

# Submittal Package

07 14 16
Cold Fluid-Applied Waterproofing
Ultra-Guard Elastomeric High Build

GMX, Inc. 866-228-7743 WWW.GMXCO.COM

# SECTION 07 14 16 Cold Fluid Applied High Build Protected Membrane Ultra-Guard Elastomeric HB

NOTE: This Guide Specification includes materials and methods for the application of Ultra-Guard Elastomeric HB System, cold applied, moisture cure, solvent free, elastomeric waterproofing membrane system for typical applications including horizontal inverted protected membrane roofing assembly (PMR). This specification is ideally suited for premium performance roofing systems typical of hospitals, schools, and commercial projects. Although prepared in CSI three-part format, this specification should be adapted to suit the requirements of individual projects, and should be included as a separate section under Division 7 - Thermal and Moisture Protection

## **PART 1: GENERAL**

# 1.01 GENERAL REQUIREMENTS

- A. The General Conditions, Supplementary Conditions, Instructions to Bidders and Division One General Requirements shall be read in conjunction with and govern this section.
- B. The Specification shall be read by all parties concerned. Each Section may contain more or less than the complete Work of any trade. The Contractor is solely responsible to make clear to the Subcontractors the extent of their Work.

# 1.02 DESCRIPTIONS

- A. Supply labor, materials, tools and equipment to complete the Work as shown on the Drawings Architectural Division as specified herein including, but not limited to the following:
  - 1. Concrete [Wood] [Metal w/sheathing overlay] Roof Deck (by others)
  - 2. Reinforced Cold Fluid Applied Waterproofing Membrane
  - 3. Protection Course/Separation Sheet
  - 4. Drainage Composite
  - 5. Rigid Insulation
  - 6. Filter fabric
  - 7. Pavers

## 1.03 RELATED WORK

- A. DIVISION 3 Concrete [Section XXXXXX] Roof Deck Surface/Substrate
  The coordination of this section is necessary to facilitate the successful installation of the waterproofing membrane.
  - 1. Acceptable substrates:
    - a. Form Release Agents: Contact GMX
    - b. Cast-in-Place Concrete/Composite Deck: Precast Concrete
      - 1. Strength/density: Minimum 2,500 psi (17,235 kPa) compressive strength and minimum 115 pcf (1842 kg/m3) density
      - 2. Finish: Broom, wood-float, or wood-troweled equivalent finish. Steel float finishes are too smooth and compromise the adhesion of the waterproofing system. Decks with a steel float finish must be sandblasted or equivalent prior to the application of the waterproofing system.
      - 3. Concrete Hydration (Cure):
        - a. Method of Cure: Water cure, wet coverings, paper sheets, plastic sheets or approved liquid curing compound (sodium silicate preferred).
        - b. Duration of Cure/Dry:
          - Recommend 24 hours minimum after concrete forms have been removed.
          - 2. Contact GMX when less than the minimum is desired.
    - c. Lightweight insulating concrete is not an acceptable substrate.
    - d. Structural lightweight concrete:
      - 1. Metal pan decks to which concrete is poured shall be venting type.
        - a. Contact GMX if metal pan deck is not venting type.
      - 2. Strength/density: Minimum 2,500 psi (17,235 kPa) compressive strength and minimum 115 pcf (1842 kg/m3) density
      - 3. Finish: Broom, wood-float, or wood-troweled equivalent finish. Steel float

finishes are too smooth and compromise the adhesion of the waterproofing system. Decks with a steel float finish must be sandblasted or equivalent prior to the application of the waterproofing system.

- 4. Concrete Hydration (Cure):
  - a. Method of Cure: Water cure, wet coverings, paper sheets, plastic sheets or approved liquid curing compound (sodium silicate preferred).
  - b. Duration of Cure/Dry:
    - Recommend 7 days minimum after concrete forms have been removed.
    - 2. Contact GMX when less than the minimum is desired.

# \*REFER TO SECTION 3.02 PREPARATION, FOR ADDITIONAL INFORMATION\*

- B. DIVISION 05 Metals [Section XXXXXX] [Metal decking] [Steel decking]
  - 1. Acceptable Substrates:
    - a. Metal Deck
      - 1. Metal pan decks to which concrete is poured must be venting type.
      - 2. Contact GMX if metal pan deck is not venting type.

# \*REFER TO SECTION 3.02 PREPARATION, FOR ADDITIONAL INFORMATION\*

- C. DIVISION 05 Metals [Section XXXXXX] Flashing and Sheet
- D. DIVISION 06 Wood, Plastics, and Composites [Section XXXXXX] Wood Blocking and Curbing
- E. DIVISION 06 Wood, Plastics, and Composites [Section XXXXXX] Sheathing
  - 1. Acceptable Substrates:
    - a. Sheathing over [metal decking] [steel decking]
      - 1. Consult GMX, Inc. for installation recommendations.
- F. DIVISION 07 Thermal and Moisture Protection [Section XXXXXX] Insulation
- G. DIVISION 07 Thermal and Moisture Protection [Section XXXXXX] Caulking and Sealants
- H. DIVISION 07 Thermal and Moisture Protection Section 073363 Vegetated Roofing
- DIVISION 22 Plumbing [Section XXXXXX] Specialties
- J. DIVISION 32 Exterior Improvements [Section XXXXXX] Paving/Site
  - 1. Furnishings as supplied by GMX, Inc. See Division 7 for specific details.
- K. DIVISION [] [Section XXXXXX] LEED Requirements

# 1.04 REFERENCES

- A. The following standards are applicable to this section:
- B. ASTM C 836: High Solids Content, Cold Liquid Applied Elastomeric Waterproofing Membrane
- C. ASTM E96: Water Vapor Transmission of Materials.

# 1.05 SHOP DRAWINGS

A. Submit shop drawings in accordance with Section [XXXXXX].

# 1.06 DELIVERY and STORAGE

- A. Delivery of Materials:
  - 1. Materials shall be delivered to the jobsite in undamaged and clearly marked containers indicating the name of manufacturer and product.
- B. Storage of Materials:
  - 1. Cold fluid applied waterproofing should be stored in closed containers outdoors.

# 1.07 PROJECT/SITE CONDITIONS

- A. Environmental Requirements:
  - 1. No Work shall be performed during rain or inclement weather.
  - 2. No Work shall be performed on frost or wet covered surfaces.
- B. Protection:
  - 1. Temporary protection of the membrane shall be provided to prevent mechanical damage or damage from spillage of oil or solvents until such time as permanent protection is installed.

- 2. Do not permit traffic of any kind over unprotected waterproof membranes. Apply protection course as soon as possible in accordance with published literature after waterproofing membrane installation.
- C. Ensure all preparation work is complete prior to installing waterproofing membrane.

#### 1.08 SUBMITTALS

- A. Statement that installing contractor is authorized by manufacturer to complete Work as specified.
- B. Copy of manufacturers' current ISO certification.
- C. Manufacturers' complete set of standard details for the waterproofing membrane system.
- D. Certify that waterproofing components are supplied and warranted by single source manufacturer.

# 1.09 QUALITY ASSURANCE

- A. Single-Source Responsibility:
  - 1. Obtain waterproofing, insulation, and paver assembly components and materials from a single manufacturer regularly engaged in the manufacturing and supply of the specified products.
  - 2. Contractor to verify product compliance with federal, state and local regulations controlling use of Volatile Organic Compounds (VOC).

#### B. Installer:

- 1. Perform Work in accordance with manufacturer published literature and as specified in this section.
- 2. Maintain one copy of manufacturer's instructions on site.
- 3. At all times during the execution of the Work allow access to site by the waterproofing membrane manufacturer's representative.
- 4. Mock-Up:
  - a. Contact manufacturer, when required, a minimum of two weeks prior to construction mock-up to schedule an on-site meeting.
  - b. Where directed, construct typical assembly incorporating substrate and waterproofing membrane.
  - c. Allow 24 hours for inspection of mock-up before proceeding. Mock-up may remain as part of the work.
- C. All components used in this section shall be furnished by one manufacturer including primary membrane, liquid sealants, primers, mastics, and adhesives.
- D. Primary membrane shall meet ASTM C 836.
- E. Primary membrane shall be resistant to acids (fertilizers, building washes and acid rain).

# 1.10 MEMBRANE MANUFACTURER QUALIFICATIONS

- A. Manufacturer shall demonstrate qualifications to supply materials of this section by certifying the following:
  - 1. Membrane Manufacturer must not issue warranties for terms longer than they have been manufacturing waterproofing systems.

## 1.11 PRECONSTRUCTION CONFERENCE

A. When required, and with prior notice, a representative of the waterproofing/roofing membrane manufacturer will meet with the necessary parties at the jobsite to review and discuss project conditions as it relates to the integrity of the waterproofing assembly.

# 1.12 ALTERNATES

- A. Submit requests for alternates in accordance with Section [XXXXXX].
- B. Alternate submission format to include:
  - Evidence that alternate materials meet or exceed performance characteristics of Product requirements and documentation from an approved independent testing laboratory certifying that the performance of the waterproofing membrane system including drain boards and transition membranes exceed the requirements of the local Building Code.
  - 2. Copy of manufacturers' current ISO certification.
  - 3. References clearly indicating that the membrane manufacturer has successfully completed projects on an annual basis of similar scope and nature for a minimum of

- five (5) years.
- 4. Manufacturers' complete set of standard details for the waterproofing membrane systems showing a continuous plane of water tightness throughout the building envelope.
- C. Submit requests for alternates to this specification a minimum of ten (10) working days prior to bid date. Include a list of 25 projects executed over the past five (5) years.
- D. Acceptable alternates will be confirmed by addendum. Substitute materials not approved in writing prior to tender closing shall not be permitted for use on this project.

# 1.13 WATERPROOFING MEMBRANE WARRANTY

- A. Manufacturer's Material Warranty:
  - 1. Contractor must warranty that the waterproofing membrane and membrane flashings will stay in place and remain leak proof for (2) two years.
  - 2. Waterproofing membrane manufacturer must warranty the membrane and membrane flashings for leak coverage because of faulty materials for a period of [5 years] [10 years] [15 years] [20 years] from the date of substantial completion.

# --CONTACT GMX FOR WARRANTY TERMS AND CONDITIONS DETAILS --

# **PART 2: MATERIALS**

## 2.01 MANUFACTURER

- A. Components and membrane materials must be obtained as a single source from the membrane manufacturer to ensure total system compatibility and integrity.
  - 1. Acceptable Manufacturer: GMX, Inc.

3014 Chamber Drive Monroe, NC 28110 (866) 228-7743 www.gmxco.com

# 2.02 PRODUCTS

- A. PRIMARY WATEPROOFING MEMBRANE (Basis-of-Design)
  - 1. ULTRA-GUARD ELASTOMERIC HB supplied by GMX, Inc. consisting of a fast curing, one component elastomeric, solvent free, moisture cure waterproofing compound designed to provide a seamless waterproofing membrane or a cold alternative to hot applied rubberized membrane systems, and having the following physical properties:
    - a. ASTM C836
    - b. Color: Charcoal Gray
    - c. Miami-Dade NOA (In Process)
    - d. Solids Content: 100%
    - e. Very Low VOC
    - f. Shore A Hardness (ASTM D2240): Minimum 71.0
    - g. Adhesion (ASTM C794): 16 pli.
    - h. Water Vapor Permeance (ASTM E96):
      - 1. Procedure B (Inverted Wet Cup): -1, 0.0550.36 perms.
    - i. Low Temperature Crack Bridging Capability: Pass (ASTM C836-17)
    - j. Viscosity 1,2,10 rpms (cps): 155k, 101k, 40.2k (Brookfield)
    - k. Tensile: 133 psi (ASTM D412)
    - I. Modulus @ 100%(psi): 588 (ASTM D412)

SPEC NOTE: There are options for exposed and non-exposed flashing membranes. For enhanced performance at penetrations, perimeter-flashing, and areas that require UV resistance and traffic-ability.

- B. Flashing Membranes:
  - 1. Sheet flashings consisting of:

Ultra-Guard Flashprene UN is a flashing material, made of uncured neoprene rubber, supplied by GMX, Inc.

- C. Crack Treatment:
  - Ultra-Guard Reinforcing Fabric, consisting of continuous filament, point bonded, spunbond, polyester mat reinforcement sheet as supplied by GMX, Inc.
- D. Fabric Reinforcement:
  - 1. Ultra-Guard Reinforcing Fabric continuous filament, point bonded, spunbond, polyester mat reinforcement sheet as supplied by GMX, Inc.
  - 2. Ultra-Guard HA-Scrim continuous filament spunbonded, chemically treated, polyester bicomponent mat, supplied by GMX, Inc.

SPEC NOTE: Select from the following protection course options. **Exception: When overburden will** consist of asphalt concrete pavement, a minimum 1/8" thick, semi-rigid asphaltic protection board shall be used. **CONTACT GMX** for installation instructions.

- E. Protection Course:
  - TegoBase is a non-exposed highly durable protection course designed to be either embedded directly into the wet membrane or adhered with EFS to fully cured membrane.
  - 2. Prefabricated drain board:
    - a. Refer to 2.02 Products I. Prefabricated Drain Boards
      - 1. Drain-Max by GMX
  - 3. Rigid insulation board:
    - a. Refer to 2.02 Products J. Insulation
- F. Termination Sealant:
  - 1. Termination Sealant shall be Ultra-Guard EFS supplied by GMX, Inc.; a moisture cured, single component sealant.
- G. Securement Bars (By Others):
  - 1. Securement bars shall be continuous aluminum, stainless steel or galvanized metal, 1/8-inch x 1 inch in size and shall be pre-drilled for non-corrosive screw attachment on a maximum of 8 inches centers.

SPEC NOTE: Choose from the following GMX Drain-Max drainage composite boards. Where incorporation of an air layer between the insulation and concrete is desired GMX recommends the use of DB200.

- H. Prefabricated Drain Boards
  - 1. GMX DrainMax Drainage Composite two-part prefabricated geo-composite drain board consisting of a formed polystyrene core covered on one side with a woven or non-woven polypropylene filter fabric:
    - a. GMX DrainMax 680: For horizontal installations requiring 18,000 psi. (Plaza Deck)
    - b. GMX DrainMax 380: For horizontal installations requiring 30,000 psi. (Paver Deck)
    - c. GMX DrainMax 650: For Planters
    - d. GMX DrainMax 50 and Drain-Max 100 with integral root barrier for Green Roof
    - e. GMX DrainMax 200, 220, 500 & 520: For vertical installations requiring high compressive strength and high flow capacity. Select based on specific project requirements.

SPEC NOTE: Choose compressive strength in accordance with project requirements. Not approved for use over Polyiso Insulation.

