



# ULTIMATE GROUND WATER CONTROL FOR STRUCTURES



#### Sealed, Smart, and Sustainable

- Environmentally friendly and ecologically sound
- 100% recycled drainage mat
- Top performing drainage mat
- Green LEED® Contributor



Technically Advanced by Design

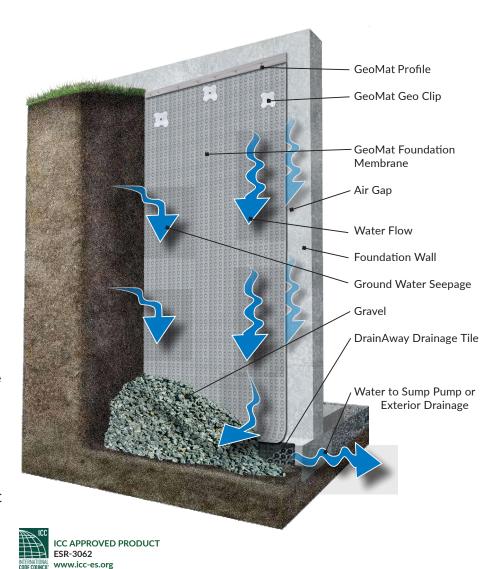
### GE WAT



#### **FOUNDATION SYSTEM - How It Works**

#### **ADVANTAGES**

- Custom designed accessories for a seamless installation
- 100% recycled HDPE content used for the base material, LEED credit available, environmentally safe and non-toxic
- Linear aligned dimples for a clear open drainage path for bulk water transport
- High drainage capacity diffuses hydrostatic pressure against foundation wall
- Roll sizes that make handling them manageable in the field for easy installation
- Unique attachment clips and strips for attaching the membrane to the foundation securely
- Sealing strips for overlaps to ensure bulk water stays outside of the membrane
- Membrane can be installed in any climate
   is not weather dependent
- Performance is guaranteed since the HDPE material is highly chemically resistant and will provide protection in any climate and resists water and water vapor penetration
- Compressive strength of sheet meets IRC requirements for lateral earth pressures to 16 ft
- Material can be used for construction in both the IRC and IBC



#### WHAT IS GEOMAT™?

Mar-flex GeoMat is a **wall waterproofing & drainage membrane** manufactured from recycled polyolefin resins which are selected for their specific properties to contribute to premium quality plastic sheet products. These resins also **contribute to the LEED credits and Green Building practices** which are in high demand throughout the construction market for residential, commercial and institutional projects.

The GeoMat drainage membrane is a thermally formed HDPE membrane with dimples formed into the sheet to allow back side drainage to take place, providing a capillary break between the foundation wall and the membrane. The membrane **stops ground water from making direct contact with the foundation wall** thereby providing a stand alone waterproof protection sheet with built in drainage. The air gap created allows the foundation to naturally aspire and dry moisture to this air gap, **reducing the effects of interior moisture accumulation** from footing moisture wicking, or transient moisture that gets behind the membrane.

The air gap also **reduces the chances of foundation leakage** through imperfections in concrete and concrete block walls such as tie rod holes, or shrinkage cracks, when the drainage plane within the air gap is free draining and unobstructed. Since the membrane is mechanically fastened to the foundation it is independent of the wall it protects, and **continues protecting the wall even if foundation defects appear after installation.** 

With a complete line of accessories specifically designed for attachment, overlaps and terminations of the GeoMat, the installation is seamless and effective at keeping foundations dry and comfortable.

#### PRODUCT DESCRIPTION

The dimple height is 0.31" (8mm) providing a drainage capacity of  $\pm$  8 gal/min/ft (98.4 L/min/m) and a compressive strength of 5515 psf. High Density Polyethylene (HDPE) is highly resistant to chemical attack and **has a life expectancy of 50+ years** when used as recommended. GeoMat is suitable for use in most soil types to a depth of up to 16 feet without the need for special considerations, where hydrostatic pressures are not anticipated.

As the dimples of the Mar-flex GeoMat are aligned in straight rows, the free drainage path is unobstructed which translates into higher flow rates for improved drainage characteristics compared to some competitive products in the marketplace which use an offset pattern of dimple placement. This alignment contributes to less turbulence within the drainage plane, and also assists in keeping the drainage path clean of debris that might find its way behind the membrane (ie: soil particles).

