GMX

A Garland Industries Subsidiary

Submittal Package

07 14 13
Hot Fluid-Applied Waterproofing

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

GMX
A Garland Industries Subsidiary

Ultra-Guard® HA-551

Discover the power of GMX's Ultra-Guard® HA-551 – a century-strong waterproofing system. Our hot-applied rubberized asphalt provides unparalleled durability for various applications. With a versatile 215-mil system and customizable fabric reinforcement, protection course, and drainage mats, GMX equips architects, engineers, and designers to create the perfect solution for their projects. Choose Ultra-Guard® HA-551 for exceptional waterproofing performance.

Advantages

+ 100% solids, rubberized asphalt formula
+ Flexible waterproofing membrane
+ Bridges cracks
+ Quick cure
+ Two reinforcing fabric options
+ Drainage mat options matched to the use and performance requirements of the project

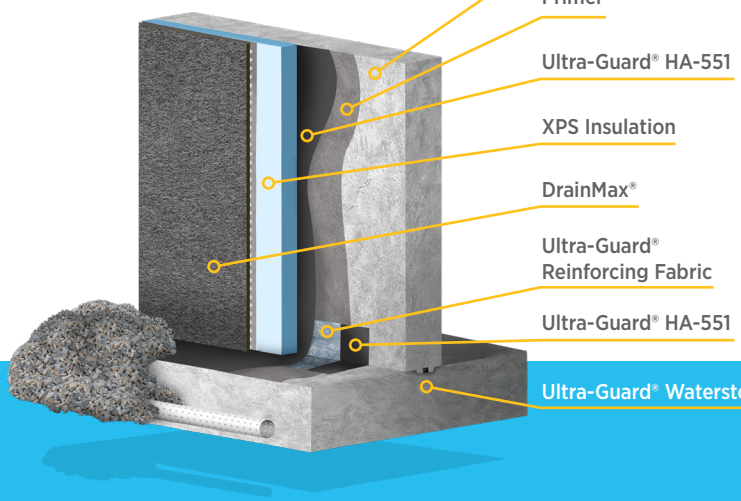
Tested

+ Meets GCSB-37.50-M89
+ Florida product approval
+ Miami-Dade NOA

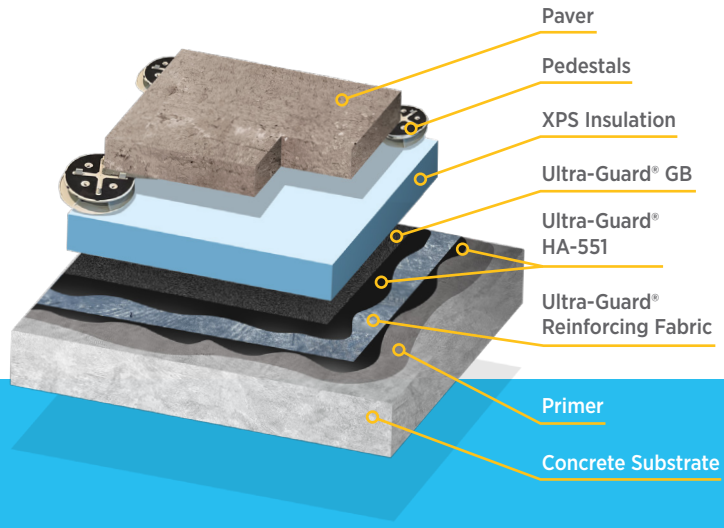
Environmental and Safety

+ Low VOC
+ Low odor

Below Grade Assembly



Plaza Deck Assembly



GMX GMXco.com 704.334.8222 3014 Chamber Drive • Monroe, NC 28110

SEALED with SCIENCE

06/2023 (3)

SECTION 07 14 13

HOT FLUID-APPLIED RUBBERIZED ASPHALT WATERPROOFING

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:
                1. 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:
        1. 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
I. 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

A. Section Includes:

1. 215 mil Rubberized-asphalt waterproofing membrane reinforced.
2. Protection Course.
3. Composite Drainage Sheet.
4. XPS Insulation

1.04 REFERENCES

A. The following standards are applicable to this section:
B. CGSB 37.50-M89: Canadian General Standards Board specification titled: Asphalt, Rubber Modified, Hot-Applied, Waterproofing
C. ASTM E96: Water Vapor Transmission of Materials.
D. US Green Building Council (USGBC), Leadership in Energy and Environmental Design (LEED) - LEED Reference Guide, Version 3.0, and USGBC Project Calculation

Spreadsheet. Web Site http://www.usgbc.org.

E. Miami-Dade NOA No:24-0430.05

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 CGSB 37.50-M89.
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:
   1. 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. Hot Fluid-Applied, Rubberized-Asphalt Waterproofing Membrane: Single component; 100 percent solids; hot fluid-applied, rubberized asphalt. Ultra-Guard HA 551 supplied by GMX, Inc. and having the following physical properties:
   a. CGSB-37.50-M89
   b. Miami-Dade NOA No: 24-0430.05
   c. Solids Content: 100%
   d. Low VOC
   e. Flash Point: >500°F (260°C)
   f. Cone Penetration
      i. @77°F (25°C) – 40 dmm
      ii. @122°F(50°C) – 99 dmm
   g. Toughness: 29 Joules
   h. Resiliency: >40%
   i. Flow: 0 mm @ 144°F
   j. Adhesion: Pass
   k. Water Vapor Permeance: 0.6 ng/Pa. m²
   l. Low Temperature Flexibility: Pass
   m. Crack Bridging @ 13°F (-25°C): Pass
   n. Heat Stability (5 hours): Pass
   o. Viscosity @ Application Temperature: 2-15 seconds
   p. Pinholing: None
   q. Resistance to Acid: 50% sulfuric, no blistering, deterioration, delamination or re-emulsification.
   r. Resistance to Salt Water: 20% (NaCo & NaCl), no blistering, deterioration, delamination or re-emulsification.
   s. Resistance to Fertilizer: 15/5/5 Fertilizer, no blistering, deterioration, delamination or re-emulsification.
   t. Water Resistance: No delamination, blistering, re-emulsification or deterioration.

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. Expansion joints:

Sheet flashings consisting of:
Ultra-Guard Flashprene UN is a flashing material, made

of uncured neoprene rubber, supplied by GMX, Inc.