- I. Insulation
  - 1. Extruded Polystyrene rigid board insulation meeting the following properties:
    - a. ASTM C-578, Type VI or VII
    - b. ASTM E96 Water vapor permeance: 1.0 perms
    - c. Minimum water absorption by volume per ASTM C-272 of 0.1%

- d. Minimum compressive strength to ASTM C-1621 shall be [40], [60] or [100] psi.
- e. Available manufacturers:
  - 1. Owens Corning
  - 2. The DOW Chemical Company

## SPEC NOTE: Filter fabric is optional. Choose from the following products:

- J. Filter Fabric (Optional)
  - 1. Filter Fabric consisting of non-woven geotextile made up of polypropylene fibers.
- K. Roof Ballast
  - 1. Precast Plaza Deck Pavers: Heavyweight, hydraulically pressed, concrete units, square edged, factory cast for use as roof pavers; absorption not greater than 5 percent, ASTM C140; no breakage and maximum 1 percent mass loss when tested for freeze-thaw resistance, ASTM C78 and as follows:
    - a. Size: 24 x 24 x 2 inches.
    - b. Compressive Strength: 7500 psi, minimum ASTM C 140
    - c. Colors and Textures as selected by architect.
    - d. Pedestal Supports: Pedestal supports for pavers shall be in accordance with the paver manufacturer recommendations.
    - e. Available Manufacturers:
      - 1. Greenwise Technologies
      - 2. Hanover Architectural Products, Inc.
      - 3. Wausau Tile, Inc. Terra-Paving Div.
  - 2. Concrete Pour Topping (By Others)
    - a. Contact GMX for waterproofing assembly recommendations.
  - 3. Asphaltic Concrete Overlay (By Others)
    - a. Contact GMX for waterproofing assembly recommendations.
  - 4. Ceramic Tile: Minimum 6" X 6" X ¼' secured by approved thin set mortar directly to TegoBase protection course.

SPEC NOTE: WATERPROOFING MEMBRANE INTEGRITY TEST. As a requirement for meeting certain warranty conditions, the waterproofing membrane must be tested for leaks. The completed waterproofing system may be tested by either flood testing the area or Electric Vector Testing.

## 2.06 WATERPROOFING MEMBRANE INTEGRITY TEST

- A. Electric Vector Testing Quality Assurance Components (Alternate to flood testing)
  - 1. Provide electrical wiring, and other components necessary for a testing agency to perform integrity testing of waterproofing membrane.

# **PART 3: EXECUTION**

# 3.01 EXAMINATION

A. The waterproofing contractor shall examine and determine that surfaces and conditions are ready to accept the work of this section. Commencement of the work or any parts thereof shall mean installer acceptance of the substrate.

# 3.02 PREPARATION

- A. All surfaces must be sound, dry, clean, and free of oil, grease, dirt, excess mortar, frost or other contaminants. Fill spalled areas in substrate to provide an even plane and remove spalling concrete. Remove curing compounds or any foreign matter detrimental to the adhesion of the primary waterproofing membrane or membrane flashings.
- B. Prefabricated expansion joint assemblies should be in place prior to the application of the primary waterproofing assembly.

SPEC NOTE: Edit acceptable substrates per project requirements.

- C. Acceptable substrates:
  - 1. Cast-in-Place Concrete/Composite Deck
    - a. Refer to Section 1.03A.1 of this specification.
  - Precast Concrete
    - a. Refer to Section 1.03A.1 of this specification.
  - 3. Sheathing over Metal Deck [Steel Deck]
    - a. The contractor shall review and determine that all surfaces are in accordance with GMX recommendations to receive the membrane and report any discrepancies prior to installing the waterproofing system.
    - b. Seal substrate joints
      - 1. Center 12-inch-wide crack treatment membrane over joint
      - 2. Embed crack treatment membrane in 60 mils cold fluid applied waterproofing prior to installation on waterproofing membrane.
  - 4. Refer to manufacturer published literature.

# 3.03 INSTALLATION OF WATERPROOFING MEMBRANE

SPEC NOTE: For enhanced performance at penetrations, perimeter-flashing, and areas that require UV resistance and traffic-ability, select liquid applied flashing system.

- A. Detailing/Flashing:
  - All detailing and flashing shall be completed prior to installation of field waterproofing membrane.
  - 2. All detailing and flashing shall be installed per manufacturer standard details.
  - 3. Flashing membranes:
  - 4. Sheet flashing membranes: refer to 2.02 B.
- B. Application of Cold Fluid Applied Waterproofing Membrane:
  - 1. Ensure deck is ready to receive cold fluid applied waterproofing membrane in accordance with published literature.
  - 2. Apply first layer of cold fluid applied waterproofing membrane evenly to a minimum thickness of 60 mils to form a continuous monolithic coating over horizontal and vertical surfaces including previously reinforced areas.
  - 3. Apply Ultra-Guard Reinforcing Fabric sheet and firmly press into first layer of cold fluid applied waterproofing. Overlap reinforcing sheet approximately 1-2 inches ensuring that a layer of cold fluid applied waterproofing membrane is present between each sheet.
  - 4. Apply second layer of cold fluid applied waterproofing membrane over the reinforcing sheet to a minimum thickness of 60 mils providing a total thickness of 120 mils.

SPEC NOTE: Select from the following protection course options. Exception: When overburden will consist of asphaltic concrete pavement, a minimum 1/8" thick, semi-rigid asphaltic protection board shall be used.

- C. Installation of Protection Course:
  - 1. Protection course
    - a. TegoBase protection course:
      - 1. Install onto cold fluid applied waterproofing membrane while still tacky.
      - 2. Where protection course is used end butt all seams.
      - 3. Install the protection course membrane in full continuous sheets, if possible.
    - b. Prefabricated drain board:
      - 1. Refer to Section 3.05
      - 2. Contact manufacturer for recommended installation procedures.
    - c. Insulation:
      - 1. Refer to Section 3.06
      - 2. Contact manufacturer for recommended installation procedures.
    - d. Asphaltic Concrete Pavement

- Contact GMX Technical Services for product recommendations and installation procedures.
- 2. The waterproofing assembly shall be protected from damage and UV in accordance with manufacturer published literature.

SPEC NOTE: WATERPROOFING MEMBRANE INTEGRITY TEST. As a requirement for meeting certain warranty conditions, the waterproofing membrane must be tested for leaks. The completed waterproofing system may be tested by either Electronic Vector Testing or flood testing. GMX, Inc. recommends Electronic Vector Testing in lieu of flood testing.

# 3.04 WATERPROOFING MEMBRANE INTEGRITY TEST

- A. Electronic Vector Testing (EVT) (Alternate to Flood Test):
  - 1. EVT to be conducted upon the completion of the waterproofing assembly and all associated terminations prior to placement of overburden.
  - 2. Contact pre-approved test provider several weeks in advance to coordinate schedule.
  - 3. In the event of a breach of the membrane, repair and retest the system in accordance with project specifications.
  - 4. Report results of testing to the Architect [Consultant] & submit results with the warranty application to GMX Warranty department.
  - 5. No other Work is to proceed without prior direction from the Architect [Consultant].
- B. Flood Test:
  - 1. Flood test to be conducted upon the completion of the waterproofing assembly and all associated terminations and prior to placement of overburden.
  - 2. Provide temporary stops and plugs for the roof drains within the test area.
  - 3. Flood test with minimum 2 inches of water for no less than 24 hours.
  - 4. In the event of a breach of the membrane, repair, and retest the system for no less than 24 hours.
  - 5. Remove temporary stops and plugs.
  - 6. Report results of testing to the Architect [Consultant] & submit results with the warranty application to GMX Warranty department.
  - 7. No other Work is to proceed without prior direction from the Architect [Consultant].

SPEC NOTE: For Miami Dade installation requirements contact GMX Company.

# 3.05 INSTALLATION OF DRAINAGE COMPOSITE

- A. Install drainage composite as indicated on the drawings and in accordance with manufacturer published literature.
- B. Cut fabric to fit tightly around penetrations.
- C. Install Drainage Composite up vertical flashing to the intended finish grade.

# 3.06 INSTALLATION OF INSULATION

- A. Install drainage composite as indicated on the drawings and in accordance with manufacturer published literature.
- B. Loose lay and tightly butt all insulation boards together with a maximum 3/8" wide gap between boards and 3/4" wide gap at projections and penetrations.
- C. Stagger the end joints of the insulation.
- D. Cut the insulation to fit closely to all cants, protrusions, and obstructions.
- E. When installing multiple layers of insulation, the thickest layer is to be installed first. Install the second layer with joints staggered with the layer below.

SPEC NOTE: Filter fabric optional. Coordinate with section 2.02 L.

## 3.07 INSTALLATION OF FILTER FABRIC

- A. Install filter fabric over insulation and overlap side and ends lap six inches. Do not use lengths of less than 6 feet.
- B. Cut filter fabric to fit tightly at penetrations, roof drains, and other openings.
- C. Extend material up vertical junctures where required.

D. Provide temporary ballasting over filter fabric to prevent displacement until permanent covering material installed.

## 3.08 INSTALLATION OF PAVERS

- A. Installation of pavers to be completed after placement of curbs details as indicated on drawings.
- B. Cut pavers to fit irregularly shaped areas and around protrusions as required. Install according to manufacturer's instructions.
- C. Accurately align and place concrete pavers on pedestals to maintain a level upper surface with adjacent units.

# 3.09 FIELD QUALITY CONTROL

- A. Final Observation and Verification:
  - 1. Prior to overburden installation, final inspection of waterproofing assembly shall be carried out by the owner's representative, the contractor, or manufacturer as required by warranty. Contact Manufacturer for warranty requirements.

# 3.10 CLEAN-UP

- A. Promptly as the work proceeds, and upon completion, clean up and remove from the premises all rubbish and surplus materials resulting from the foregoing work.
- B. Clean to the consultant's approval, soiled surfaces, spatters, and damage caused by work of this Section.
- C. Check area drains to ensure cleanliness and proper function, and remove debris, equipment, and excess material from the site.

**END THIS SECTION** 

7 FLUID APPLIED | Membrane Waterproofing





# PRODUCT DESCRIPTION

Ultra-Guard® Elastomeric Coating is a single-component, 100% solid, moisture-curable waterproof membrane. This cold liquid-applied formula is solven-free and compliant with all known environmental and OSHA requirements. It can be used in confined spaces with standard personal protection equipment. Ultra-Guard® Elastomeric Coating cures to an elastomeric rubber that is resistant to thermal shock. It will not crack in extreme cold or slump due to softening at high temperatures like conventional asphalt or coal tar based coatings often will.

## **Recommended Uses:**

For use in above and below grade applications

# In Above Grade Applications:

 Ultra-Guard® Elastomeric Coating can be used to seal parapets, plaza decks, green roof systems and waterproof planter boxes.

# In Below Grade Applications:

- Ultra-Guard® Elastomeric Coating is ideal as a positive-side waterproofing for sealing foundations.
- Ultra-Guard® Elastomeric Coating can also be used for between slab waterproofing, equipment wells, and other underground construction.

# Advantages:

- Moisture cure
- High solids, minimal shrinkage
- No outgassing on damp surfaces
- Can be applied up to 120 mils in one coat on horizontal surfaces (60 mils on vertical surfaces)
- Wet film thickness equals dry film thickness
- Fast setting
- Non-flammable
- Low odor
- Single component
- Solvent free
- Tin free

# APPLICATION INSTRUCTIONS

# **Horizontal Application:**

- Apply Ultra-Guard<sup>®</sup> Elastomeric Coating over cleaned flange of drains, taking care not to fill weep holes.
- Drain flange of 3" minimum width recommended.
- If surface is pitted, prime with a 10-mil coat of Ultra-Guard® Elastomeric Coating to fill in the irregularities or voids that might cause pin-holing.
- Using a roller, trowel, or brush apply in a single coat up to a 120-mil thickness.

# **Vertical Application:**

- If surface is pitted, prime with a 10-mil coat of Ultra-Guard® Elastomeric Coating to fill in the irregularities or voids that might cause pin-holing.
- Using a roller, trowel, or brush, apply in a single coat up to a 60-mil thickness.

# **STORAGE**

- Store original, unopened containers at 70°F / 21°C with 50% relative humidity.
- Protect unopened containers from water, heat and direct sunlight.
- Elevated temperatures will reduce shelf life.

# SHELF LIFE

- Pails have a six-month shelf life from date of manufacture when stored at 70°F / 21°C with 50% relative humidity.
- High temperature and high relative humidity may significantly reduce shelf life.

# **CLEAN-UP**

- Wet sealant can be removed using a solvent such as alcohol or mineral spirits.
- Cured material can be removed by abrading or scraping the substrate.

## Limitations:

- In areas where prolonged chemical exposure is anticipated, contact Technical Services for recommendations.
- Do not use in above grade applications without a protective UV barrier.
- Do not store in elevated temperatures.
- Remove all coatings and sealants before application.
- Do not apply at temperatures below 40°F.
- Do not thin with solvents, water or foreign material.
- This product is specifically designed to be compatible with cementitious substrates, contact Technical Services for recommendations regarding other suitable substrates.
- This product may be applied to damp substrates as long as there is no transfer of moisture to the touch of a hand.
- This product is NOT intended for use in permanently exposed exterior applications. All above grade applications will require some sort of UV barrier.
- Not intended for use without a drainage plane.

A Garland Industries Subsidiary



7 FLUID APPLIED | Membrane Waterproofing

| TECHNICAL SERVICES   PRODUCT SPECIFICATIONS Type: Ultra-Guard Elastomeric Coating |                                      |                                |  |
|---|--------------------------------------|--------------------------------|--|
| Test  | Measurement                          | Method                         |  |
| Shore A   | 25                                   | ASTM D2240                     |  |
| Tensile (psi)   | 133                                  | ASTM D412                      |  |
| Elongation (%)  | 588                                  | ASTM D412                      |  |
| Modulus @ 100% (psi)  | 41                                   | ASTM D412                      |  |
| Permeability (perm-inch)  | 0.0330                               | ASTM E96 Method A<br>@ 60 mils |  |
| Viscosity 1,2,10 rpms (cps)   | 155k, 101k, 40.2k                    | Brookfield                     |  |
| Skin Formation (min)  | 120                                  | NA                             |  |
| Extensibility After Heat<br>Age   | *NA                                  | ASTM C836                      |  |
| Low Temp. Crack Bridging  | *NA                                  | ASTM C836                      |  |
| Hydrostatic Head Resistance   | *NA                                  | ASTM C836                      |  |
| Water Uptake (%wt.)   | 11                                   | 4 wks submerged<br>@ 50°C      |  |
| Wet Adhesion to Mortar (pli)  | 12.86                                | ASTM C794 (1 pli = passing)    |  |
| Dry Adhesion to Mortar (pli)  | 15.84                                | ASTM C794                      |  |
| Coverage  | 26 ft.sq/US Gal.<br>13 ft.Sq/US Gal. | @ 60 mils<br>@ 120 mils        |  |





GMX, Inc. 3014 Chamber Dr. Monroe, NC 28110 Toll Free: 866-228-7743 www.gmxwaterproofing.com

7 FLUID APPLIED | Membrane Waterproofing





**APPLICATION GUIDE** 

All surfaces must be sound, dry, clean and free of oil, grease, dirt, excess mortar, frost or other contaminants. Fill spalled areas in substrate to provide an even plane and remove spalling concrete. Remove curing compounds or any foreign matter detrimental to the adhesion of the primary waterproofing membrane or membrane flashings. Masonry joints should be flush to the surface of the units or a continuous parge coat of non shrink mortar should be applied.