#### PRODUCT USE

The use of GeoMat is suited for use on residential foundations, shallow light commercial foundations, and other construction types that utilize the ICC IRC or the IBC (dampproofing) requirements for below grade protection of foundations and structures.

Applications using this membrane can be completed as a standalone protection system or in combination with other materials such as liquid applied membranes for a systems approach to subterranean protection.

Mar-flex GeoMat provides superior protection and unmatched cost savings when compared to conventional construction techniques typically used to provide similar protection. GeoMat is a good environmental choice, for now and the future, "Superior by design."



3-Way Foundation Protection:

Breathability. Impermeability. Drainage.
The "BID" Benefits.

Try the complete line of Mar-flex products.

Foundation Waterproofing | Waterproofing Membranes | Dampproofing Products | Concrete Repair

Concrete Anchor Epoxies | Drainage Boards | Egress Window Wells | Standard Window Wells

Sealers/Mastics | Control Joint Systems | Air Barrier Systems | Vortex Vents | Commercial Waterproofing Products

#### **CONTRACTOR BENEFITS**

- Installation can begin within 24 hours after forms are removed from poured concrete.
- No hazardous chemicals are necessary to install membrane.
- Can be installed in any weather.
- No expensive or special tools required.
- Certified training available through Mar-flex
- An average 1,500 square foot foundation takes only 2 hours to install.
- Excellent Warranties available from Mar-flex for builder and homeowner confidence.
- Consistent product sizes and quality to ensure your installations are completed on time and within budget.
- Roll sizes are 4', 6'9" and 8' widths, with all rolls 50' in length for easy inventory and stocking arrangements.
- The Mar-flex GeoMat is supplied by a company that has 25 years of experience in the waterproofing business, has roots in the North American market and is respected when it comes to foundation protection.

#### **BUILDER BENEFITS**

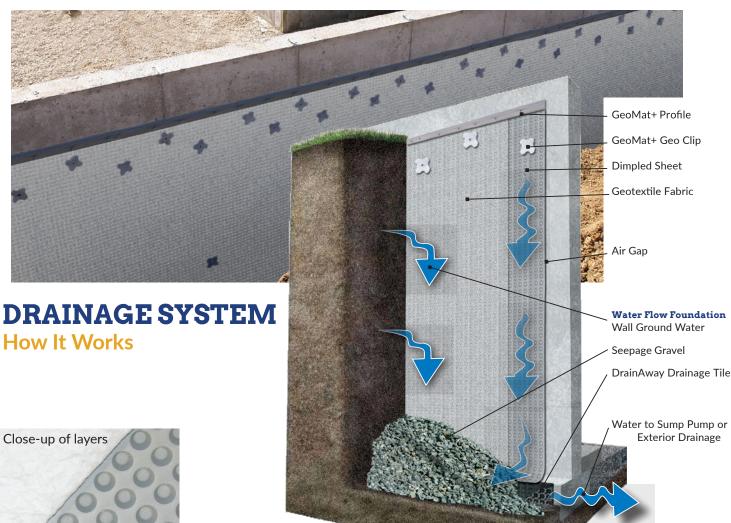
- Service callbacks are drastically reduced.
- Greener sites, as the completed installation does not pollute or off-gas, maintaining a healthier home environment.
- Easy construction scheduling as Mar-flex GeoMat can be installed without lengthy curing times between application, such as the case with some liquid-applied membranes.
- Closing schedules can be met with more accuracy by using one trade with one membrane and not holding up construction for other trades needing access.
- Warranties are enhanced with Mar-flex GeoMat since the expected service life of the product is greater than 50 years.
- Mar-flex GeoMat provides protection from construction activities for cases where liquid-applied membranes are used in combination with Mar-flex GeoMat, increasing builder confidence and homeowner satisfaction.
- Homeowners can actually see the difference that GeoMat makes to their comfort level by making basements feel drier.
- Happy homeowners = better builder ratings, increased profits.

