative to what is specified in the code.

When you choose Marflex 5000, you're guaranteed protection from water leakage and seepage for up to 60 years. And if the home is sold, the warranty may be transferable.

Marflex 5000™ Water-Based Waterproofing

Total Solids	60-70%
Application Method	Brush, roller or spray
Elongation at 70° F	1,725%
Application Range	20° - 130°
Total Cure Time	24 hrs.
Tensile strength	48 psi min.
Weight/gallon	7.5 lbs.
Coverage	3.3-5.0 gal./100 ft ²
Spray & board	60 mil dry thickness
Packaging	5 gal bucket, 55 gal drum, 330 gal tote, Bulk
Color	Black
VOC	Ammonia Free

*Marflex Building Solutions offers product warranties of 15 to 60 years on Marflex 5000 when applied on residential walls. A 60 Year warranty requires a professional installation of 60-mil dry thickness of Marflex 5000 waterproofing membrane and 2" ShockWave drainage board. Complete warranty details available upon request.

Here's why Marflex 5000™ is GREEN:

Marflex 5000 is a heavy-duty, water-based emulsion coating that is AMMONIA-FREE. The use of low-emitting materials improves air quality and reduces demand for materials that harm the environment.





Here's why FUSION™ UV is GREEN:

Fusion UV is an acrylic, 100% polymer, water-based waterproofing membrane that's AMMONIA-FREE. The use of low-emitting materials improves air quality and reduces demand for materials that harm the environment.



FUSION™ UV's solar-resistance and gray color lets you protect the full foundation wall, up to the sill plate.

When you want to waterproof your foundation walls from top to bottom, there's no better membrane than FUSION™ UV.

First, FUSION UV is 100% acrylic, and UV-resistant – so it stands up to sunshine and doesn't break down like asphalt-based membranes.

Second, it's gray in color — so it can be applied above-grade, to the top of the sill plate, without worry that the membrane might show above the backfill line. And because it is darker than concrete, it beautifies foundations and covers cracks and flaws.

FUSION UV is a tested and proven 100% polymer, acrylic water-based waterproofing membrane that can be applied to any poured foundation. Its elasticity provides elongation and recovery properties that allow it to move with a structure as it settles.

To achieve optimal 60-mil dry thickness, FUSION UV can be applied through all seasons and weather changes. It adheres to uncured (green) walls, and it cures in 24 hours, which saves contractors time and money.

Its special formulation produces a viscous, flexible, seamless seal that resists freeze-thaw cycles. Plus, being a water-based formulation, it's low in VOC's (Volatile Organic Compounds).

ICC Evaluation Service, Inc. (ICC-ES) has issued evaluation report NER-658 on the Fusion™ Waterproofing Membrane. ICC-ES finds that, subject to the conditions set forth in NER-658, the membrane complies with

the 2000 International Building Code, or is a suitable alternative to what is specified in the code.

When FUSION UV is applied with any Marflex drain board, you get a Limited Lifetime warranty against water leakage and seepage. And if the home is sold, the warranty may be transferable.

FUSION™ UV Water-Based Membrane	
Total Solids	58%
Application Method	Spray, brush, roller
Elongation at 70° F	1,800%
Application Range	15° - 150°
Total Cure Time	24 hrs.
Tensile strength	32 psi min.
Weight/gallon	7.6 lbs.
Coverage	2.5 gal./100 ft²
Spray & board	60 mil dry thickness
Packaging	5 gal bucket, 55 gal drum
Color	Gray
VOC	Ammonia Free

* Marflex Building Solutions offers 15 year to Limited Lifetime warranties for FUSION UV when applied on residential walls. The Limited Lifetime warranty requires a professional installation of 60-mil dry thickness of FUSION UV waterproofing membrane, plus an approved Marflex drainage board. Complete warranty details available upon request.

For 3-Part and 10-Part Specifications
and MSDS sheets, call 1.800.498.1411
or contact technicalsupport@mar-flex.com



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