New concrete should be cured for a minimum of 3 days and must be free from surface water before waterproofing membranes are applied. Concrete in vented metal pan decks must be cured for a minimum of seven days.

Concrete shall have a wood float finish. Decks with a steel float finish must be sandblasted or equivalent prior to the application of the waterproofing system.

Prefabricated expansion joint assemblies should be in place prior to the application of the primary waterproofing assembly.

# **Acceptable Substrates:**

- Cast-in-Place Concrete/Composite Deck
- Precast Concrete
- Sheathing over Metal Deck (Steel Deck)
- Exterior Grade Plywood (not OSB)
- AdvanTech(<sup>TM</sup>) (in conditioned deck applications only, see Technical Letter)
- Masonry Units
- Exterior Grade Sheathing (above grade only)
- Metal (test for adhesion, prep surface if adhesion is unacceptable)
- Contact GMX for guidance on any other substrates.

The contractor shall review and determine that all surfaces are in accordance with GMX's recommendations to receive the membrane and request technical assistance for all discrepancies prior to installing the waterproofing system.

# **Seal all Substrate Joints:**

- 1. Center 12 inch wide crack treatment membrane over joint
- 2. Embed crack treatment membrane in 60 mils cold fluid applied waterproofing prior to installation on waterproofing membrane. Refer to manufacturer published literature.

Form Release Agents: Contact GMX

**Cast-in-Place Concrete/Composite Deck:** Precast Concrete Strength/Density: Minimum 2,500 psi (17,235 kPa) compressive strength and minimum 115 pcf (1842 kg/m3) density

**Finish:** Broom, wood-float, or wood-troweled equivalent finish. Steel float finishes are too smooth and compromise the adhesion of the waterproofing system. Decks with a steel float finish must be sandblasted or equivalent prior to the application of the waterproofing system.

**Concrete Hydration (Cure):** Method of Cure: Water cure, wet coverings, paper sheets, plastic sheets or approved liquid curing compound (sodium silicate preferred).

**Duration of Cure/Dry:** Recommend 24 hours minimum after concrete forms have been removed. Contact GMX when less than the minimum is desired. <u>Lightweight insulating concrete is not an acceptable substrate.</u>

**Structural Lightweight Concrete:** Metal pan decks to which concrete is poured shall be venting type. Contact GMX if metal pan deck is not <u>venting type.</u> Strength/Density: Minimum 2,500 psi (17,235 kPa) compressive strength and minimum 115 pcf (1842 kg/m3) density.

**Finish:** Broom, wood-float, or wood-troweled equivalent finish. Steel float finishes are too smooth and compromise the adhesion of the waterproofing system. Decks with a steel float finish must be sandblasted or equivalent prior to the application of the waterproofing system.

**Concrete Hydration (Cure):** Method of Cure: Water cure, wet coverings, paper sheets, plastic sheets or approved liquid curing compound (sodium silicate preferred).

**Duration of Cure/Dry:** Recommend 7 days minimum after concrete forms have been removed. Contact GMX when less than the minimum is desired.

For wooden substrates, contact GMX for specific recommendations.

# PROJECT/SITE CONDITIONS

**Environmental Requirements:** No Work shall be performed during rain or inclement weather. No Work shall be performed on frost or wet covered surfaces.

**Protection:** Temporary protection of the membrane shall be provided to prevent mechanical damage or damage from spillage of oil or solvents until such time as permanent protection is installed.

Do not permit traffic of any kind over unprotected waterproof membranes. Apply protection course as soon as possible in accordance with published literature after waterproofing membrane installation.

Ensure all preparation work is complete prior to installing waterproofing membrane.

# FIELD QUALITY CONTROL

**Final Observation and Verification:** Prior to overburden installation, final inspection of waterproofing assembly shall be carried out by the owner's representative, the contractor, or manufacturer as required by warranty. Contact manufacturer for warranty requirements.

7 FLUID APPLIED | Membrane Waterproofing





# **CLEAN-UP**

Promptly as the work proceeds, and upon completion, clean up and remove from the premises all rubbish and surplus materials resulting from the foregoing work.

Clean to the consultant's approval, soiled surfaces, spatters, and damage caused by work of this Section.

Check area drains to ensure cleanliness and proper function, and remove debris, equipment, and excess material from the site.

# Recommendations:

# SINGLE COAT SYSTEMS

# **Horizontal Application:**

- Apply Ultra-Guard® Elastomeric HB over cleaned flange of drains, taking care not to fill weep holes.
- Drain flange of 3" minimum width recommended.
- Apply details: wall to deck, inside/outside corners, joints treatments, etc. before installing the membrane on the deck.
- If surface is pitted, prime with a 10-mil coat of Ultra-Guard® Elastomeric HB to fill in the irregularities or voids that might cause pin-holing. Any pitting large enough to place a thumb into should be patched.
- Using a ½" notched squeegee, roller, trowel, in a single coat up to a 120-mil thickness.
- Squeegee application is optimal for horizontal application.
- Plan the installation so that you can progress across the deck without walking on the installed membrane, if possible.
- Work in strips across the deck that are an inch or two wider than the reinforcing fabric (if installed).
- The membrane can be applied wet on wet or wet on dry.
- Flood test after allowing the assembly to cure for 7-10 days.
   Electronic Vector Testing is recommended.
- See GMX website for construction details.

# **Vertical Application:**

- If surface is pitted, prime with a 10-mil coat of Ultra-Guard®
   Elastomeric HB to fill in the irregularities or voids that might
   cause pin-holing. Any pitting large enough to place a thumb
   into, should be patched.
- Substrate must be clean and continuous, fill voids, unconsolidated concrete, etc. with non-shrinking mortar.
- A parge coat of non-shrinking mortar can also correct deficiencies in a block wall.
- Remove all fins and windows by grinding.
- Apply using a roller, trowel, or brush, apply in a single coat of a minimum 60-mil thickness.
- A fabric reinforced cant at the wall to footer is recommended.
- Fabric reinforcement is recommended at joints between dissimilar materials.
- Ultra-Guard Elastomeric HB is perfect for waterproofing Insulated Concrete Forms.
- See GMX website for construction details.

#### **Priming:**

- Priming is not required for adhesion to dry, damp, or non-porous concrete.
- In the case a pinhole and blister problem occur, the cause is likely air and/or moisture vapors being trapped or emitted from the concrete and or environmental conditions.
- It is recommended that a thin-mil coat application be applied to remove trapped air/vapor.
- This thin-mil application is intended to advocate and establish a constant bond with the substrate.

# HIGH BUILD SYSTEMS

# **Horizontal Applications:**

- Start by inspecting the substrate for deficiencies. Make any corrections necessary before starting the installation.
- Begin by attending to details first, before you start the installation of the deck.
- Pour membrane onto surface and spread evenly with a ¼" notched squeegee or roller to a nominal 60 mils.
- Work in strips across the deck allowing for a little wider band of membrane than the width of the fabric. Once you have gaged 60 mils. on the first course, immediately embed fabric into the wet membrane. Use the flat edge of the squeegee, or a broom, to smooth out any wrinkles and bubbles. Apply the second coat at 60 mils., in the same manner as the first, then back-roll with a %" nap roller to smooth out the material. Apply TegoBase directly into the wet membrane.
- Begin the second stripe across, repeating the steps. Work your way off the deck.
- Install a barricade and prevent traffic for 24 to 72 hours, depending on the temperature and humidity.
- If a flood test is required, we recommend waiting a minimum of 7-10 days after completion of the installation to perform the test. In that time, the membrane should complete the crossbonds and be at peak strength. Electronic Vector Testing is recommended.

# **Vertical Applications:**

- Inspect the wall for deficiencies and make the necessary repairs.
- Begin by installing the detail cant and membrane at the footer.
- Apply with an appropriate airless pump, %" nap roller, trowel or brush to a nominal 60 mils.
- Let the first course set (usually 24 hours), then apply the second 60 mil course. Install drainage or protection course once the second course has cured.
- Drainage or protection can be adhered with a termination bar, pins or spray adhesive that is compatible with HB.

# **PRECAUTIONS**

- Wearing proper PPE is advised, direct contact may cause skin and eye irritation.
- Do not thin.
- Do not clean up with water.

GMX
A Garland Industries Subsidiary



7 FLUID APPLIED | Membrane Waterproofing

#### **Hot Weather/High Humidity:**

 To minimize blisters from vapor drive, it is best to schedule installation when temps are falling or install multiple coats of reduced mil. thickness.

# **Cold Weather/Low Humidity:**

 For ease of application, material may be kept warm at 90°F, prior to and during installation. Contact GMX for specific installation recommendations in cold or dry weather.

# Theoretical Maximum Yield per Gallon:

- 60 mils = 26 sq. ft.
- 120 mils = 13 sq. ft.

Surface profile and waste will impact yield.

# SUGGESTED TOOLS

- ¼" squeegee for 60 mil. thickness
- ½" squeegee for 120 mil. thickness
- Razor knife and straight edge to cut TegoBase
- Gloves for TegoBase (contains glass fibers)
- Blower or broom to clean surfaces
- Scissors to cut fabric
- 6" putty knife for rapid installation of membrane at details
- Icing blade to remove membrane from bottom and sides of bucket
- Orange-based solvent for cleanup
- Paper towels for cleanup
- Builders paper (Trimaco® Masking Paper) to protect walk off surfaces
- Table to prepare materials





GMX, Inc. 3014 Chamber Dr. Monroe, NC 28110 Toll Free: 866-228-7743 www.gmxwaterproofing.com

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperatures, application methods, test methods, actual site conditions and curing conditions. Installation conditions and methods can impact product performance. Consult your local GMX Sales Representative for Questions.

PRIOR TO EACH USE OF ANY GMX PRODUCT, THE USER MUST ALWAYS READ AND FOLLOW THE WARNINGS & INSTRUCTIONS ON THE PRODUCT'S MOST CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET WHICH ARE AVAILABLE ONLINE AT WWW.GMXCO.COM OR BY CALLING GMX AT 866-228-7743. NOTHING CONTAINED IN ANY GMX MATERIALS RELIEVES THE USER OF THE OBLIGATION TO READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS FOR EACH GMX PRODUCT AS SET FORTH IN THE CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET PRIOR TO PRODUCT USE.

# **TegoBase**

7 FLUID APPLIED | Membrane Waterproofing

# PRODUCT DESCRIPTION

TegoBase is a lightweight non-asphaltic protection board/base sheet with excellent weatherability, which enhances the overall flexibility and fatigue resistance of both hot and cold fluid applied waterproofing systems. TegoBase is composed of recycled plastic and binders, reinforced with high strength fiberglass.

- System compatibility
- Ultra-Guard HA551 System
- Ultra-Guard Elastomeric HB System
- **Excellent flexibility**
- **Excellent** weatherability
- Easy to apply
- Excellent dimensional stability

Storage and Handling Considerations: Sheets should be stored under cover away from direct exposure to the elements until immediately before use. If it becomes necessary to store material on the job site or roof deck, units should be covered with an opaque tarpaulin or similar cover. (Clear or black protective coverings are not acceptable.) Units should also be stored elevated from the roof deck by placement on a pallet. If possible, materials should be stored inside away from direct sunlight at the job site. Do not stack units more than two pallets high.

# **APPLICATION**

TegoBase is embedded directly into the hot Ultra-Guard HA 551 membrane in horizontal deck applications (or vertically if called for in the design), with sides and ends abutted, as a protection course. When used in a detail, follow those installation instructions. TegoBase is installed with the most current published application instructions for Ultra-Guard Elastomeric HB system.

# AVAILABILITY, WARRANTY AND COST

GMX materials are produced in and shipped from our Monroe, NC plant. For the name and number of the nearest GMX representative and/or pricing, call us at 866-228-7743.

# HIGH PERFORMANCE DURABILITY

GMX warrants its material to be from defects at the time of installation and will offer a commercial warranty for 10 years provided our materials are applied in accordance with the published specifications in effect at the time of installation. For specific warranty terms and conditions, contact your local GMX representative.

# **TECHNICAL SERVICES**

Your local GMX representative is available to assist you in selecting the appropriate product and to provide on-site application assistance. For further information, please contact our Technical Service Dept. at 866-228-7743.

| Type. Tegobase    |                         |
|-------------------|-------------------------|
|                   |                         |
| Sheet Dimensions  | 3 ft. X 4 ft.           |
| Water Absorption  | < 3% maximum            |
| Approx. Coverage  | 12 ft.2                 |
| Top Surface       | Recycled Plastic Fibers |
| Bottom Surface    | Recycled Plastic Fibers |
| Nominal Thickness | 3.5 mm                  |
| Nominal Weight    | 3.5 IBS                 |
|                   |                         |

Fiberglass fibers

365 N (82.1bf.)

Regional Materials: 20% Extracted,

Processed and Manufactured Regionally

N/A

Pass

TECHNICAL DATA | PRODUCT SPECIFICATIONS

| Resistance to Decay<br>(ASTM D-6507) | Pass   |  |
|--------------------------------------|--|--|
| May help to contribute               | to LEED® credits:  |  |
| EA Credit 1:                         | Optimize Energy Performance  |  |
| EQ Credit 3.1:                       | Construction IAQ Management Plan: During Construction                    |  |
| EQ Credit 4.2:                       | Low Emitting Materials: Paints and Coatings                              |  |
| MR Credit 5.1:                       | Regional Materials: 10% Extracted, Processed and Manufactured Regionally |  |

| SHIPPING INFORMATION  |                        |  |
|-----------------------|------------------------|--|
| Proper Shipping Name: | Non-regulated material |  |
| Hazard Class:         | Not Applicable         |  |
| Identification:       | Not Applicable         |  |
| Packaging Group:      | Not Applicable         |  |

**NOTE:** Applies to DOT-U.S./ MOT-CANADA/INT'L (ALL MODES).

Reinforcement Softening Point

(ASTM D-36)

Cold Flexibility

(ASTM D-5147)

(ASTM D-6505)

MR Credit 5.2:

**Puncture Strength** 







GMX, Inc. 3014 Chamber Dr. Monroe, NC 28110 Toll Free: 866-228-7743 www.gmxwaterproofing.com

LEED® Buildings and Leadership in Energy and Environmental Design® are trademarks of the U.S. Green Building Council. The Leadership in Energy and Environmental Design (LEED) Green Building Rating System is a voluntary, consensus-building national standard that was initiated by the U.S. Green Building Council (USGBC) for developing high-performance sustainable buildings.

# **ULTRA-GUARD GB**

7 FLUID APPLIED | Membrane Waterproofing



# PRODUCT DESCRIPTION

Ultra-Guard Reinforcing Fabric is a continuous filament, point bonded, spunbond, polyester mat that is specifically formulated to accept hot or cold Fluid applied waterproofing membranes as a bonding adhesive. The fabric is flexible and easily conforms to complex geometries for detailing. Ultra-Guard Reinforcing Fabric is the preferred material in the GMX family of fluid applied membranes as it provides performance at an excellent price point.

# PRODUCT ADVANTAGES

**Excellent Puncture and Abrasion Resistance:** The Ultra-Guard Reinforcing Fabric is polyester. The polyester mat provides excellent puncture resistance and elongation capability. The fiberglass fabric imparts additional tensile strength and fire resistance.