GeoMat Spec Sheet*								
	Criteria	Test Method	Requirement	Result	Comment			
THICKNESS (in)	ICC-ES AC114		.025fa <sup>†</sup> /.021da <sup>†</sup>	.025fa/.02da	Pass			
WEIGHT (oz/ft²)(g/m²)	ICC-ES AC114		1.6 min/500	1.73/527.3	Pass			
DYNAMIC IMPACT	ICC-ES AC114		Pass/Fail	Pass	-			
STATIC PUNCTURE	ICC-ES AC114		Pass/Fail	Pass	-			
LOW TEMPERATURE FLEX	ICC-ES AC114		Pass/Fail	Pass	-			
WATER VAPOR PERMEABILITY	ICC-ES AC114	ASTM E96 (B)	0.239 max	0.173	Gr/hr/ft²			
TENSILE STRENGTH (lb/in)	ICC-ES AC114		MD(45.6)/XD(45.6)	MD(47.7/XD(51.8)	Pass			
ELONGATION (%)	ICC-ES AC114		(MD)25/XD(25)	MD(27.5)/XD(39.8)	Pass			
Water Immersion (Dimensional Change %)	ICC-ES AC114		1	0.0	Pass			
(Weight Change %)	ICC-ES AC114		.10 max	0.0	Pass			
(Tensile Strength - % of original)	ICC-ES AC114		MD(80)/XD(80)	MD(96)/XD(97)	Pass			
(Elongation - % of original)	ICC-ES AC114		MD(70)/XD(70)	MD(97)/XD(74)	Pass			
Heat Aging (Mechanical Properties)	ICC-ES AC114		Pass/Fail	Pass	-			
Chemical Exposure (Ammonium Chloride)	ICC-ES AC114		Pass/Fail	Pass	-			
COMPRESSIVE STRENGTH (psi/psf)	ICC-ES AC114		(14.5 min/2088 min)	(38.29/5515)	Pass			
WATER FLOW RATE				14.2 gal/min/ft (176 L/min/m)	-			
PACKAGING					4' x 50' roll or 6'9" x 50' roll or 8' x 50' roll			
SHIPPING DATA (Rolls/Pallet)					24/12/12			
<b>ROLL WEIGHT</b> – 4' (lb/kg) 6.75' (lb/kg) 8' (lb/kg)					(26/11.79) (36.39/16.51) (43.19/19.59)			

<sup>\*</sup>For detailed information, please contact Mar-flex Technical Services at 800-498-1411.

<sup>†</sup>Flat Area (fa), Dimpled Area (da)

## GE MAT-





#### **ADVANTAGES**

- Resistance to hydrostatic pressure
- High dimples provide ample drainage capacity
- Protects foundation waterproofing membrane
- Resistant to saline solutions, alkalis and acids
- · Easy installation
- LEED Certification



### Typar Geotextile Features UOM MARV TEST

PROPERTY	UOM	MARV	TEST METHOD
Grab Tensile	lb (N)	120 (533)	ASTM D4632
Grab Elongation	%	60	ASTM D4632
Trapezoid	lb (N)	40 (180)	ASTM D4533
Unit Weight	oz/yd2 (gsm)	3.4 (116	ASTM D5261
CBR Puncture	lb (N)	187 (832	ASTM D6241
UV Resistance @500 hours	%	70	ASTM D4355
Permittivity	sec-1 gal/min/ft2 L/min/m-2	0.7 85 3485	ASTM D4491
Probe Analysis (Puncture Strength)	lb (N)	34 (150	ASTM D483
Apparent Opening Size	US Sieve (mm)	60 (0.250)	ASTM D4751

#### WHAT IS GEOMAT+™?

Mar-flex GeoMat+ is a **geocomposite drainage membrane** manufactured from recycled polyolefin
resins which are selected for their specific properties to
contribute to premium quality plastic sheet products.
These resins also **contribute to the LEED credits and Green Building practices** which are in high demand
throughout the construction market for residential,
commercial and institutional projects.

The Mar-flex GeoMat+ geocomposite drainage membrane is a thermally formed HDPE membrane with a heat bonded geotextile onto the sheet to allow front "positive" side drainage to take place, providing a continuous capillary break between the foundation wall and the membrane. The membrane stops ground water from making direct contact with the foundation wall thereby providing a stand alone or composite waterproof protection system with built in drainage.