D. Crack Treatment:
   1. Ultra-Guard Reinforcing Fabric, consisting of continuous filament, point bonded, spunbond, polyester mat reinforcement sheet as supplied by GMX, Inc.
   2. Sheet flashings consisting of:
      Ultra-Guard Flashprene UN is a flashing material, made of uncured neoprene rubber, supplied by GMX, Inc.

E. 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.**

F. Protection Course:
   1. Ultra-Guard HA Scrim continuous filament spunbonded, chemically treated, polyester bicomponent mat.
   2. Ultra-Guard GB non-exposed SBS modified bitumen base sheet supplied by GMX, Inc. having a sanded upper and lower surface for hot or cold adhering to substrate and to receive hot or cold fluid applied waterproofing.
   3. Ultra-Guard GB-FR non-exposed, fire retardant, SBS modified base sheet.
   4. Prefabricated drain board:
      a. Refer to 2.02 Products I. Prefabricated Drain Boards
         1. DrainMax by GMX
   5. Rigid insulation board:
      a. Refer to 2.02 Products J. Insulation
   6. Asphaltic rigid board:
      a. For use when overburden will consist of asphalt concrete pavement
      b. Minimum 1/8" thick semi-rigid asphaltic protection board shall be used.
      c. Contact GMX Technical Services for product recommendations and installation procedures.

G. Termination Sealant:
   1. Termination Sealant shall be Ultra-Guard EFS supplied by GMX, Inc.; a moisture cured, single component sealant.

H. 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.

I. Prefabricated Drain Boards
   1. GMX Drain-Max 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 Drain-Max 680: For horizontal installations requiring 18,000 psi. (Plaza Deck)
      b. GMX Drain-Max 380: For horizontal installations requiring 30,000 psi. (Paver Deck)

c. GMX Drain-Max 650: For Planters
d. GMX Drain-Max 50 and Drain-Max 100 with integral root barrier for Green Roof
e. GMX Drain-Max 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.

J. 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:

K. Filter Fabric (Optional)
1. Filter Fabric consisting of non-woven geotextile made up of polypropylene fibers.
L. 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.

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.**
   2. 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:
   1. 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 Hot Fluid Applied Waterproofing Membrane:
   1. Ensure deck is ready to receive hot fluid applied waterproofing membrane in accordance with published literature.
   2. Apply primer by spraying or rolling to the dried surface at a rate of 125
   3. to 175 sq. ft. per gallon.

4. Apply the first layer of hot fluid applied waterproofing membrane evenly to a minimum thickness of 115 mils to form a continuous monolithic coating over horizontal and vertical surfaces including previously reinforced areas.
5. Apply Ultra-Guard Reinforcing Fabric or Ultra-Guard Scrim sheet and firmly press into first layer of the hot fluid applied waterproofing.
6. Apply the second layer of hot fluid applied waterproofing membrane over the reinforcing sheet to a minimum thickness of 100 mils providing a total thickness of 215 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. Ultra-Guard Scrim or Ultra-Guard Reinforcing Fabric protection fabric:
      1. Install onto hot fluid applied waterproofing membrane while still tacky.
      2. Where protection course is used lap membrane 2 inches on side laps and 6 inches on end laps, or end-butt the membranes.
      3. Install the protection course membrane in full continuous sheets in a shingle pattern starting at the low points or drains location. Stagger all end laps.
   b. Ultra-Guard GB or GB FR Protection Course:
      1. Install onto cured cold fluid applied waterproofing membrane.
      2. Where protection course is used lap membrane 2 inches on side laps and 6 inches on end laps.
      3. Install the protection course membrane in full continuous sheets in a shingle pattern starting at the low points or drains location. Stagger all end laps.
   c. Extruded flexible twin wall board made of polypropylene copolymer:
      1. Install onto cured cold fluid applied waterproofing membrane.
      2. Install protection course with manufacturer recommended adhesive.
      3. Contact manufacturer for recommended installation procedures.
   d. Prefabricated drain board:
      1. Refer to Section 3.05
      2. Contact manufacturer for recommended installation procedures.
   e. Insulation:
      1. Refer to Section 3.06
      2. Contact manufacturer for recommended installation procedures.
   f. Asphaltic Concrete Pavement
      1. 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. Overlap core flange with core flange of adjacent sheet a minimum of 1 inch and top layer of filter fabric a minimum of 2 ½ inches.
C. Cut core and fabric to fit tightly around penetrations.
D. 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

UltraGuard HA-551

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: 05/15/2020 Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Fluid applied, solvent borne, elastomeric air, vapor and water barrier

Product Name: Ultraguard HA-551

Product Number: 34551

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

This is a voluntary SDS. Under normal use this product is not expect to create any health or environmental hazards. This product meets the requirements **of 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).**

Under United States Regulations (29 CFR 1900.1200 – OSHA Hazard Communication Standard) the product listed above is exempt as an article under normal conditions of use. In Canada, this product is considered a manufactured article under the Workplace Hazardous Materials Information System (WHMIS) and is exempt. Under normal conditions of use the product listed in this SDS is not expected to pose a physical hazard or health risk to humans. These products do not contain any form of asbestos materials. The component exposure limits and other information in this document are provided for abnormal or emergency circumstances such as heating (above 250F), burning, cutting, sanding and/or grinding when there is a potential for exposure to these components.

Classification of the Substance or Mixture

Classification (GHS-US)

Not classified

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) : None

Signal Word (GHS-US) : Not classified

Precautionary Statements (GHS-US) : Not classified

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Asphalt	(CAS No) 8052-42-4	40-70	
Petroleum Distillates	(CAS No) 64742-52-5	.1-25	

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Discard any shoes or clothing items that cannot be decontaminated.
Inhalation: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
Get medical attention, if needed. Call a physician if symptoms develop or persist.
Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Thoroughly wash (or discard) clothing and shoes before reuse.
Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Get medical attention if irritation develops and persists.
Ingestion: Rinse mouth. Do not induce vomiting. Do not use mouth-to-mouth method if victim ingested the substance. Call a POISON CENTER or doctor/physician if you feel unwell.