**Inorganic, Rot-Proof Protection:** Ultra-Guard Reinforcing Fabric is an inorganic, rot-proof felt. It will not wick or absorb moisture when properly coated with waterproofing. As a result, the risk of felt ply delamination is minimized and a stronger, more secure roof assembly is produced.

# INSTALLATION

Application: After base layer of fluid applied waterproofing is applied, immediately roll in Ultra-Guard Reinforcing Fabric into the fluid applied waterproofing membrane. When reinforcement is embedded, apply top layer of the membrane. See Application Guide for general application guidelines, and project specifications for specific application instructions.

# **AVAILABILITY AND COST**

GMX materials are produced in and shipped from our Monroe, NC plant. For the name and number of the nearest GMX representative and/or pricing, call us at 866-228-7743.

# WARRANTY

GMX warrants its material to be from defects at the time of installation and will offer a commercial warranty for 10 years provided our materials are applied in accordance with the published specifications in effect at the time of installation. For specific warranty terms and conditions, contact your local GMX representative.

# **TECHNICAL SERVICES**

Your local GMX representative is available to assist you in selecting the appropriate product and to provide on site application assistance. For further information, please contact our Technical Service Dept. at 866-228-7743.

| TECHNICAL DATA   PRODUCT SPECIFICATIONS Type: Ultra-Guard Reinforcing Fabric |                                  |  |  |
|--|----------------------------------|--|--|
| Tensile Strength<br>(ASTM D 5035)  | MD 42 lbf./in.<br>CD 22 lbf./in. |  |  |
| Tear Strength<br>(ASTM D 5733)   | MD 10 lbf./in.<br>CD 12 lbf./in. |  |  |
| Elongation<br>(ASTM D 5035)  | MD 10 LB.<br>CD 12 LB.           |  |  |
| Weight per Area<br>(ASTM D 3776)   | 2.0 oz./yd2                      |  |  |
| Roll Sizes   | 36" x 600' and 9" x 600'         |  |  |
| Weight   | 30 lb.                           |  |  |
| Nominal Thickness  | 12 MILS.                         |  |  |

| May help to contribute to LEED® credits: |   |  |
|--|---|--|
| EA Credit 1:                             | Optimize Energy Performance   |  |
| EQ Credit 3.1:                           | Construction IAQ Management Plan: During Construction                       |  |
| EQ Credit 4.2:                           | Low Emitting Materials: Paints and Coatings                                 |  |
| MR Credit 5.1:                           | Regional Materials: 10% Extracted, Processed and Manufactured Regionally    |  |
| MR Credit 5.2:                           | Regional Materials: 20% Extracted,<br>Processed and Manufactured Regionally |  |

1,800 sq. ft. aprox.

12 rolls/pallet

| SHIPPING INFORMATION  |                            |  |
|-----------------------|----------------------------|--|
| Proper Shipping Name: | Polyester Non-woven Fabric |  |
| Hazard Class:         | Not Applicable             |  |
| Identification:       | Not Applicable             |  |
| Packaging Group:      | Not Applicable             |  |

NOTE: Applies to DOT-U.S./ MOT-CANADA/INT'L (ALL MODES)





Net Coverage

**Packaging** 



GMX, Inc. 3014 Chamber Dr. Monroe, NC 28110 Toll Free: 866-228-7743 www.gmxwaterproofing.com

LEED® Buildings and Leadership in Energy and Environmental Design® are trademarks of the U.S. Green Building Council. The Leadership in Energy and Environmental Design (LEED) Green Building Rating System is a voluntary, consensus-building national standard that was initiated by the U.S. Green Building Council (USGBC) for developing high-performance sustainable buildings.

# **ULTRA-GUARD EFS**

Multi-purpose Sealant



# PRODUCT DESCRIPTION

Ultra-Guard EFS is a high-performance joint sealant for a wide range of construction applications. Ultra-Guard EFS delivers tough, elastic sealing performance, for joints requiring compression and extension greater than 35%.

# PRODUCT INFORMATION: FEATURES & BENEFITS

- Solvent and isocyanate free, 100% solids
- Non-silicone
- Non-flammable
- Fast-curing
- Primerless bonding to most surfaces
- Paint compatible
- Low odor
- Extremely low shrinkage
- Non-staining
- Mildew resistant

# STANDARDS & COMPLIANCE

- May contribute to LEED V4 EQ Material Resource Credit 4.1 -Adhesives and Sealants
- ASTM C920, Type S, Grade NS, Class 35 Uses NT, T, G, A & O
- Federal Specification TT-S-00230-C Type II, Class B
- Corps of Engineers CRD-C-541, Type II, Class B
- Conforms to OTC Rule for Sealants and Caulks
- Meets requirements of California Regs: CARB, BAAQMD and SCAQMD
- Conforms to USDA Requirements for Non-food Contact

# **COMMON APPLICATIONS**

- Roofing
- Parapets
- Window and door frames
- Block and Masonry
- Expansion Joints
- Siding
- Weather Sealing
- Cove Joints
- Below-grade Waterproofing penetrations and transition details

# HIGH PERFORMANCE DURABILITY

- Ultra-Guard EFS can be installed on damp surfaces which is defined as when no moisture is transferred to the skin when the substrate is touched.
- The cured bead exhibits excellent long-term adhesion to the porous surfaces.
- Does not dry or become brittle.
- Low odor, ideal for indoor and outdoor use

# TYPICAL PROPERTIES

Please contact your GMX Sales Representative before writing specifications around this product. Product properties are as follows:

| Property   | Typical Value  | Units  | Test Method        |
|--|--|--|--------------------|
| VOC's  | 34.5 g/L   |  | EPA Test Method 24 |
| Skinover time<br>@ 50% R.H. 70<br>deg F                                    | 30   | Min.   | ASTM C679          |
| Density  | 127  | #/gal  |                    |
| Hardness   | 50   | Shore A  |                    |
| Shear Strength   | 185.7  | psi  | ASTM D1002         |
| Peel Strength ABS Plastic Aluminum Mortar Glass Pine PVC Cold Rolled Steel | 12.7<br>25.1<br>25.7<br>26.7<br>24.0<br>25.8<br>23.9 | lbf/in.  | ASTM D903          |
| Tensile  | 268  | psi  | ASTM D412          |
| Elongation at<br>Break   | 259  | %  | ASTM D412          |
| Chemistry  | Hybrid Polymer                                       |  |                    |
| Movement   | +/- 35%  |  | ASTM C920          |
| Shrinkage  | 0%   |  |                    |
| Service Tem-<br>perature   | 40°F - 200°F   |  |                    |
| Viscosity  | 2,730,000<br>1,555,000<br>460,000                    | cps @ 1<br>rpm cps<br>@ 2 rpm<br>cps @ 10<br>rpm | ASTM D2196-10      |

Ultra-Guard EFS typical values represent data from multiple batches. Values will be refreshed, as necessary, upon data collection from additional campaigns and long-term variability discernment.





GMX, Inc. 3014 Chamber Dr. Monroe, NC 28110 Toll Free: 866-228-7743 www.gmxwaterproofing.com

# **ULTRA-GUARD EFS**

Multi-purpose Sealant



# **ULTRA-GUARD EFS**

# **APPLICATION**

Remove all dirt, oil, loose paint, frost and other contamination from all working surfaces. Maintain Ultra-Guard EFS at room temperature before applying to ensure easy gunning and tooling. Test and evaluate to ensure adequate adhesion. Carefully gun the sealant with a smooth, continuous bead. If tooling is needed, do so within fifteen minutes of application.

# **CONCRETE**

Prior to application remove any residual contamination by mechanical abrasion, sand blast- ing or power washing. On green concrete, remove all release agents and loose concrete. Dry all visible and/or standing water. Install an appropriate backer rod to avoid three-point bonding.

# **METAL**

Prepare all metal to ensure maximum adhesion. Remove all rust, scale and residue using a wire brush. Remove films, loose or inappropriate coatings and oils with an appropriate solvent such as alcohol.

\*GMX recommends that coated substrates be tested for proper adhesion prior to starting a project to determine suitability for use.

# WOOD

Wood should be clean, sound and dry prior to sealant application. Allow treated wood to weather for six months prior to application. Remove all coatings and paint to ensure proper adhesion. Ultra-Guard EFS is not recommended for use on fire retardant lumber.

# **PRIMING**

In most applications Ultra-Guard EFS will not require a primer. However, certain substrates may require a primer to ensure a long-lasting bond and weatherproof seal. It is the applicator's responsibility to determine whether or not a primer is needed in their specific application.

# **CLEAN-UP**

Clean tools and any uncured adhesive with mild solvent such as mineral spirits.

# MATERIAL STORAGE/DISPOSAL

Store securely between 60° F - 80° F in unopened container. Recommended shelf life is 12 months from date of manufacture on bottom of tube. Keep tube tightly sealed. Dispose of contents/container in accordance with Local/Regional/National/International Regulations. Refer to Safety Data Sheet (SDS) for further information.

# SHELF LIFE AND STORAGE

The shelf life is 12 months for an unopened container from the date of manufacture. Reference the date of manufacture. YYMMDD ex. 190522 is May 22, 2019.

# **COLORS**

Available only in BLACK



# **PACKAGING**

There are 12, 20 oz. sausages in a case.

# WARRANTY

GMX warrants that our products are manufactured and conform to strict quality assurance specifications. For warranty information visit: www.gmxwaterproofing.com/terms

# **LIMITATIONS**

Ultra-Guard EFS should not be used in applications in which it will be permanently exposed to liquid water.

# PRECAUTIONARY STATEMENTS

Do not use until all instructions and safety precautions have been read and understood. Wear protective gloves, protective clothing and eye protection. Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace.

IF ON SKIN: Wash exposed body areas with soap and water. IF IN EYES: Rinse with water, remove contact lenses and continue rinsing. If exposed or concerned get medical advice/attention. Refer to Safety Data Sheet (SDS) for further information.





GMX, Inc. 3014 Chamber Dr. Monroe, NC 28110 Toll Free: 866-228-7743 www.gmxwaterproofing.com





DrainMax prefabricated drains combine a formed polymeric drainage core with a filter fabric bonded to one side. The filter fabric is bonded to each dimple to prevent soil intrusion into the core flow channels while allowing water to freely enter the drain core. The core provides an uninterrupted path for water to flow to designated drainage exits.

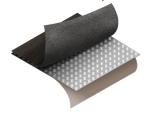
The GMX DrainMax Sheet & Total Drain are an economical solution for reducing hydrostatic pressure against structures and protecting & enhancing the life and performance of waterproofing membranes.

| GMX PRODUCT<br>NAME           |             |                    | DRAINMAX<br>200 | DRAINMAX<br>220 | DRAINMAX<br>380 | DRAINMAX<br>500 | DRAINMAX<br>520 | DRAINMAX<br>650 | DRAINMAX<br>680 | DRAINMAX<br>BASE DRAIN |
|-------------------------------|-------------|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------------|
| PHYSICAL<br>PROPERTIES        | Test Method | Unit of<br>Measure | Typical Values         |
| GEOTEXTILE                    |             |                    |                 |                 |                 |                 |                 |                 |                 |                        |
| Material <sup>2</sup>         |             |                    | PP, NPNW               |
| West Ele Best                 | D 4404      | gpm/ft²            | 165             | 165             | 100             | 165             | 165             | 145             | 100             | 150                    |
| Water Flow Rate               | D 4491      | Lpm/m <sup>2</sup> | 6,724           | 6,724           | 4,075           | 6,724           | 6,724           | 5,909           | 4,075           | 6,113                  |
| Grab Tensile Strength         | D 4632      | lbs                | 100             | 100             | 205             | 100             | 100             | 365             | 205             | 115                    |
| Grab Terisile Strength        | D 4032      | N                  | 445             | 445             | 912             | 445             | 445             | 1,624           | 912             | 512                    |
| CBR Puncture Strength         | D 6241      | lbs                | 275             | 275             | 580             | 275             | 275             | 675             | 580             | 320                    |
| OBN Pulicture Streligtii      | D 6241      | N                  | 1,220           | 1,220           | 2,580           | 1,220           | 1,220           | 3,004           | 2,580           | 1,423                  |
| T                             | D 4500      | lbs                | 50              | 50              | 80              | 50              | 50              | 115             | 80              | 50                     |
| Trapezoidal Tear              | D 4533      | N                  | 222             | 222             | 356             | 222             | 222             | 512             | 356             | 222                    |
| A Oi Ci                       | D 4751      | sieve              | 70              | 70              | 80              | 70              | 70              | 40              | 80              | 70                     |
| Apparent Opening Size         | D 4751      | mm                 | 0.212           | 0.212           | 0.180           | 0.212           | 0.212           | 0.425           | 0.180           | 0.212                  |
| Grab Elongation               | D 4632      | %                  | 65              | 65              | 60              | 65              | 65              | 24              | 60              | 70                     |
| UV Resistance                 | D 4355      | % / 500 Hrs        | 70              | 70              | 70              | 70              | 70              | 90              | 70              | 70                     |
| Permittivity                  | D 4491      | sec-1              | 2.4             | 2.4             | 1.5             | 2.4             | 2.4             | 2.1             | 1.5             | 2.4                    |
| CORE                          |             |                    |                 |                 |                 |                 |                 |                 |                 |                        |
| Tital                         | D 5100      | in                 | 0.25            | 0.25            | 0.25            | 0.40            | 0.40            | 0.40            | 0.40            | 0.44 / 1.0             |
| Thickness                     | D 5199      | mm                 | 6.35            | 6.35            | 6.35            | 10              | 10              | 10              | 10              | 10 / 25.4              |
| Compressive Strength          | D 1621      | psf                | 11,000          | 11,000          | 30,000          | 15,000          | 15,000          | 18,000          | 18,000          | 9,000                  |
| Compressive Strength          | D 6364      | kPa                | 527             | 527             | 1,436           | 718             | 718             | 862             | 862             | 431                    |
| In-Plane Flow Rate 4          | D 4716      | gpm/ft             | 12.5            | 12.5            | 13              | 18              | 18              | 21              | 21              | 21 @ HG = 0.1          |
| III-I laile I low Hate        | D 4710      | Lpm/m              | 155             | 155             | 161             | 224             | 224             | 261             | 261             | 261 @ HG = 0.1         |
| Backing Film for Softer N     | Membranes   |                    | No                     |
| COMPOSITE                     |             |                    |                 |                 |                 |                 |                 |                 |                 |                        |
| Recycled Content <sup>5</sup> | CALCULATED  | %                  | > 70            | > 70            | > 70            | > 70            | > 70            | > 70            | > 70            | > 70                   |
| Roll Size                     | MEASURED    | ft                 | 4 x 50                 |
| Roll Weight <sup>6</sup>      | MEASURED    | lbs                | 28              | 29              | 49              | 38              | 39              | 48              | 53              | 27                     |

DrainMax 200, 380, 500, 650, 680



DrainMax 220, 520



DrainMax Base Drain



GMX, Inc.

3014 Chamber Dr. Monroe, NC 28110 Toll Free: 866-228-7743 www.gmxwaterproofing.com

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperatures, application methods, test methods, actual site conditions and curing conditions. Installation conditions and methods can impact product performance. Consult your local GMX Sales Representative for Questions.