The positive side air gap created allows the soil to naturally drain and redirects ground water moisture to this air gap, **reducing the effects of interior moisture accumulation** from footing moisture wicking, or transient moisture from making direct contact with any liquid applied waterproofing layer.

The air gap also **reduces the chances of foundation leakage** through imperfections in concrete and concrete block walls such as shrinkage cracks, by providing a continuous sheet of protection over the foundation wall. Since the membrane is mechanically fastened to the foundation it is independent of the wall it protects, and **continues protecting the wall even if foundation defects appear after installation.** 

With a complete line of accessories specifically designed for attachment, overlaps and terminations of the GeoMat+, the installation is seamless and effective at keeping foundations dry and comfortable.

#### PRODUCT DESCRIPTION

The dimple height is 0.315" (8mm) providing a drainage capacity of  $\pm$  18 gal/min/ft and a compressive strength of 5515 psf. High Density Polyethylene (HDPE) is highly resistant to chemical attack and **has a life expectancy of 50+ years** when used as recommended. GeoMat+ is suitable for use in most soil types (including some poor draining soil types) to a depth of up to 16 feet without

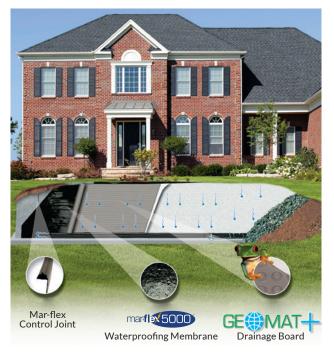
the need for special considerations, where hydrostatic pressures may be anticipated.

As the dimples of the Mar-flex GeoMat+ are aligned in rows, the free drainage path is unobstructed which translates into higher flow rates for improved drainage characteristics compared to some competitive products in the marketplace which use an offset pattern of dimple placement. The geotextile is a polypropylene type with a sieve size chosen for good filtration and water flow rates to maximize drainage.

#### PRODUCT USE

The use of the GeoMat+ is suited for use on residential foundations, shallow light commercial foundations, and other construction types that utilize the ICC IRC or the IBC (damp proofing) requirements for below grade protection of foundations and structures. Applications using this membrane can be completed as a standalone protection system or in combination with other materials such as liquid applied membranes for a systems approach to subterranean protection.

Mar-flex GeoMat+ provides superior protection and unmatched cost savings when compared to conventional construction techniques typically used to provide similar protection. GeoMat+ is a good environmental choice, for now and the future, Superior by design, "Ultimate in Protection."



3-Way Foundation Protection: Control. Impermeability. Drainage.
The "CID" Benefits.

Try the complete line of Mar-flex products.

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Concrete Anchor Epoxies | Drainage Boards | Egress Window Wells | Standard Window Wells

Sealers/Mastics | Control Joint Systems | Air Barrier Systems | Vortex Vents | Commercial Waterproofing Products

#### **CONTRACTOR BENEFITS**

- Installation can begin within 24 hours after the forms are removed from poured concrete.
- No hazardous chemicals are necessary to install membrane.
- Can be installed in any weather.
- No expensive or special tools required.
- Certified training is available through Mar-flex, with a complete Technical Services Department for assistance.
- An average 1500 square foot foundation takes only 2.5 hours to install when installed according to our guidelines.
- Perfect complementary product to liquid waterproofing.
- Consistent product sizes and quality to ensure your installations are completed on time and within budget.
- Reduced incidents of water leaks due to "positive side" drainage, higher performance rating from clients.
- The Mar-flex GeoMat+ is supplied by a company that has 25 years of experience in the waterproofing business, has its roots in the North American market and is a respected name when it comes to foundation protection.

#### **BUILDER BENEFITS**

- Service callbacks are drastically reduced.
- Greener sites, as the completed installation does not pollute or off-gas, maintaining a healthier home environment.
- Easy construction scheduling as Mar-flex GeoMat+ is the perfect complement to liquid-applied waterproofing.
- Warranties are enhanced with Mar-flex GeoMat+ since the expected service life of the product is greater than 50 years.
- Mar-flex GeoMat+ provides protection from construction activities for cases where liquid applied membranes are used in combination with Mar-flex GeoMat+, increasing builder confidence and client satisfaction.
- Better ground water control for protection of foundations allows property owners to see the long term advantage of using Mar-flex GeoMat+.
- Better performing buildings, better builder ratings, increased profits, more satisfied clients.
- Happy homeowners = better builder ratings, increased profits.