Indication of Immediate Medical Attention and Special Treatment Needed

In case of ingestion, the decision of whether or not to induce vomiting should be made by the attending physician. Certain pre-existing conditions may make workers particularly susceptible to the effects of this chemical: asthma, allergies, impaired pulmonary function.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Addition of water or foam to the fire may cause frothing.
Unsuitable Extinguishing Media: Do not use a solid water stream as it may scatter and spread fire.

Hazardous Combustion Products

Fire may produce irritating, corrosive and/or toxic gases. Development of hazardous combustion gases or vapors possible in the event of a fire. The following may develop: Acrolein.

Advice for Firefighters

Precautionary Measures Fire: Not available
Special Protective Equipment and Precautions for Firefighters: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Firefighters should wear full protective clothing including self-contained breathing apparatus. Structural fire fighters protective clothing will only provide limited protection.
Specific Methods: In the event of fire and/or explosion do not breathe fumes. In the event of fire, cool tanks with water spray. Use water spray to cool unopened containers.

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: Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Ventilate closed spaces before entering them. Do not touch or walk through spilled material.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).
For Emergency Personnel

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Runoff or release to sewer, waterway or ground is forbidden.

Methods and Materials for Containment and Cleaning Up

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Dike far ahead of spill for later disposal. Following product recovery, flush area with water.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

The product is non-combustible. If heated, irritating vapors may be formed. Do not use in areas without adequate ventilation. Wash hands thoroughly after handling. Wash hands after handling. Observe good industrial hygiene practices.

Conditions for Safe Storage, Including Any Incompatibilities

Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a well-ventilated place. Keep the container tightly closed and dry. Store in a closed container away from incompatible materials. Keep out of the reach of children.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV	OSHA PEL	Ontario TWAEV	Mexico
Asphalt	TWA: 0.5 mg/m3	TWA: 15 mg/m3 TWA: 5 mg/m3	TWA: 0.5 mg/m3	STEL: 10 mg/m3 TWA: 5 mg/m3
Petroleum Distillates	TWA: 0.5 mg/m3	TWA: 5 mg/m3		

Personal Protective Equipment

Eye/face Protection

Wear safety glasses; chemical goggles (if splashing is possible). Wear chemical goggles; face shield (if handling molten material).

Skin Protection

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene Measures

When using, do not smoke. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Appearance: Solid
Odor: Product is a black, semi-solid with a burnt tar odor.
Physical State: Solid
Flash Point: > 400.0 °F (> 204.4 °C)
AutoignitionTemperature: > 700 °F (> 371.11 °C)
Melting Point: 150 - 250 °F (65.56 - 121.11 °C) ASTM D36 Softening Point
Boiling Point/Range: > 800 °F (> 426.67 °C)

SECTION 10: STABILITY AND REACTIVITY

Stability: This product is stable.
Conditions to Avoid: Strong oxidizing agents.
Incompatible Materials: Incompatible with oxidizing agents.
Hazardous Decomposition Products: Upon decomposition, product emits acrid dense smoke with carbon dioxide, carbon monoxide, trace oxides of nitrogen and sulfur, and water.
Possibility of Hazardous Reactions: None under normal processing

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Ingestion: May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.
Inhalation: May cause irritation to the respiratory system.
Skin contact: Irritating to skin.
Eye contact: Causes eye irritation. Molten material will produce thermal burns.
Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/eye Irritation: Irritating to eyes.
Skin sensitization: Irritating to skin.

Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.
Reproductive toxicity: Contains no ingredient listed as toxic to reproduction
Specific target organ toxicity
- single exposure
Not available.
Specific target organ toxicity
- repeated exposure
Not available.
Aspiration hazard: Not available.
Chronic effects: Prolonged inhalation may be harmful. May cause eczema-like skin disorders (dermatitis).

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity
This product has no known eco-toxicological effects. Not expected to be harmful to aquatic organisms.
Persistence/Degradability: Not available
Bioaccumulation/ Accumulation: Not available
Mobility in Environmental Media: Not available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of contents/container in accordance with local/regional/national/international regulations.
When this product as supplied is to be discarded as waste, it does not meet the definition of a RCRA waste under 40 CFR 261.
Unused and Contaminated Product: Offer rinsed packaging material to local recycling facilities.

SECTION 14: TRANSPORT INFORMATION

DOT: Not regulated
TDG: Not regulated
MEX: Not regulated
ICAO: Not regulated
IATA: Not regulated
IMDG/IMO: Not regulated

SECTION 15: REGULATORY INFORMATION

US federal regulations: All components are on the U.S. EPA TSCA Inventory List.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): Not regulated.
CERCLA Hazardous Substance List (40 CFR 302.4): Not listed.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Not listed.
Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories:
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No
SARA 302 Extremely hazardous substance: Not listed.
SARA 311/312
Hazardous chemical: No
SARA 313 (TRI reporting): Not regulated.
Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List: Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): Not regulated.
Safe Drinking Water Act (SDWA): Not regulated.

US state regulations WARNING: This product contains a chemical known to the State of California to cause cancer.
US. Massachusetts RTK - Substance List: Not regulated.
US. New Jersey Worker and Community Right-to-Know Act: Not regulated.
US. Pennsylvania RTK - Hazardous Substances: Not regulated.
US. Rhode Island RTK: Not regulated.
US. California Proposition 65: Not Listed.
International Inventories
Australia Australian Inventory of Chemical Substances (AICS): Yes
Canada Domestic Substances List (DSL): Yes
Canada Non-Domestic Substances List (NDSL): No
China Inventory of Existing Chemical Substances in China (IECSC): No
Europe European Inventory of Existing Commercial Chemical Substances (EINECS): Yes
Europe European List of Notified Chemical Substances (ELINCS): No
Japan Inventory of Existing and New Chemical Substances (ENCS): Yes
Korea Existing Chemicals List (ECL): Yes
New Zealand New Zealand Inventory: Yes
Philippines Philippine Inventory of Chemicals and Chemical Substances (PICCS): Yes
United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory: Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16: OTHER INFORMATION

Revision date : 05/06/2020

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.
P.O. Box 743
Matthews, NC 28106

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.

ULTRA-GUARD® HA-551

7 FLUID APPLIED | Membrane Waterproofing

PRODUCT DESCRIPTION

Ultra-Guard® HA-551 is a hot-applied, seamless waterproofing membrane. This 100% solids rubberized, asphalt-based formula is fluid applied to form a continuous, fully adhered waterproofing system, over a variety of substrates.