Unless otherwise noted, all physical and performance properties listed are Typical Values as defined in ASTM D4439.
 Please contact your GMX Account Manager for the most current technical information available.

<sup>2.</sup> PP = Polypropylene: NPNW = Needle-Punched Nonwoven: WM = Woven Monofilament: for use in planters

<sup>3.</sup> AOS value listed is Maximum Average Roll Valu

<sup>4.</sup> In plane flow rate measured under 3,600 psf (172 kPa) compressive load at hydraulic gradient of 1.0

<sup>5.</sup> Pre-Consumer recycled content by weight

<sup>6.</sup> Approximate packaged roll weight

# DRAINMAX® 220





## THREE-PART GEO-TEXTILE COMPOSITE DRAINAGE

# **DESCRIPTION**

DrainMax® 220 prefabricated sheet drain is composed of a dimpled polymeric core with a nonwoven geotextile bonded to the dimple side and a polymeric film bonded to the back side. The geotextile allows water to pass through while retaining backfill materials. The solid core allows water collection from one side and provides a continuous flow path to designated drainage exits. The polymeric backing film provides system compatibility with softer waterproofing membranes. DrainMax® 220 is an economical solution for single-sided subsurface vertical drainage applications requiring moderate strength and flow capacity while providing additional protection for softer waterproofing membranes.

| TECHNICAL DATA                           |              |   |  |
|--|--------------|---|--|
| Physical Properties 1                    | Test Method  | Typical Values                                      |  |
| GEOTEXTILE                               |              |   |  |
| Material <sup>2</sup>                    |              | PP, NPNW  |  |
| Water Flow Rate                          | ASTM D4491   | 165 gpm/ft <sup>2</sup><br>6,724 Lpm/m <sup>2</sup> |  |
| Grab Tensile Strength                    | ASTM D4632   | 100 lbs<br>445 N                                    |  |
| CBR Puncture                             | ASTM D6241   | 275 lbs<br>1,220 N                                  |  |
| Trapezoidal Tear                         | ASTM D4533   | 50 lbs<br>222 N                                     |  |
| Apparent Opening Size (AOS) <sup>3</sup> | ASTM D4751   | 70 sieve<br>0.212 mm                                |  |
| Grab Elongation                          | ASTM D4632   | 6%  |  |
| UV Resistance                            | ASTM D4355   | 70% / 500 Hrs                                       |  |
| Permittivity                             | ASTM D4491   | 2.4 sec-1   |  |
| CORE                                     |              |   |  |
| Thickness                                | ASTM D5199   | 0.25 in<br>6.35 mm                                  |  |
|  | ASTM D6364 / | 11,000 psf  |  |
| Compressive Strength                     | ASTM D1621   | 527 kPa   |  |
| In-Plane Flow Rate <sup>4</sup>          | ASTM D4716   | 12.5 gpm/ft<br>155 Lpm/m                            |  |
| Perforated?                              |              | No  |  |
| Backing Film for Softer Memb             | ranes        | Yes   |  |
| COMPOSITE                                |              |   |  |
| Recycled Content 5                       | CALCULATED   | > 70%   |  |
| Roll Size                                | MEASURED     | 4 x 50 ft   |  |
| Roll Weight <sup>6</sup>                 | MEASURED     | 29 lbs  |  |

- Unless otherwise noted, all physical and performance properties listed are Typical Values as defined in ASTM D4439.
- 2. PP = Polypropylene; NPNW = Needle-Punched Nonwoven; WM = Woven Monofilament: for use in planters.
- 3. AOS value listed is Maximum Average Roll Value.
- In-plane flow rate measured under 3,600 psf (172 kPa) compressive load at hydraulic gradient of 1.0.
- 5. Pre-Consumer recycled content by weight.
- 6. Approximate packaged roll weight.

All technical information contained in this document is accurate as of revision date listed. Please contact your GMX Account Manager for the most current technical information available.





GMX, Inc. 3014 Chamber Dr. Monroe, NC 28110 Toll Free: 866-228-7743 www.gmxwaterproofing.com

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperatures, application methods, test methods, actual site conditions and curing conditions. Installation conditions and methods can impact product performance. Consult your local GMX Sales Representative for Questions.

PRIOR TO EACH USE OF ANY GMX PRODUCT, THE USER MUST ALWAYS READ AND FOLLOW THE WARNINGS & INSTRUCTIONS ON THE PRODUCT'S MOST CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET WHICH ARE AVAILABLE ONLINE AT WWW.GMXCO.COM OR BY CALLING GMX AT 866-228-7743. NOTHING CONTAINED IN ANY GMX MATERIALS RELIEVES THE USER OF THE OBLIGATION TO READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS FOR EACH GMX PRODUCT AS SET FORTH IN THE CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET PRIOR TO PRODUCT USE.

# **DRAINMAX® 520**

# A Garland Industries Subsidiary



## THREE-PART GEO-TEXTILE COMPOSITE DRAINAGE

# DESCRIPTION

DrainMax® 520 prefabricated sheet drain is composed of a dimpled polymeric core with a nonwoven geotextile bonded to the dimple side and a polymeric film bonded to the back side. The geotextile allows water to pass through while retaining backfill materials. The solid core allows water collection from one side and provides a continuous flow path to designated drainage exits. The polymeric backing film provides system compatibility with softer waterproofing membranes. DrainMax® 520 is recommended for single-sided subsurface vertical drainage applications requiring high strength, high flow capacity, while providing additional protection for softer waterproofing membranes.

| TECHNICAL DATA                           |              |                          |
|--|--------------|--------------------------|
| Physical Properties 1                    | Test Method  | Typical Values           |
| GEOTEXTILE                               |              |                          |
| Material <sup>2</sup>                    |              | PP, NPNW                 |
| Water Flow Rate                          | ASTM D4491   | 165 gpm/ft²              |
| water flow hate                          | AOTIVI D4431 | 6,724 Lpm/m <sup>2</sup> |
| Grab Tensile Strength                    | ASTM D4632   | 100 lbs                  |
|  |              | 445 N                    |
| CBR Puncture                             | ASTM D6241   | 275 lbs                  |
|  |              | 1,220 N                  |
| Trapezoidal Tear                         | ASTM D4533   | 50 lbs                   |
|  |              | 222 N                    |
| Apparent Opening Size (AOS) <sup>3</sup> | ASTM D4751   | 70 sieve<br>0.212 mm     |
|  | ASTM D4632   | 6%                       |
| Grab Elongation                          |              |                          |
| UV Resistance                            | ASTM D4355   | 70% / 500 Hrs            |
| Permittivity                             | ASTM D4491   | 2.4 sec-1                |
| CORE                                     |              |                          |
| Thickness                                | ASTM D5199   | 0.25 in                  |
|  |              | 6.35 mm                  |
| Compressive Strength                     | ASTM D6364 / | 11,000 psf               |
|  | ASTM D1621   | 527 kPa                  |
| In-Plane Flow Rate 4                     | ASTM D4716   | 12.5 gpm/ft              |
|  |              | 155 Lpm/m                |
| Perforated?                              |              | No                       |
| Backing Film for Softer Memb             | ranes        | Yes                      |
| COMPOSITE                                |              |                          |
| Recycled Content 5                       | CALCULATED   | > 70%                    |
| Roll Size                                | MEASURED     | 4 x 50 ft                |
| Roll Weight <sup>6</sup>                 | MEASURED     | 29 lbs                   |

- Unless otherwise noted, all physical and performance properties listed are Typical Values as defined in ASTM D4439.
- 2. PP = Polypropylene; NPNW = Needle-Punched Nonwoven; WM = Woven Monofilament: for use in planters.
- 3. AOS value listed is Maximum Average Roll Value.
- In-plane flow rate measured under 3,600 psf (172 kPa) compressive load at hydraulic gradient of 1.0.
- 5. Pre-Consumer recycled content by weight.
- 6. Approximate packaged roll weight.

All technical information contained in this document is accurate as of revision date listed. Please contact your GMX Account Manager for the most current technical information available.





GMX, Inc. 3014 Chamber Dr. Monroe, NC 28110 Toll Free: 866-228-7743 www.gmxwaterproofing.com

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperatures, application methods, test methods, actual site conditions and curing conditions. Installation conditions and methods can impact product performance. Consult your local GMX Sales Representative for Questions.

PRIOR TO EACH USE OF ANY GMX PRODUCT, THE USER MUST ALWAYS READ AND FOLLOW THE WARNINGS & INSTRUCTIONS ON THE PRODUCT'S MOST CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET WHICH ARE AVAILABLE ONLINE AT WWW.GMXCO.COM OR BY CALLING GMX AT 866-228-7743. NOTHING CONTAINED IN ANY GMX MATERIALS RELIEVES THE USER OF THE OBLIGATION TO READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS FOR EACH GMX PRODUCT AS SET FORTH IN THE CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET PRIOR TO PRODUCT USE.

# DRAINMAX® 680

# A Garland Industries Subsidiary



# TWO-PART GEO-TEXTILE COMPOSITE DRAINAGE

# DESCRIPTION

DrainMax® 680 prefabricated sheet drain is composed of a dimpled polymeric core with a heavy-duty nonwoven geotextile bonded to the dimple side. The geotextile allows water to pass through while retaining backfill materials. The solid core allows water collection from one side and provides a continuous flow path to designated drainage exits. DrainMax® 680 is recommended for single-sided subsurface drainage applications requiring high strength, high flow capacity, and a high-survivability geotextile.

| TECHNICAL DATA                    |               |                          |
|-----------------------------------|---------------|--------------------------|
| Physical Properties <sup>1</sup>  | Test Method   | Typical Values           |
| GEOTEXTILE                        |               |                          |
| Material <sup>2</sup>             |               | PP, NPNW                 |
| W . El . D .                      | AOTM DATO     | 100 gpm/ft <sup>2</sup>  |
| Water Flow Rate                   | ASTM D4491    | 4,075 Lpm/m <sup>2</sup> |
| Crah Tanaila Strangth             | ASTM D4632    | 205 lbs                  |
| Grab Tensile Strength             | ASTM D4032    | 912 N                    |
| CBR Puncture                      | ASTM D6241    | 580 lbs                  |
| OBIT I dilettire                  | AOTM DOZ41    | 2,580 N                  |
| Trapezoidal Tear                  | ASTM D4533    | 80 lbs                   |
| mapozoidai rodi                   | 7.01W D4000   | 356 N                    |
| Apparent Opening Size             | ASTM D4751    | 80 sieve                 |
| (AOS) <sup>3</sup>                | 7.61111.611   | 0.180 mm                 |
| Grab Elongation                   | ASTM D4632    | 60%                      |
| UV Resistance                     | ASTM D4355    | 70% / 500 Hrs            |
| Permittivity                      | ASTM D4491    | 1.5 sec-1                |
| CORE                              |               |                          |
| T                                 | AOTM DE100    | 0.40 in                  |
| Thickness                         | ASTM D5199    | 10 mm                    |
| Compressive Strength              | ASTM D6364 /  | 18,000 psf               |
| Compressive offerigin             | ASTM D1621    | 862 kPa                  |
| In-Plane Flow Rate 4              | ASTM D4716    | 21 gpm/ft                |
| III I IAIIG I IOW HALE            | AUTIVI D47 10 | 261 Lpm/m                |
| Perforated?                       |               | No                       |
| Backing Film for Softer Membranes |               | No                       |
| COMPOSITE                         |               |                          |
| Recycled Content 5                | CALCULATED    | > 70%                    |
| Roll Size                         | MEASURED      | 4 x 50 ft                |
|                                   |               |                          |

**MEASURED** 

53 lbs

- Unless otherwise noted, all physical and performance properties listed are Typical Values as defined in ASTM D4439.
- 2. PP = Polypropylene; NPNW = Needle-Punched Nonwoven; WM = Woven Monofilament: for use in planters.
- 3. AOS value listed is Maximum Average Roll Value.
- In-plane flow rate measured under 3,600 psf (172 kPa) compressive load at hydraulic gradient of 1.0.
- 5. Pre-Consumer recycled content by weight.
- 6. Approximate packaged roll weight.

All technical information contained in this document is accurate as of revision date listed. Please contact your GMX Account Manager for the most current technical information available.





GMX, Inc. 3014 Chamber Dr. Monroe, NC 28110 Toll Free: 866-228-7743 www.gmxwaterproofing.com

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperatures, application methods, test methods, actual site conditions and curing conditions. Installation conditions and methods can impact product performance. Consult your local GMX Sales Representative for Questions.

PRIOR TO EACH USE OF ANY GMX PRODUCT, THE USER MUST ALWAYS READ AND FOLLOW THE WARNINGS & INSTRUCTIONS ON THE PRODUCT'S MOST CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET WHICH ARE AVAILABLE ONLINE AT WWW.GMXCO.COM OR BY CALLING GMX AT 866-228-7743. NOTHING CONTAINED IN ANY GMX MATERIALS RELIEVES THE USER OF THE OBLIGATION TO READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS FOR EACH GMX PRODUCT AS SET FORTH IN THE CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET PRIOR TO PRODUCT USE.

Roll Weight <sup>6</sup>

# **DRAINMAX® GR 50**





## **NEED**

Introducing DrainMax® GR 50, a prefabricated drain designed specifically for roof gardens. This product combines essential elements such as drainage, water storage, aeration, and membrane protection, making it easy to install, lightweight, durable, and cost-effective. These features support LEED design initiatives focused on stormwater management and recycled materials.