GeoMat+ Spec Sheet*									
	Criteria	Test Method	Requirement	Result	Comment				
THICKNESS (in)	ICC-ES AC114		.025fa†/.021da†	.025fa/.02da	Pass				
<b>WEIGHT</b> (oz/ft²)(g/m²)	ICC-ES AC114		1.6 min/500	1.73/527.3	Pass				
DYNAMIC IMPACT	ICC-ES AC114		Pass/Fail	Pass	-				
STATIC PUNCTURE	ICC-ES AC114		Pass/Fail	Pass	-				
LOW TEMPERATURE FLEX	ICC-ES AC114		Pass/Fail	Pass	-				
WATER VAPOR PERMEABILITY	ICC-ES AC114	ASTM E96 (B)	0.239 max	0.173	Gr/hr/ft²				
TENSILE STRENGTH (lb/in)	ICC-ES AC114		MD(45.6)/XD(45.6)	MD(47.7/XD(51.8)	Pass				
ELONGATION (%)	ICC-ES AC114		(MD)25/XD(25)	MD(27.5)/XD(39.8)	Pass				
Water Immersion (Dimensional Change %)	ICC-ES AC114		1	0.0	Pass				
(Weight Change %)	ICC-ES AC114		.10 max	0.0	Pass				
(Tensile Strength - % of original)	ICC-ES AC114		MD(80)/XD(80)	MD(96)/XD(97)	Pass				
(Elongation - % of original)	ICC-ES AC114		MD(70)/XD(70)	MD(97)/XD(74)	Pass				
Heat Aging (Mechanical Properties)	ICC-ES AC114		Pass/Fail	Pass	-				
Chemical Exposure (Ammonium Chloride)	ICC-ES AC114		Pass/Fail	Pass	-				
COMPRESSIVE STRENGTH (psi/psf)	ICC-ES AC114		(14.5 min/2088 min)	(38.29/5515)	Pass				
WATER FLOW RATE		ASTM- D4716		18 gal/min/ft (223 L/min/m)	-				
PACKAGING					4' x 50' roll or 6' x 50' roll or 8' x 50' roll				
SHIPPING DATA (Rolls/Pallet)					9				
<b>ROLL WEIGHT</b> – 4' (lb/kg) 6' (lb/kg) 8' (lb/kg)					(32/14.51) (58/26.30) (64/29.03)				

<sup>\*</sup>For detailed information, please contact Mar-flex Technical Services at 800-498-1411.

<sup>†</sup>Flat Area (fa), Dimpled Area (da)

#### **GEO-MAT ACCESSORIES**

#### **GEO-MAT™ Products**

#### **Geo Clip**

Geo Clip is designed to be used in conjunction with Mar-flex Geo-Mat and Geo-Mat Plus to speed installation. The Geo Clip's prongs help distribute weight to secure board after nail is inserted into preformed center nail hole.



GM-48277

500/box

#### **Adhesive Band**

Adhesive Band is designed to be used in conjunction with Mar-flex Geo-Mat during dampproofing applications. The adhesive band seals overlaps and other critical points on flat side of roll.



Roll Size: 6" x 75'

6 rolls/box

GM-48285

#### **Profiles**

Profiles are designed to be used in conjunction with Mar-flex Geo-Mat & Geo-Mat Plus. The Profile protects the top edge of the polyethylene at grade level from soil penetration between roll and wall.



50 (6'6") Profiles/box

#### **Board Fasteners**

Drainage board fasteners. Fastens board to poured wall, providing an additional bond until backfilled. May be installed into concrete with hammer.

1" 500/box - AI-28132 1-1/4" 500/box - AI-28134 1-1/2" 500/box - AI-28136 2-1/2" 500/box - AI-28138



Questions?
Call Mar-flex Today!

800 498 1411

AI-28132





AI-28134

AI-28136





AT 20120

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