Apply this flexible, high-build material to surfaces that require a layer of waterproofing before adding a covering such as tile, concrete, asphalt, pavers, or vegetative roof system.

- Flexible waterproofing membrane
- Retains its elongation and elastomeric properties
- Bridges shrinkage cracks
- 100% solids
- Cures quickly
- Low-odor product, minimizing concerns in VOC-sensitive areas
- Fluid-applied to form a continuously adhered waterproofing system
- Meets CGSB-37.50-M89
- Resistance to Acid: 50% sulfuric, no blistering, deterioration, delamination or re-emulsification
- Resistance to Salt Water: 20% (NaCo & NaCl), no blistering, deterioration, delamination or re-emulsification
- Resistance to Fertilizer: 15/5/5 Fertilizer, no blistering, deterioration, delamination or re-emulsification
- Water Resistance: No delamination, blistering, re-emulsification or deterioration

Storage and Handling Considerations:

Store in original, undamaged packaging in a clean, dry, protected location with temperatures between 55° to 85°F (12° to 30°C). Keep away from open flames, hot surfaces and sources of ignition. Keep out of the reach of children. Do not stack pallets or remove protective covering. Pallets may be stored outdoors if the protective covering is left intact.

INSTALLATION

Surface Preparation & Priming:

The surface should be uniform and absent of any voids larger than 1/8" (0.32 cm). Some substrates may require shot blasting, sandblasting, or other appropriate cleaning prior to Ultra-Guard® HA-551 application. Surfaces to be coated should be free of paint, oil, rust and contaminants. Prime surface with Ultra-Guard® Primer (meeting ASTM D-41). Spray or roll primer uniformly to the prepared surface at a rate of 125-175 sq/ft per gal. Allow all metal surfaces that Ultra-Guard® HA-551 will be in contact with, such as: HVAC units, vents, flashings, etc., to dry completely before applying Ultra-Guard® HA- 551.

Prepare all cracks and joints and install vertical flashings before installing the Ultra-Guard® HA-551 waterproofing membrane. See Ultra-Guard® HA-551 Application Guide for detailed information on proper preparation of cracks, control joints, vertical flashings and vertical penetrations.

Melting:

Ultra-Guard® HA-551 must be melted in a double boiler- type melting unit equipped with agitation and recirculation systems capable of safely heating Ultra-Guard® HA-551 to 400°F (204.4°C). The temperature of the heat transfer oil should not exceed 525°F (273.9°C).

Caution:

Do not agitate when adding new blocks of material. Most oil jacketed melters have a thermostat switch that can be set to shut off the heating unit once the desired temperature is met.

Application:

Apply Ultra-Guard® HA 551 at 380° to 400°F (193.3°- 204.4° C) to the prepared surface by pouring or pumping from the melter at a minimum of 115 mils (0.115") thick. Distribute the material evenly on deck surfaces using a flat blade squeegee, approximately 18"-wide and 3/16 - 1/16" thick (45 cm wide and 0.48 – 0.16 cm thick). For vertical application, a roof mop may be more beneficial. If bubbles or other outgassing appear, apply additional material.

After base layer is applied, immediately roll in Ultra-Guard® HA-Scrim, Ultra-Guard® Reinforcement Fabric into the hot Ultra-Guard® HA-551. When reinforcement is embedded, apply top layer of Ultra-Guard® HA-551 at a minimum of 100 mils (0.10") thick. The total membrane thickness should be at least 215 mils (0.215") but may be higher. The Ultra-Guard® HA-551 system should be covered as soon as possible with either: Ultra-Guard® GB or Ultra-Guard® GB-FR, rigid insulation, polyethylene sheeting, protection boards, roll roofing, pavers, or asphalt-saturated sheets. These products protect the Ultra-Guard® HA-551 membrane from punctures, abrasions, and UV exposure.

See Application Guide for general application guidelines, and project specifications for specific application instructions. Contact GMX's Technical Department with questions.

Clean Up:

Clean equipment lines using mineral spirits or non-flammable equivalent. All heat sources must be extinguished before clean-out begins. Remove all solvent from the melting tank prior to the next use of the kettle as sealant dilution and flash problems may occur.

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 offer several commercial warranties, 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 onsite application assistance. For further information, please contact our Technical Service Dept. at 866-228-7743.

ULTRA-GUARD® HA-551

7 FLUID APPLIED | Membrane Waterproofing

GMX
A Garland Industries Subsidiary

COMMERCIAL

TECHNICAL DATA | PRODUCT SPECIFICATIONS: Type: Ultra-Guard® HA-551

Test Name	Reference	Requirement	Test Results
Flash point (C°)	ASTM D92	≥260°C (500°F)	338°C (640°F)
Cone Penetration (dmm) @ 25 ± 2°C	ASTM D5329	≤110	40
Cone Penetration (dmm) @ 50 ± 2°C	ASTM D5329	≤200	99
Flow (mm)@140°F	ASTM D5329	≤3	0
Viscosity (s)	CAN/CGSB 37.50-M89	2≤ x ≤15	4
Toughness (J)	CAN/CGSB 37.50-M89	≥ 5.5	29
Toughness to Peak Load	CAN/CGSB 37.50-M89	≥ 0.040	0.097
Toughness Adhesion Rating	CAN/CGSB 37.50-M89	Pass	Pass
Water Vapor Permeance (ng/Pa-s-m²)	ASTM E96 E	≤1.7	0.6
Water Absorption (g)	CAN/CGSB 37.50-M89	-0.18≤ x ≤0.35	0.06
Pinholing (# of observed holes)	CAN/CGSB 37.50-M89	≤1	0
Low Temperature Flex	CAN/CGSB 37.50-M89	Pass	Pass
Crack Bridging Capability	CAN/CGSB 37.50-M89	Pass	Pass
Heat Stability	CAN/CGSB 37.50-M89	Pass	Pass
Cone Penetration (dmm) After Heat Ageing @ 25 ± 2°C	ASTM D5329	≤110	39
Cone Penetration (dmm) After Heat Ageing @ 50 ± 2°C	ASTM D5329	≤200	97
Flow (mm) After Heat Ageing	ASTM D5329	≤3	0
Viscosity (s) After Heat Ageing	CAN/CGSB 37.50-M89	2≤ x ≤15	4
Low Temperature Flex After Heat Ageing	CAN/CGSB 37.50-M89	Pass	Pass
Water Resistance	CAN/CGSB 37.50-M89	Pass	Pass
Resiliency	ASTM D5329	40% minimum	>40%
TAS 114 H (lbf @ max load)Direct to Concrete	TAS 114 H	N/A	538
Fire Test for Roof Coverings	ASTM E108	Classification	Class A
Ambient Temperature Restrictions			Above 0°F (-17°C)
Chemical Resistance	ASTM D896	No Blistering, Deterioration or Re-emulsifaction	Pass: water, calcium chloride, salt, mild acid, alkaline solutions
Coverage			Base Layer: 115mils Top Layer: 100 mils Total System: 215 mils
Packaging			30 lb. Box with Polyethylene Bag
Miami Dade NOA			No: 24-0430.05