DrainMax® GR 50 is available in rolls measuring 4 feet by 50 feet.

| TECHNICAL DATA   DrainMax® GR 50 |          |             |   |
|----------------------------------|----------|-------------|---|
| Physical Properties              |          | Test Method | Typical Values                                |
| GEOTEXTILE - TOP SIDE            |          |             |   |
| Material <sup>2</sup>            |          |             | PP, SBNW                                      |
| 0 1 7 11 01 11                   |          |             | 150 lbs                                       |
| Grab Tensile Strength            | D 4      | 1632        | 667 N   |
| Grab Elongation                  | D 4      | 632         | 50%   |
| CBR Puncture Strength            | D.E      | 8241        | 295 lbs                                       |
| OBITT dilotare offerigin         |          | 7241        | 1,312 N                                       |
| Trapezoidal Tear                 | D 4      | 1533        | 60 lbs  |
|                                  |          |             | 290 N   |
| UV Resistance                    | D 4      | 4355        | 70 % / 500 Hrs                                |
| Apparent Opening Size            | D 4      | 491         | 1.0 sec- <sup>1</sup>                         |
| Water Flow Rate                  | D 4      | 491         | 70 gpm/ft <sup>2</sup>                        |
| Water Flow Hate                  |          | 101         | 2,853 Lpm/m <sup>2</sup>                      |
| CORE                             | _        |             |   |
| Compressive Strength             | D 1      | 621         | 15,000 psf                                    |
| Compressive Changin              | D 6      | 3364        | 718 kPa                                       |
| Thickness                        | D 5      | 5199        | 0.4 in  |
|                                  |          |             | 10 mm   |
| In-Plane Flow Rate 4             | D 4      | 716         | 18 gpm/ft                                     |
|                                  |          |             | 224 Lpm/m                                     |
| In-Plane Flow Rate 4             | D 4      | 716         | 6 gpm/ft                                      |
|                                  |          |             | 75 Lpm/m                                      |
| Water Storage Capacity           | E 2      | 398         | 0.05 gal/ft <sup>2</sup> 2.0 L/m <sup>2</sup> |
|                                  |          |             | 3.9 in2/ft <sup>2</sup>                       |
| Perforation Open Area            | CA       | LCULATED    | 27,080 mm2/m <sup>2</sup>                     |
| GEOTEXTILE - BOTTOM SID          |          |             | 21,0002/                                      |
| Material <sup>2</sup>            |          |             | PP, NPNW                                      |
| atoriai                          |          |             | 100 lbs                                       |
| Grab Tensile Strength            | D 4      | 632         | 445 N   |
| COMPOSITE                        |          |             |   |
| Recycled Content <sup>5</sup>    | CAL      | .CULATED    | > 50%   |
| Roll Size                        | MEA      | ASURED      | 4 x 50 ft                                     |
| Roll Weight 6                    | MEASURED |             | 45 lbs  |

- Unless otherwise noted, all physical and performance properties listed are Typical Value
  as defined in ASTM D4439. Please contact your GMX Account Manager for the most
  current technical information available.
- PP = Polypropylene; NPNW = Needle-Punched Nonwoven; WM = Woven Monofilament for use in planters
- 3. AOS value listed is Maximum Average Roll Value
- 4. In plane flow rate measured under 3,600 psf (172 kPa) compressive load at hydraulic gradient of 1.0.
- 5. Pre-Consumer recycled content by weight.
- 6. Approximate packaged roll weight.





GMX, Inc. 3014 Chamber Dr. Monroe, NC 28110 Toll Free: 866-228-7743 www.gmxwaterproofing.com

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperatures, application methods, test methods, actual site conditions and curing conditions. Installation conditions and methods can impact product performance. Consult your local GMX Sales Representative for Questions.

PRIOR TO EACH USE OF ANY GMX PRODUCT, THE USER MUST ALWAYS READ AND FOLLOW THE WARNINGS & INSTRUCTIONS ON THE PRODUCT'S MOST CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET WHICH ARE AVAILABLE ONLINE AT WWW.GMXCO.COM OR BY CALLING GMX AT 866-228-7743. NOTHING CONTAINED IN ANY GMX MATERIALS RELIEVES THE USER OF THE OBLIGATION TO READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS FOR EACH GMX PRODUCT AS SET FORTH IN THE CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET PRIOR TO PRODUCT USE.

# **DRAINMAX® GR100**





## TWO-PART GEOTEXTILE COMPOSITE DRAINAGE MAT

Introducing DrainMax® GR100, a prefabricated drain designed specifically for roof gardens. This product combines essential elements such as drainage, water storage, aeration, and membrane protection, making it easy to install, lightweight, durable, and cost-effective. These features support LEED design initiatives focused on stormwater management and recycled materials.

DrainMax® GR100 has a 1-inch-thick core, ideal for specialty applications requiring increased water flow and storage capacity, and is available in rolls measuring 3 feet by 50 feet.

| TECHNICAL DATA   DrainMax® GR100                         |             |                           |  |
|--|-------------|---------------------------|--|
| Physical Properties                                      | Test Method | Typical Values            |  |
| GEOTEXTILE - TOP SIDE                                    |             |                           |  |
| Material <sup>2</sup>                                    |             | PP, SBNW                  |  |
| Grab Tensile Strength                                    | D 4632      | 150 lbs                   |  |
| Grab Tensile Strength                                    | D 4032      | 667 N                     |  |
| Grab Elongation  | D 4632      | 50%                       |  |
| CBR Puncture Strength                                    | D 6241      | 295 lbs                   |  |
| 3  |             | 1,312 N                   |  |
| Trapezoidal Tear   | D 4533      | 60 lbs                    |  |
| LIV/D  | D 4055      | 290 N                     |  |
| UV Resistance  | D 4355      | 70 % / 500 Hrs            |  |
| Apparent Opening Size                                    | D 4491      | 1.0 sec- <sup>1</sup>     |  |
| Water Flow Rate  | D 4491      | 70 gpm/ft <sup>2</sup>    |  |
|  |             | 2,853 Lpm/m <sup>2</sup>  |  |
| CORE   |             |                           |  |
| Compressive Strength                                     | D 1621      | 9,500 psf                 |  |
|  | D 6364      | 455 kPa                   |  |
| Thickness  | D 5199      | 1 in                      |  |
|  |             | 25.4 mm                   |  |
| In-Plane Flow Rate <sup>4</sup> Hydraulic Gradient = 1.0 | D 4716      | 80 gpm/ft<br>933 Lpm/m    |  |
|  |             | 21 gpm/ft                 |  |
| In-Plane Flow Rate <sup>4</sup> Hydraulic Gradient = 0.1 | D 4716      | 260 Lpm/m                 |  |
|  |             | 0.08 gal/ft <sup>2</sup>  |  |
| Water Storage Capacity                                   | E 2398      | 3.3 L/m <sup>2</sup>      |  |
|  |             | 8.7 in2/ft <sup>2</sup>   |  |
| Perforation Open Area                                    | CALCULATED  | 60,400 mm2/m <sup>2</sup> |  |
| GEOTEXTILE - BOTTOM SIDE                                 |             |                           |  |
| Material <sup>2</sup>                                    |             | PP, NPNW                  |  |
|  |             | 100 lbs                   |  |
| Grab Tensile Strength                                    | D 4632      | 445 N                     |  |
| COMPOSITE  |             |                           |  |
| Recycled Content <sup>5</sup>                            | CALCULATED  | > 50%                     |  |
| Roll Size  | MEASURED    | 3 x 50 ft                 |  |
| Roll Weight <sup>6</sup>                                 | MEASURED    | 45 lbs                    |  |

- Unless otherwise noted, all physical and performance properties listed are Typical Value as defined in ASTM D4439. Please contact your GMX Account Manager for the most current technical information available.
- PP = Polypropylene; NPNW = Needle-Punched Nonwoven; WM = Woven Monofilament for use in planters
- 3. AOS value listed is Maximum Average Roll Value
- In plane flow rate measured under 3,600 psf (172 kPa) compressive load at hydraulic gradient of 1.0.
- 5. Pre-Consumer recycled content by weight
- 6. Approximate packaged roll weight.





GMX, Inc. 3014 Chamber Dr. Monroe, NC 28110 Toll Free: 866-228-7743 www.gmxwaterproofing.com

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperatures, application methods, test methods, actual site conditions and curing conditions. Installation conditions and methods can impact product performance. Consult your local GMX Sales Representative for Questions.

PRIOR TO EACH USE OF ANY GMX PRODUCT, THE USER MUST ALWAYS READ AND FOLLOW THE WARNINGS & INSTRUCTIONS ON THE PRODUCT'S MOST CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET WHICH ARE AVAILABLE ONLINE AT WWW.GMXCO.COM OR BY CALLING GMX AT 866-228-7743. NOTHING CONTAINED IN ANY GMX MATERIALS RELIEVES THE USER OF THE OBLIGATION TO READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS FOR EACH GMX PRODUCT AS SET FORTH IN THE CURRENT PRODUCT DATA SHEET, PRODUCT LABEL AND SAFETY DATA SHEET PRIOR TO PRODUCT USE.



# Safety Data Sheet

**Article** 

**Article No.:** 050109 **Version:** 2024.02

# Dear Customer:

According to Federal Regulations, GMX Commercial Waterproofing Materials commercially available under the following names:

Bilar® Drain Max GR100
TegoBase Drain Max Base Drain

FasTape SRA W Drain Max Base Drain Universal End Outlet
Drain Max 200 Drain Max Base Drain Universal Tee Outlet

Drain Max 220 Drain Max 12" Corner Guard
Drain Max 380 Ultra-Guard Glass Wrap
Drain Max 500 TegoBloc Boot 3",6",8" &10"

Drain Max 520 TegoBloc SA
Drain Max 650 TegoBloc SA-LT

Drain Max 680 Ultra-Guard Reinforcing Fabric 9" & 36"

Drain Max GR50 Ultra-Guard GB Ultra-Guard GB FR

... and all surfacing and colors thereof meet the OSHA definition of an "Article" under 29 CFR 1910.1200(c) and does not require a Safety Data Sheet (SDS) as indicated under 29 CFR 1010.1200(b)(6)(v).

Articles of Manufacture are defined as: "... a manufactured item which is formed to a specific shape or design during manufacture, which has end use functions depending in whole or in part upon its shape or design during end use and which does not release or otherwise result in exposure to a hazardous chemical under normal conditions of use."

As the above products fall under the definition of Articles of Manufacture, there is no need for an SDS. Therefore, no SDS has been forwarded to your attention. This helps us greatly in our efforts to reduce the amount of paper we use, and in turn to preserve our natural resources.

If you have any questions regarding the above, please call (704) 334-8222.

Sincerely,

GMX, INC.

Manufacturer Address 3014 Chamber Drive Monroe, NC 28110



# Safety Data Sheet

according to US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR) Revision Date: 10/19/2023 Date of Issue: 08/04/2022

# SECTION 1: IDENTIFICATION

**Product Identifier** 

Product Form: Mixture

Product Name: UltraGuard Elastomeric HB

Name, Address, and Telephone of the Responsible Party

Manufacturer GMX, Inc. P.O. Box 743

Matthews, NC 28106

**Emergency Telephone Number** 

Emergency Number: 1-800-424-9300 (CHEMTREC)

Main Switch Board: (704) 334-8222

# SECTION 2: HAZARDS IDENTIFICATION

# Classification of the Substance or Mixture

Classification (GHS-US) H317 – Skin Sens. 1

H350– Carc. 1A

**Label Elements** 

**GHS-US Labeling** 

Hazard Pictograms (GHS-US)





Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H317 – May cause an allergic skin reaction

H350 - May Cause Cancer

**Precautionary Statements (GHS-US)** : Obtain special instructions before use

Do not handle until all safety precautions have been read and understood Wear protective gloves, protective clothing, eye protection and face protection

Version: 3.0

Avoid breathing dust, fume, gas, mist, vapors and spray

Contaminated work clothing must not be allowed out of the workplace

IF exposed or concerned: Get medical advice/attention

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313 If skin irritation occurs: Get medical advice/ attention. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/ container in accordance with national regulations.

# **Other Hazards**

Other Hazards Not Contributing to the Classification: Not available.

**Unknown Acute Toxicity (GHS-US)** 

No data available

# **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

# **Substance**

Not available

# Mixture

| Name                          | Product identifier | % (w/w) |
|-------------------------------|--------------------|---------|
| Limestone                     | CAS No (1317-65-3) | 10-20   |
| Calcium Carbonate             | CAS No (471-34-1)  | 10-20   |
| Proprietary Plasticizer       | Proprietary        | 10-20   |
| Proprietary Adhesion Promoter | Proprietary        | <1      |

Safety Data Sheet

According to Federal Register/Vol. 77, No. 58/Monday, March 26, 2012/Rules and Regulations

Revision Date: N/A Date of issue: 08/04/2022

| Carbon Black | CAS No (1333-86-4) | <1 |  |
|--------------|--------------------|----|--|
|              |                    |    |  |

# **SECTION 4: FIRST AID MEASURES**

# **Description of First Aid Measures**

**First-aid Measures General**: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). IF exposed or concerned: Get medical advice/attention.

First-aid Measures After Inhalation: Remove to fresh air.

**First-aid Measures After Skin Contact**: Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a physician.

**First-aid Measures After Eye Contact**: Rinse thoroughly with water for at least 15 minutes, lifting lower and upper eyelids. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Consult a physician.

First-aid Measures After Ingestion: Rinse mouth.

## Most important symptoms and effects, both acute and delayed

Symptoms Itching. Rashes. Hives.

# Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization in susceptible persons. Treat symptomatically.

# SECTION 5: FIRE-FIGHTING MEASURES

# **Extinguishing Media**

**Suitable Extinguishing Media:** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media: Do not scatter spilled material with high pressure water streams.

# **Special Hazards Arising From the Substance or Mixture**

Product is or contains a sensitizer. May cause sensitization by skin contact. Containers may explode when heated.

## **Advice for Firefighters**

Firefighting Instructions: Exercise caution when fighting any chemical fire.

**Protection During Firefighting:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

# **Reference to Other Sections**

Refer to section 9 for flammability properties.

# SECTION 6: ACCIDENTAL RELEASE MEASURES

# Personal Precautions, Protective Equipment and Emergency Procedures

**General Measures**: Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

# Methods and Material for Containment and Cleaning Up

**For Containment and Clean Up:** Dike with inert absorbent material (e.g. dry sand or earth). Take precautionary measures against static discharges. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Keep in suitable and closed containers for disposal. Dispose of as common waste.

# **Reference to Other Sections**

See heading 8, Exposure Controls and Personal Protection.

# SECTION 7: HANDLING AND STORAGE

# **Precautions for Safe Handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Remove contaminated clothing and shoes.

# **Conditions for Safe Storage, Including Any Incompatibilities**

**Storage Conditions:** Keep container tightly closed. Keep in properly labeled containers. Keep out of the reach of children. **Incompatible Materials:** Not available.

# SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

# **Control Parameters**

| Limestone (1317-65-3) |                                      |                      |
|-----------------------|--------------------------------------|----------------------|
| USA OSHA              | OSHA TWA respirable fraction (mg/m³) | 5 mg/m <sup>3</sup>  |
| USA OSHA              | OSHA TWA Total Dust (mg/m³)          | 15 mg/m <sup>3</sup> |
| NIOSH                 | TWA Total Dust                       | 10 mg/m <sup>3</sup> |
| NIOSH                 | TWA Respirable Dust                  | 5 mg/m <sup>3</sup>  |

| Calcium Carbonate (471-34-1) |                                      |                      |
|------------------------------|--------------------------------------|----------------------|
| USA OSHA                     | OSHA TWA respirable fraction (mg/m³) | 5 mg/m <sup>3</sup>  |
| USA OSHA                     | OSHA TWA Total Dust (mg/m³)          | 15 mg/m <sup>3</sup> |

En (English US) Page 2 of 7

Safety Data Sheet

According to Federal Register/Vol. 77, No. 58/Monday, March 26, 2012/Rules and Regulations

Revision Date: N/A Date of issue: 08/04/2022

| NIOSH | TWA Total Dust      | 10 mg/m <sup>3</sup> |
|-------|---------------------|----------------------|
| NIOSH | TWA Respirable Dust | 5 mg/m <sup>3</sup>  |

| Proprietary Plasticizer |  |                        |
|-------------------------|--|------------------------|
| USA ACGIH               | ACGIH TWA inhalable particulate matter excluding metal working fluids, highly & severely refined | 5 mg/m <sup>3</sup>    |
| USA OSHA                | OSHA TWA (mg/m³)   | 5 mg/m <sup>3</sup>    |
| NIOSH IDLH              | Immediate danger to life and health (ppm)  | 2500 mg/m <sup>3</sup> |
| NIOSH                   | NIOSH TWA  | 5 mg/m <sup>3</sup>    |
| NIOSH                   | STEL   | 10 mg/m <sup>3</sup>   |

| Carbon Black (1333-86-4) |   |                        |
|--------------------------|---|------------------------|
| USA ACGIH                | ACGIH TWA respirable fraction (mg/m³)       | 3 mg/m <sup>3</sup>    |
| USA OSHA                 | OSHA TWA (mg/m³)                            | 3.5 mg/m <sup>3</sup>  |
| NIOSH IDLH               | Immediate danger to life and health (mg/m³) | 1750 mg/m <sup>3</sup> |
| NIOSH TWA                | TWA Carbon black in presence of Polycyclic  | 0.1 mg/m <sup>3</sup>  |
|                          | aromatic hydrocarbons PAH                   |                        |

# **Exposure Controls**

Appropriate Engineering Controls: Provide adequate general and local exhaust ventilation. Ensure the ventilation system is regularly maintained and tested. Good general ventilation should be adequate to control workers' exposure to airborne contaminants. Observe any occupational exposure limits for the product or ingredients. Showers and Eyewash Stations. Personal Protective Equipment: Gloves. Protective clothing. Protective goggles.