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, 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).

GMX

GMX, INC. ISO 9001:2015 REGISTERED TO

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Monroe, NC 28110
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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.

APPLICATION GUIDE

Ultra-Guard HA-551

DESCRIPTION

Ultra-Guard HA-551 is a hot-applied, rubberized asphalt-based composition specifically formulated to form a seamless, fully adhered waterproofing membrane over a variety of substrates. Ultra-Guard HA-551 complies with requirements of Canadian General Standards Board specification 37.50-M89.

USES

Ultra-Guard HA-551 is a versatile waterproofing system ideal for CMU and concrete foundations, parking structures, walkways, terraces, and planter boxes as well as other instances where a monolithic waterproofing membrane is required. This flexible, high-build material is applied beneath covering surfaces such as concrete, asphalt, tile, pavers or vegetative systems.

SURFACE PREPARATION

A. Clean

Remove all foreign matter such as dust, moisture, excess laitance, curing compound, soap, oil or grease, etc. Note that some concrete decks may require shot blasting or sandblasting or other appropriate cleaning prior to membrane application. Concrete decks need to achieve a surface profile of CSP 2 or 3.

B. Dry

The surface shall also be sufficiently dry to minimize bubbling, which may occur during membrane application. Structural weight concrete must be cured/dry a minimum of 28 days prior to application.

C. Prime

Priming is required for improved adhesion. Apply Ultra-Guard Primer, which meets the requirements of ASTM D-41, by uniformly spraying or rolling to the dried surface at a rate of 125 to 175 sq. ft. per gallon.
Allow all metal surfaces that the membrane will be bonded to – HVAC ducts, vents, flashings, etc. – to completely dry before membrane application proceeds.

D. Prepare Cracks, Joints and Flashings

Proper preparation of cracks and joints is critical to the performance of the Ultra-Guard HA-551 system. The surface should be uniform and not have any surface protrusions/ inconsistencies more than 1/8" (0.32 cm). Crack, joint and uniformity pre- treatments shall be performed prior to membrane application as follows:

a. Less than 1/16" (0.16 cm) wide: Cracks less than 1/16" (0.16 cm) wide do not require any special treatment prior to membrane application.

b. Between 1/16"- 1/4" (0.16 - 0.625 cm) wide: Apply a band of Ultra- Guard HA-551 membrane over the crack and extend a minimum of 5" (12.5 cm) on each side of the crack or joint. Embed a 6" (15 cm) wide Ultra-Guard HA-Scrim or Ultra-Guard Reinforcing Fabric into the hot membrane and centered over the crack or joint. Overlap reinforcing strip ends a minimum of 2" (5 cm), ensuring lap receives rubberized asphalt. Please note that this pretreatment is applicable for movements up to 50% of the joint width.

c. Between 1/4" – 1/2" (0.625 - 1.25 cm) wide: Apply a band of Ultra- Guard HA-551 membrane on each side of the crack at least 6" (15 cm) on each side of the crack. Embed a 9" (22.5 cm) wide piece Ultra-Guard HA-Scrim or Ultra-Guard Reinforcing Fabric into the hot membrane centered over the crack. Overlap reinforcing strip ends a minimum of 2" (50 cm), ensuring lap receives rubberized asphalt. Topcoat the crack area with 90 mils Ultra-Guard HA 551 12" (30 cm) wide an embed a 9" (22.5 cm) wide piece of Ultra-Guard GB or Ultra-Guard GB-FR into the coating. Please note that this pretreatment is applicable for movements up to 50% of the joint width.

d. Between 1/2" – 1" (1.25 – 2.5 cm) and all control joints: Loop 18" wide Ultra-Guard Flashprene UN, uncured Neoprene flashing (min. 60 mil thick) in a U shape manner down into the crack or joint to a depth of 2 times the width of the opening. Apply Ultra-Guard HA-551 13" (33 cm) to both sides of the opening and embed the rubber flashing in the membrane while hot. Lap all ends of the flashing 6" (15 cm) and seal with Ultra-Guard HA-551. Allow to cool. Once cool, fill the looped flashing trough with Ultra-Guard HA-551 and extend over the flashing at a height of 90 mills 13" (33 cm) wide. While hot and tacky, embed an 18" wide piece of Ultra- Guard HA Scrim or Ultra-Guard Reinforcing Fabric into the coating.

e. Horizontal and vertical discontinuities (duct work, flashings, vents, etc.): Apply an initial band of membrane a minimum of 6" (15.2 cm) on the horizontal plane and at least 3" (7.6 cm) in the vertical plane. Center and apply a layer of Ultra-Guard HA-Scrim or Ultra-Guard Reinforcing Fabric at least 4" (10.1 cm) wide.

f. Confirm that all abnormalities and transition points, as detailed in the previous steps, have been reinforced.

APPLICATION

A. Melt

Ultra-Guard HA-551 must be melted in a double boiler-type melting unit equipped with both agitation and recirculation systems. The temperature of the heat transfer oil should not exceed 525°F (273.9°C). The melting unit must be capable of safely heating the product to 400°F (204.4°C). Once melted, the pot life of Ultra-Guard HA-551 is approximately 12-15 hours. Pot life may be extended by adding fresh blocks as the material is applied and the quantity remaining in the kettle decreases.

Caution: Do not agitate when adding new blocks of material.

Note: If primer has been left exposed for more than 24 hours, then re-priming is required.

B. Apply

Apply Ultra-Guard HA-551 to the prepared surface by either pouring or pumping from the melter applicator at temperatures of 380-400 F (193.3- 204.4oC). Distribute the material evenly on the deck surface using a silicone rubber or other appropriate squeegee approximately 18" (45.7 cm) wide to a nominal thickness of 3/16 - 1/16" (.48 - .16 cm). In case of vertical applications, a roof mop may be more beneficial. First, apply one layer of Ultra-Guard HA-551 at 115 mils (0.115") thick. Next, embed Ultra-Guard HA-Scrim or Ultra-Guard Reinforcing Fabric into the hot membrane material. If the system reaches a vertical lip in the concrete, which is smaller than a flashing, turn up the reinforcement edges along the lip. On top

of the reinforcement, apply an additional layer of Ultra-Guard HA-551 at 100 mils (0.10") thick. Total system will equal at least 215 mils (0.215"). Moisture in the surface may cause bubbling in the membrane. If bubbles or other defects appear during membrane application, apply additional material. To provide a non- tacky surface for subsequent work, the membrane may be dusted with fine material powder (minus No. 200 mesh) lime or cement.

C. Install Protective Barrier
Install a protective layer over the top of the Ultra-Guard HA-551 system in horizontal applications. The correct type of protection barrier will be determined by the project's specific needs. Use approved membrane barrier, Ultra-Guard HA Scrim, Ultra-Guard GB or Ultra-Guard GB-FR. The protection course can be embedded into the hot membrane or adhered with Ultra-Guard EFS as an adhesive. The membrane should be covered as soon as possible; do not leave uncovered for more than 48 hours.

D. Cover
Following membrane application, install the protective system for the intended use. Typical types of protective surfaces include vegetative roof, pavers, decorative tiles, concrete, or asphalt pavement.

CLEAN UP
Clean equipment lines using mineral spirits or non-flammable equivalent. All heat sources must be extinguished before the clean out begins. Remove all solvent from the melting tank prior to the next use of the kettle as sealant dilution and flash problems may occur.

WEATHER CONDITIONS
Do not attempt application if ice, snow, moisture or dew is present. Bonding substrates must be clean, dry and free of dust or other inhibitors for proper adhesion. Contact your GMX Sales Representative for proper cold weather applications.

STORAGE
Store in original, undamaged packaging in a clean, dry, protected location with temperatures between 55 to 85oF (12 to 30oC). Keep away from open flames, hot surfaces and sources of ignition. Keep out of the reach of children. Do not stack pallets or remove protective covering. Pallets may be stored outdoors if the protective covering is left intact. Do not leave uncovered for more than 48 hours.

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ULTRA-GUARD FLASHPRENE UN

7 FLUID APPLIED | Flexible Flashing Accessory

A Garland Industries Subsidiary

COMMERCIAL

GENERAL DESCRIPTION

Ultra-Guard Flashprene UN is a thermoset flashing material made of uncured neoprene rubber.

BASIC USE

Ultra-Guard Flashprene UN is typically used as the heavy-duty reinforcing and exposed flashing membrane in conjunction with GMX's Ultra-Guard HA 551 rubberized waterproofing membrane. Ultra-Guard Flashprene UN's unique properties provide ease in forming around penetrations and corners as well as detailing expansion / control joints and drains.

SIZES

The Ultra-Guard Flashprene UN membrane is available in a standard thickness of 60 mils (0.060 inch), standard widths of 12, and 18 inches, and a length of 100.5 feet.

TECHNICAL DATA | PRODUCT SPECIFICATIONS
Type: Ultra-Guard Flashprene UN

Thickness, Inches ASTM D751	.060 + 10%
Width, inches ASTM D751	12, 18 inches
Length, Feet ASTM D751	100 + .5 foot
Tensile Strength, minimum PSI ASTM D412 Die C	1800
Elongation, Ultimate, minimum % ASTM D412	300
Tear Resistance, minimum, lbf/inch ASTM D624 Die C	175
Brittleness Point Temperature ASTM D746	-40ºF
Ozone Resistance 168 hours/ 100 PPHM/104º F. 40ºC./50% ext ASTM D1149	No Cracks @ 7X magnification
Resistance to Water Absorption, % increase in weight max after 7 days @ 75º F. ASTM D471	1%

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, Processed and Manufactured Regionally

SHIPPING INFORMATION

Proper Shipping Name:	Non-regulated material Water-based asphalt emulsion
Hazard Class:	Not Applicable
Identification:	Not Applicable
Packaging Group:	Not Applicable

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

CAUTION: Ultra-Guard Flashprene UN is a water-based material. KEEP FROM FREEZING DURING TRANSIT AND STORAGE.

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Article

Article No.: 050109 **Version:** 2025.05

Dear Customer:

According to Federal Regulations, GMX roofing products commercially available under the following names:

Bilar®
CS Insulation
FasTape SRA W
Drain Max® 200, P200
Drain Max® 220
Drain Max® 380
Drain Max® 500, P500
Drain Max® 520, P520
Drain Max® 650
Drain Max® Strip Drain
Drain Max® R-70 Sheet core
Drain Max® R-74/R-76/R-78 Sheet drain
Drain Max® GR 50
Drain Max® GR 100
Drain Max® Base Drain
Drain Max® Base Drain Universal End Outlet
Drain Max® Base Drain Universal Tee Outlet
Drain Max® 12” Corner Guard
Drain Max® Strip Drain
Drain Max® Total Drain
Perimate
Ultra-Dry Board
Ultra-Shield Self Stick Membrane
Ultra-Shield Self Stick Sealing Tape
X-IE 6-50 PH52

... 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 a 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 Dr
Monroe, NC 28110

ULTRA-GUARD® GB

7 FLUID APPLIED | Membrane Waterproofing

GMX
A Garland Industries Subsidiary

COMMERCIAL

PRODUCT DESCRIPTION

Ultra-Guard® GB SBS modified bitumen base sheet with excellent weatherability, which enhances the overall flexibility and fatigue resistance of both hot and cold fluid applied waterproofing systems. Ultra-Guard® GB is composed of select distilled bitumen and SBS, reinforced with a high strength fiberglass mat.