**Eye and Face Protection:** Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a fullface respirator may be required instead.

Skin and Body Protection: Wear appropriate clothing to prevent any possibility of skin contact.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

Hand Protection: Wear protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

Hygiene Measures: Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice.

Other Information: When using, do not eat, drink, or smoke.

**Environmental exposure controls:** Keep container tightly sealed when not in use. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

# SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

# **Information on Basic Physical and Chemical Properties**

Physical State : Paste Character : Charact

Characteristic **Odor Threshold** Not available рΗ Not available Relative Evaporation Rate (butyl acetate = 1) Not available **Melting Point** Not available **Boiling Point** Not available **Flash Point** Not available **Auto-ignition Temperature** Not available **Decomposition Temperature** Not available Flammability (solid, gas) Not available **Lower Flammable Limit** Not available **Upper Flammable Limit** Not available **Vapor Pressure** Not available Relative Vapor Density at 68°F (20°C) > 1 (Air = 1): **Relative Density** Not available

Specific Gravity : >1.0

**Solubility** : Partly miscible

En (English US) Page **3** of **7** 

Safety Data Sheet

According to Federal Register/Vol. 77, No. 58/Monday, March 26, 2012/Rules and Regulations

Revision Date: N/A Date of issue: 08/04/2022

Partition coefficient: n-octanol/water : Not available
Explosion Data – Sensitivity to Mechanical Impact : Not available
Explosion Data – Sensitivity to Static Discharge : Not available

# SECTION 10: STABILITY AND REACTIVITY

Reactivity: See the other subsections of this section for further details.

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: No potentially hazardous reactions known.

Conditions to Avoid: No information available.

**Incompatible Materials:** No materials to be especially mentioned.

Hazardous Decomposition Products: Carbon monoxide. Carbon dioxide. Hydrocarbons.

# **SECTION 11: TOXICOLOGICAL INFORMATION**

# Information On Toxicological Effects - Product

# Information on likely routes of exposure

**Product Information** 

InhalationSpecific test data for the substance or mixture is not available.Eye contactSpecific test data for the substance or mixture is not available.

**Skin contact** May cause sensitization by skin contact. Specific test data for the substance or mixture is not

available. Repeated or prolonged skin contact may cause allergic reactions with susceptible

persons. (based on components).

**Ingestion** Specific test data for the substance or mixture is not available.

# Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** Itching. Rashes. Hives.

Acute toxicity

**Numerical measures of toxicity** 

# The following values are calculated based on chapter 3.1 of the GHS document

 ATEmix (oral)
 30,109.60 mg/kg

 ATEmix (dermal)
 6,073.50 mg/kg

 ATEmix (inhalation-gas)
 99,999.00 ppm

ATEmix (inhalation-dust/mist) 99,999.00 mg/l

ATEmix (inhalation-vapor) 99,999.00 mg/l

**Component Information** 

# Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.
Serious eye damage/eye irritation No information available.

**Respiratory or skin sensitization** May cause an allergic skin reaction.

**Germ cell mutagenicity** No information available.

Carcinogenicity Contains a known or suspected carcinogen. Classification based on data

available for ingredients. May cause cancer.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical Name           | ACGIH | IARC     | NTP   | OSHA |
|-------------------------|-------|----------|-------|------|
| Proprietary Plasticizer | A2    | Group 1  | Known | Х    |
| Carbon Black 1333-86-4  | А3    | Group 2B | -     | Х    |

# Legend

# ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

A3 – Animal carcinogen

# IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2B – Possibly carcinogenic to humans

NTP (National Toxicology Program)

Known - Known Carcinogen

# OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

En (English US) Page **4** of **7** 

Safety Data Sheet

According to Federal Register/Vol. 77, No. 58/Monday, March 26, 2012/Rules and Regulations

Revision Date: N/A Date of issue: 08/04/2022

**Reproductive toxicity**Contains a known or suspected reproductive toxin. Classification based on data available

for ingredients.

STOT - single exposure
STOT - repeated exposure
Aspiration hazard
No information available.
No information available.

# **SECTION 12: ECOLOGICAL INFORMATION**

# **Toxicity - Ingredients**

Proprietary Plasticizer:

Fish: LC50: >5000 mg/L (96 hr, Oncorhynchus mykiss) Crustacea: EC50: >1000 mg/L (48hr, Daphnia magna)

Persistence and Degradability

No information available for this product. **Bioaccumulative Potential – Product** 

No information available for this product. **Bioaccumulative Potential – Ingredients** 

No information available for this product.

**Mobility in Soil** 

No information available for this product.

**Other Adverse Effects** 

Other Information: Avoid release to the environment.

# SECTION 13: DISPOSAL CONSIDERATIONS

**Waste Disposal Recommendations:** Dispose of in accordance with local, state, and federal regulations. **Additional Information:** Empty containers should be taken for local recycling, recovery or waste disposal.

# SECTION 14: TRANSPORT INFORMATION

# In Accordance with DOT

Proper Shipping Name : Non-Regulated Material.

In Accordance with IMDG

Proper Shipping Name : Not Regulated.

Hazard Class :

Identification Number
Packing Group
Marine Pollutant

**In Accordance with IATA** 

**Proper Shipping Name** : Not Regulated.

Hazard Class : Identification Number : Packing Group : Marine Pollutant :

In Accordance with TDG

Proper Shipping Name : Not Regulated.

Hazard Class :
Identification Number :
Packing Group :
Marine Pollutant :

# **SECTION 15: REGULATORY INFORMATION**

# **International Regulations**

The Montreal Protocol on Substances that Deplete the Ozone Layer-Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

# **International Inventories**

TSCA All ingredients are listed or exempt.

DSL/NDSL All ingredients are listed or exempt.

EINECS/ELINCS Contact supplier for inventory compliance status.

ENCS Contact supplier for inventory compliance status.

En (English US) Page **5** of **7** 

#### Safety Data Sheet

According to Federal Register/Vol. 77, No. 58/Monday, March 26, 2012/Rules and Regulations

Revision Date: N/A Date of issue: 08/04/2022

| IECSC | Contact supplier for inventory compliance status. |
|-------|---|
| KECL  | Contact supplier for inventory compliance status. |
| PICCS | Contact supplier for inventory compliance status. |
| AIIC  | Contact supplier for inventory compliance status. |
| NZIoC | Contact supplier for inventory compliance status. |

## Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AIIC - Australian Inventory of Industrial Chemicals

NZIoC - New Zealand Inventory of Chemicals

# **US Federal Regulations**

#### **SARA 313**

This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

# SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

# **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

# **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

# **US State Regulations**

# **California Proposition 65**

This product contains the following Proposition 65 chemicals:.

Carbon Black - 1333-86-4 Carcinogen

# **U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

# **US State Regulations**

# **California Directors List of Hazardous Substances**

The following ingredients are listed or exempt:

Carbon Black

# **California Proposition 65**

This product contains no known Proposition 65 chemicals in the form listed which are known to the state of California to cause cancer.

# State Right-to-Know

# Limestone (1317-65-3)

RTK – U.S. – Massachusetts – Right To Know List

RTK - U.S. - New Jersey - Right To Know Hazardous Substance List

RTK - U.S. - Pennsylvania - RTK (Right To Know) List

RTK - U.S. - Minnesota- Right To Know List

RTK - U.S. - Rhode Island - Right To Know List

# Carbon Black (1333-86-4)

RTK - U.S. - Massachusetts - Right To Know List

RTK – U.S. – New Jersey – Right To Know Hazardous Substance List

En (English US) Page 6 of 7

## Safety Data Sheet

According to Federal Register/Vol. 77, No. 58/Monday, March 26, 2012/Rules and Regulations

Revision Date: N/A Date of issue: 08/04/2022

RTK - U.S. - Pennsylvania - RTK (Right To Know) List

RTK - U.S. - Minnesota- Right To Know List

RTK - U.S. - Rhode Island - Right To Know List

# **Canadian Regulations**

| UltraGuard Elastomeric HB        |                 |
|----------------------------------|-----------------|
| All components are listed in the | WHMIS DSL.      |
| WHMIS Classification             | Not classified. |

| NFPA: | Health Hazard: 2 | Flammability: 0 | Instability:0      | Special Hazards - NA    |
|-------|------------------|-----------------|--------------------|-------------------------|
| HMIS: | Health Hazard: 2 | Flammability: 0 | Physical Hazards:0 | Personal Protection - X |

# SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Revision date** : 10/19/2023

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard

Communication Standard 29 CFR 1910.1200.

# Party Responsible for the Preparation of This Document

GMX, Inc.

2034-C Van Buren Ave.

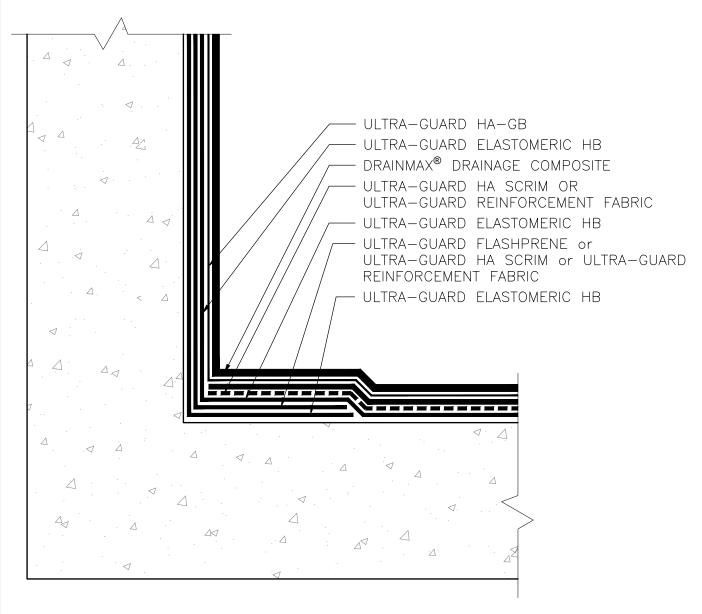
Indian Trail, NC 28709

T-704-334-8222

This information is based on our knowledge as of the Revision Date and is intended to describe the product only for the purposes of health, safety, and environmental requirements as of the Revision Date. It should not therefore be construed as guaranteeing any specific property of the product nor as providing any warranty, expressed or implied. The user assumes all responsibility, liability, risk of loss, damage, or expense arising out of, or in any way connected with, the handling, storage, use, or disposal of the product.

North America GHS US 2015 & WHMIS

En (English US) Page **7** of **7** 



# NOTES

1. TERMINATION OF SHEET FLASHING ON WALL SHALL BE BELOW FINISH COURSE OR PROTECT WITH METAL COUNTERFLASHING.

DRAWINGS ON  $8\frac{1}{2}$ "x11 title blocks are not to scale.

# **ULTRA-GUARD ELASTOMERIC HB**

**EHB-03** 

# **FLASHING TERMINATION**



PROJECT:

CUSTOMER:

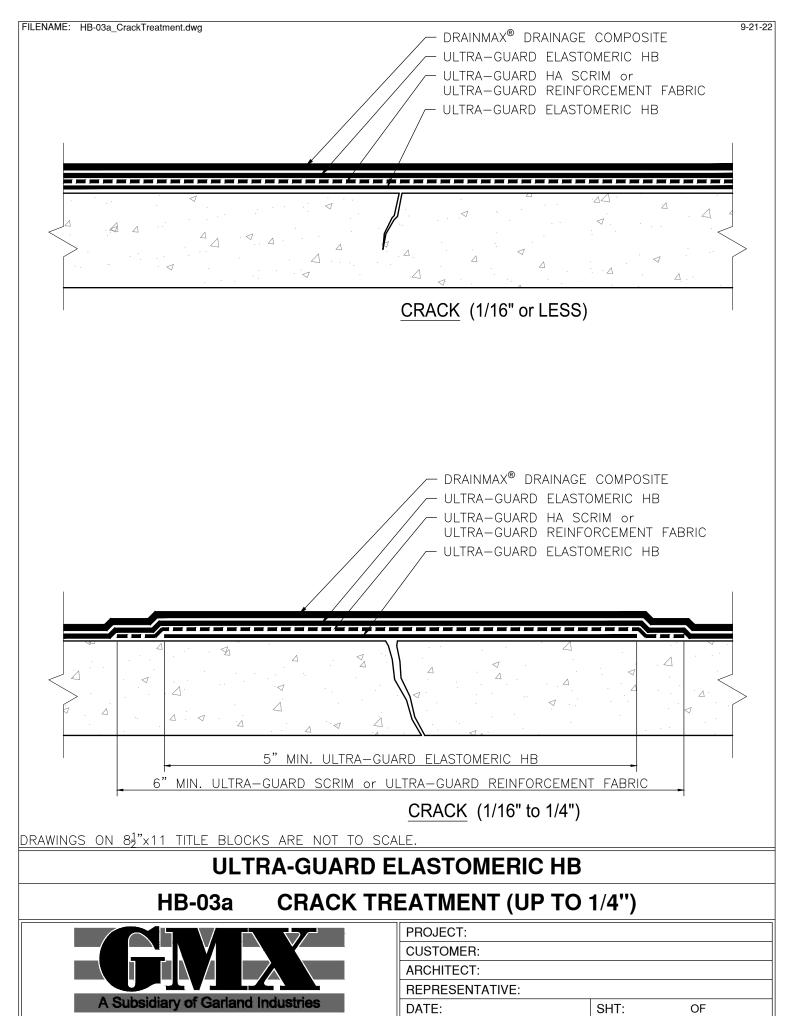
ARCHITECT:

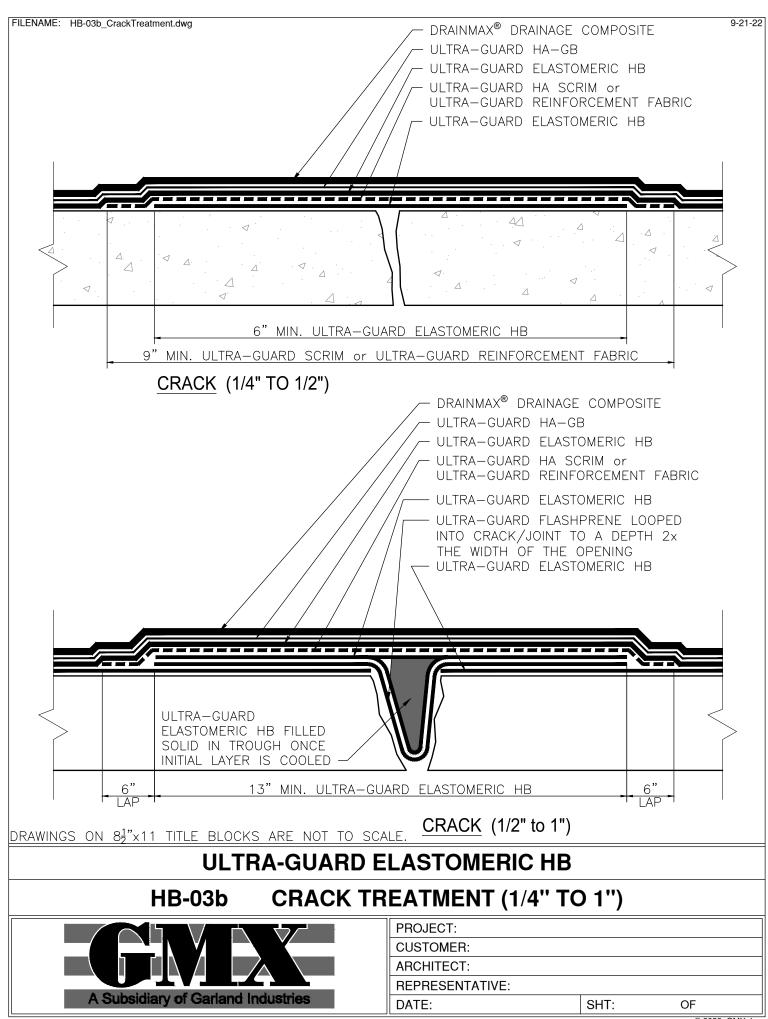
REPRESENTATIVE:

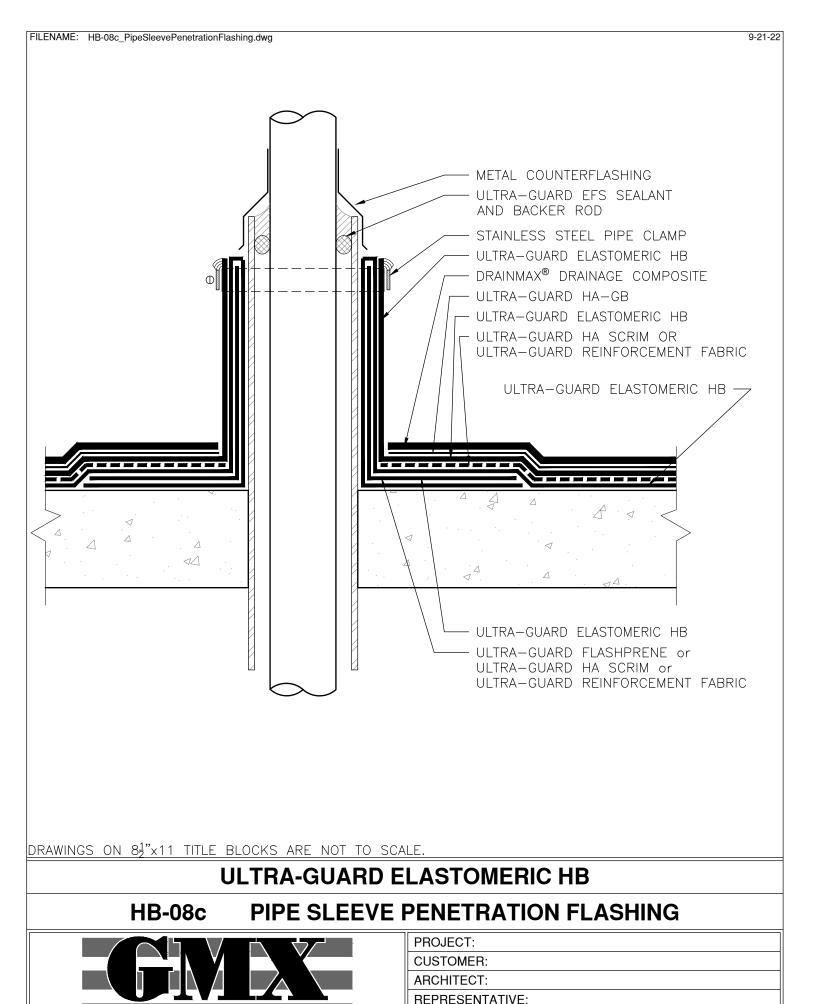
DATE:

SHT:

OF





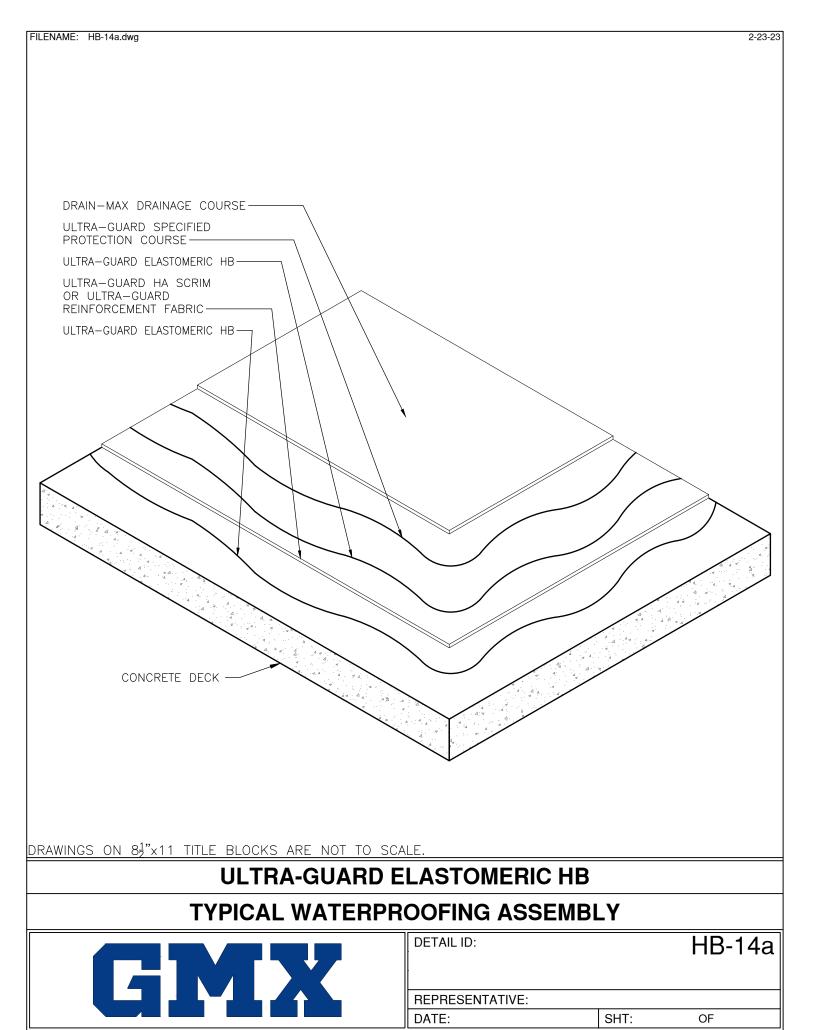


DATE:

A Subsidiary of Garland Industries

OF

SHT:

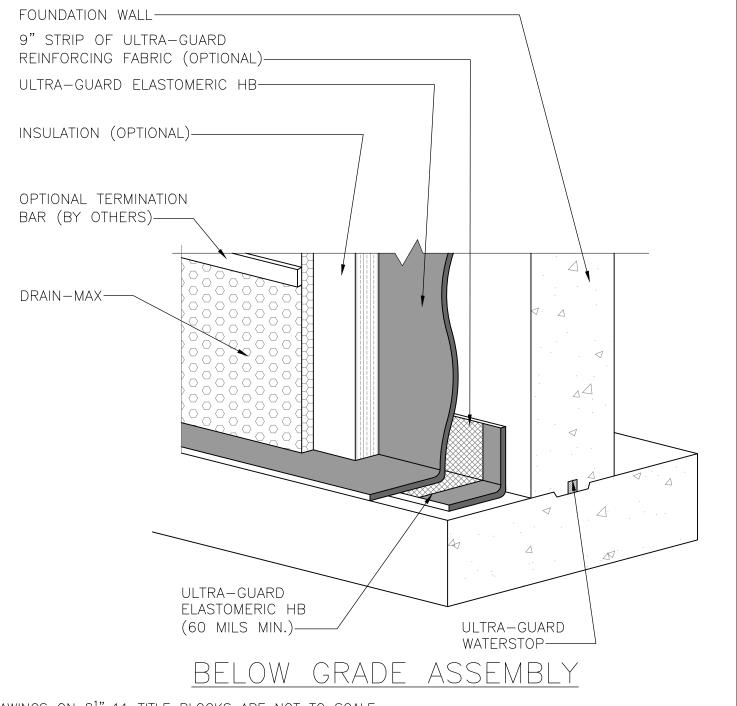


FILENAME: HB-20a.dwg 5-30-23

# NOTE:

1. ALLOW THE ULTRA-GUARD ELASTOMERIC HB TO CURE FOR A MINIMUM OF 24 HOURS WHEN TEMPERATURES ARE CONSTANTLY ABOVE 40 DEGREES F.

2. DRAIN-MAX AND INSULATION MY BE ATTACHED WITH PINS OR APPROPRIATE CONSTRUCTION ADHESIVE



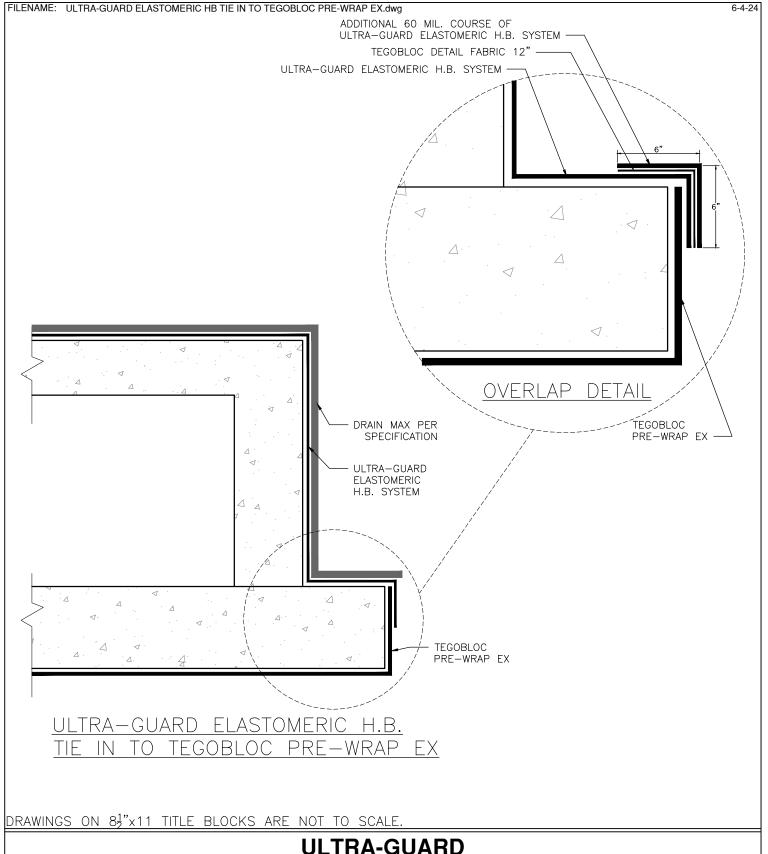
DRAWINGS ON 8½"x11 TITLE BLOCKS ARE NOT TO SCALE.

# **ULTRA-GUARD ELASTOMERIC HB 60 MIL**

# **BELOW GRADE VERTICAL ASSEMBLY**



| DETAIL ID:      |      | HB-20 | )a |
|-----------------|------|-------|----|
| REPRESENTATIVE: |      |       |    |
| DATE:           | SHT: | OF    |    |

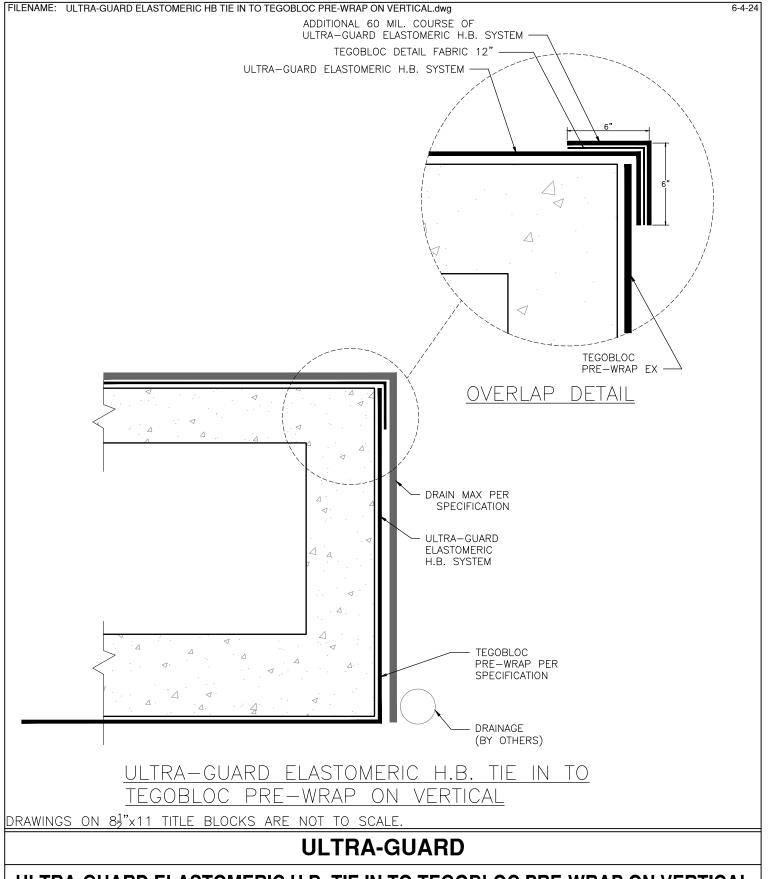


# **ULTRA-GUARD**

# **ULTRA-GUARD ELASTOMERIC H.B. TIE IN TO TEGOBLOC PRE-WRAP EX**



| DETAIL ID:      |      |    |
|-----------------|------|----|
| REPRESENTATIVE: |      |    |
| DATE:           | SHT: | OF |



# **ULTRA-GUARD ELASTOMERIC H.B. TIE IN TO TEGOBLOC PRE-WRAP ON VERTICAL**



| DETAIL ID:      |      |    |
|-----------------|------|----|
| REPRESENTATIVE: |      |    |
| DATE:           | SHT: | OF |