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

Storage and Handling Considerations: Rolls 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 high.

APPLICATION

Ultra-Guard® GB can be embedded directly into the hot Ultra-Guard® HA-551 System or adhered using Ultra-Guard® EFS as an adhesive. Ultra-Guard® GB can be adhered to fully cured Ultra-Guard® Elastomeric HB with Ultra-Guard® EFS. In both systems, the Ultra-Guard® GB should be installed with sides and ends abutted.

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.

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.

TECHNICAL DATA | PRODUCT SPECIFICATIONS
Type: Ultra-Guard® GB

Modifier	SBS
Approx. Roll Size	39” x 49.4’
Seam Width	3”
Approx. Coverage	160 sq. ft.
Top Surface	Slag
Bottom Surface	Slag
Nominal Thickness	2 mm
Nominal Weight	70 LBS.
Reinforcement	Fiberglass Mat
Softening Point (ASTM D-36)	240°F (116°C)
Cold Flexibility (ASTM D-5147)	-30°F (-34.4°C)
Tensile Strength (ASTM D-5147)	MD=42 lbf/in XMD=44 lbf/in MD=116 lbf/in XMD=92 lbf/in
Elongation (ASTM D-5147)	4% (MD) 4% (XMD)

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, Pr ocessed and Manufactured Regionally
MR Credit 5.2:	Regional Materials: 20% 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).

GMX

GMX, INC. ISO 9001:2015 REGISTERED TO

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

UltraGuard HA-GB

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: 06/16/2020 Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: UltraGuard HA-GB

Product Number:

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)

SECTION 2: HAZARDS IDENTIFICATION

This is a voluntary SDS. Under normal use this product is not expect to create any health or environmental hazards. This product meets the requirements **of 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).**

Under United States Regulations (29 CFR 1900.1200 – OSHA Hazard Communication Standard) the product listed above is exempt as an article under normal conditions of use. In Canada, this product is considered a manufactured article under the Workplace Hazardous Materials Information System (WHMIS) and is exempt. Under normal conditions of use the product listed in this SDS is not expected to pose a physical hazard or health risk to humans. These products do not contain any form of asbestos materials. The component exposure limits and other information in this document are provided for abnormal or emergency circumstances such as heating (above 250F), burning, cutting, sanding and/or grinding when there is a potential for exposure to these components.

Classification of the Substance or Mixture

Classification (GHS-US)

Flam. Liq. 2	H225
Acute Tox. Oral 4	H302
Irr. Skin 2	H315
Corr. Eye 2A	H319
Damage Eye 2B	H320
Carc. 1	H350
Carc. 2	H351
STOT RE 1	H372

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :

GH502 GH507 GH508

Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) :

H225 - Highly flammable liquid and vapor
H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 – Causes serious eye irritation
H320 - Causes eye irritation
H350 - May cause cancer by route of exposure if conclusively proven that no other route applies
H351 – Causes damage to organs through prolonged or repeated exposure by route of exposure if conclusively proven that no other route applies suspected of causing cancer
H372 - Causes damage to organs through prolonged or repeated exposure by route of exposure if conclusively proven that no other route applies

Precautionary Statements (GHS-US) :

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P314 - Get medical advice/attention if you feel unwell.
P321 - Specific treatment (see supplemental instructions on the administration of antidotes on this label).
P330 - Rinse mouth.
P332 + P313 - If skin irritation occurs: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P370 + P378 - In case of fire: Use for extinction.
P403 + P235 - Store in a well-ventilated place. Keep cool.
P501 – Dispose of contents/container to hazardous or special waste collection point.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Asphalt	(CAS No) 8052-42-4	30-60	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 Carc. 2, H351
Fiber Glass Mat 1 **Contains:** Fibrous Glass (Oxides of Silicon, Aluminum, Iron, Calcium, Potassium, Titanium, Magnesium, Sodium)	(CAS No) 65997-17-3	10-20	Carc. 1, H350
Recycled Glass, Slag & Mineral2 **Contains:** Crystalline Silica (Quartz)	(CAS No) 14808-60-7	0-0.1	Carc. 1, H350 STOT RE 1, H372
Calcium Carbonate	(CAS No) 1317-65-3	10-20	Acute Tox. Oral 4, H302 Skin Corr. Irr. 2, H315 Eye Irr. 2B, H320 STOT RE 1, H372

1. The exposure to the substance above the limits of exposure is not likely to occur considering its form (incorporated in the mixture) and/or the provided use. The limit of exposure is given for reference only.

2. A proportion of crystalline silica may be present in the surfacing on some membranes. The crystalline silica contained on the surface of the membrane is not likely to be found in the ambient air in concentration above the limit of exposure since it adheres to the surface of the membrane.

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Discard any shoes or clothing items that cannot be decontaminated.

Inhalation: Remove to fresh air.

Skin Contact: Wash gently with soap and water with soap and plenty of water removing all contaminated clothes and shoes.

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Ingestion: DO NOT induce vomiting. Prevent aspiration of material into lungs. Seek immediate medical attention.

Indication of Immediate Medical Attention and Special Treatment Needed

In case of ingestion, the decision of whether or not to induce vomiting should be made by the attending physician. Certain pre-existing conditions may make workers particularly susceptible to the effects of this chemical: asthma, allergies, impaired pulmonary function.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Foam. Carbon dioxide (CO2). Sand. Dry chemical.

Unsuitable Extinguishing Media: Not available.

Hazardous Combustion Products

Black smoke, Hydrogen sulfide, sulfur dioxide.

Advice for Firefighters

Precautionary Measures Fire: Not available

Special Protective Equipment and Precautions for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Specific Methods: Keep product and empty container away from heat and sources of ignition

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: Material is not normally involved in a spill/release scenario.

For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

For Emergency Personnel

Environmental Precautions

No information available.

Methods and Materials for Containment and Cleaning Up

Wash spill area with soap and water.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with skin, eyes and clothing

Conditions for Safe Storage, Including Any Incompatibilities

Store upright to prevent creasing. Keep out of the reach of children.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV	OSHA PEL	Ontario TWAEV	Mexico
Asphalt	TWA: 0.5 mg/m3	TWA: 15 mg/m3 TWA: 5 mg/m3	TWA: 0.5 mg/m3	STEL: 10 mg/m3 TWA: 5 mg/m3
Crystalline Silica (Quartz)	TWA: 0.025 mg/m3	TWA: 0.1 mg/m3	TWA: 0.1 mg/m3	TWA: 0.1 mg/m3
Calcium Carbonate	TWA: 15 mg/m3 TWA: 5 mg/m3	TWA: 10 mg/m3	STEL: 20 mg/m3 TWA: 10 mg/m3	

Chemical Name	NIOSH IDLH
Crystalline Silica (Quartz)	50 µg/m3

1. Because the substances listed above are incorporated into the product in a solid stable mixture, exposures exceeding the exposure limits are not likely to occur under normal conditions of use. The component exposure limits are provided for abnormal or emergency circumstances such as heating (above 250F), burning, cutting, sanding and/or grinding when there is a potential for exposure to these components. The limit of exposure is given for reference only.

Personal Protective Equipment

Eye/face Protection

Safety glasses with side-shields.

Skin Protection Respiratory Protection

Protective gloves. Long pant and long sleeve shirt.

If ventilation is not sufficient to control exposures below TLV or PEL, use an appropriate properly fitted NIOSH approved respirator.

Hygiene Measures

If this product is hot-applied with asphalt or an asphalt based adhesive, workers may be exposed to asphalt fumes released from the hot asphalt. Although there is no evidence that the fumes and emissions that occur in these operations emanate from the product during hot application operations, precautions should be taken to minimize worker inhalation and dermal exposures to the fumes emanating from the hot asphalt. During these installations roofing contractors and workers should adhere to the engineering controls, work practices and personal protective equipment (including respirator) recommendations published by the National Institute for Occupational Safety and Health (NIOSH). See DHHS (NIOSH) Publication No. 2003- 107, entitled “Reducing Roofers’ Exposure to Asphalt Fumes”.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Appearance: Fibrous Membrane
Odor: Petroleum
Physical State: Solid
pH: Not Available
Flash Point: Not Available
AutoignitionTemperature: Not Available
Boiling Point/Range: Not Available
Freezing Point: Not Available
Flammability Limits in Air: Not Available
Explosive Properties: Not Available
Oxidizing Properties: Not Available
Evaporation Rate: Not Available
Vapor Pressure: Not Available
Vapor Density: Not Available
Specific Gravity: Not Available
Water Solubility: Not Available
Volatiles: Not Available

SECTION 10: STABILITY AND REACTIVITY

Stability: This product is stable.
Conditions to Avoid: Open flames and intense heat.
Incompatible Materials: Acids, strong bases, organic solvents.
Hazardous Decomposition Products: None under normal processing.
Possibility of Hazardous Reactions: None under normal processing.

SECTION 11. TOXICOLOGICAL INFORMATION

Chemical Name	LD50 Oral	LD50 Dermal
Asphalt	5000 mg/kg Rat	2000 mg/kg Rabbit
Quartz (Crystalline Silica)	500 mg/kg Rat	

Chronic Toxicity

Bronchitis has been reported among workers exposed to asphalt in several human studies. Several animal studies have reported indications of emphysema, bronchiolar dilatation, pneumonitis, and localized bronchitis in guinea pigs, rats, and mice chronically exposed to bitumens during inhalation studies. NIOSH has found the data to be limited, precluding any determination concerning asphalt exposure related chronic pulmonary morbidity.

Carcinogenicity Asphalt:

While this product presents no hazard in its normal and intended use; FOR INSTALLATIONS THAT UTILIZE HOT APPLIED OXIDIZED ASPHALT (CAS # 64742-93-4): Chronic toxicity of asphalt fumes arise from hot asphalt. When this article is installed with a "cold application", defined as the use of asphaltic or non-asphaltic solvent or non-solvent borne adhesives, and used as directed; it is unlikely to create hazardous levels of asphalt emissions. As a result of the following conclusions, care must be taken in the use of hot applied oxidized asphalt systems. The International Agency for Research on Cancer (IARC) has determined that "occupational exposure to oxidized bitumens and their emissions during roofing" are classified as "probably carcinogenic to humans" (Group 2A). IARC's determination was based primarily on a finding of "sufficient" evidence of carcinogenicity of in animals for extracts and fume condensates from oxidized asphalt. IARC's review of studies in humans concluded that the evidence on the carcinogenicity of oxidized asphalt emissions in roofers is "limited" because of potential confounding by exposures to carcinogens such as coal-tar and tobacco smoking could not be ruled out. The National Institute for Occupational Safety and Health (NIOSH) has determined that

roofing asphalt fumes are a "potential occupational carcinogen." In support of this finding, NIOSH determined that data from experimental studies in animals and cultured mammalian cells indicate that laboratory-generated roofing asphalt fume condensates are genotoxic and cause skin tumors in mice when applied dermally. Like IARC, NIOSH concluded that he results from epidemiologic studies indicate that roofers exposed to asphalt fumes are at an increased risk of lung cancer, but it is uncertain whether this increase can be attributed to asphalt and/or to other exposures such as coal tar or asbestos.

Component Carcinogenicity

ACGIH, IARC, OSHA and NTP carcinogen lists were checked for those components with CAS registry numbers.

Petroleum asphalt (8052-42-4)

ACGIH: A4 – Not Classifiable as a Human Carcinogen (related to Asphalt fumes)

Respirable Crystalline Silica (14808-60-7)

IARC: Carcinogenic to humans (Group 1) NTP: Known to be a human carcinogen

ACGIH: Suspected Human Carcinogen (Class A2)

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

No information available.

Persistence/Degradability: This product is not biodegradable.

Bioaccumulation/ Accumulation: No possible bioaccumulation and unlikely bioconcentration in the food chain.

Mobility in Environmental Media: Not available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of contents/container in accordance with local/regional/national/international regulations.

When this product as supplied is to be discarded as waste, it does not meet the definition of a RCRA waste under 40 CFR 261.

Additional Information: Prevent runoff from entering drains, sewers, or waterways.

SECTION 14: TRANSPORT INFORMATION

DOT: Not regulated

TDG: Not regulated

MEX: Not regulated

ICAO: Not regulated

IATA: Not regulated

IMDG/IMO: Not regulated

SECTION 15: REGULATORY INFORMATION

International Inventories

All of the components in the product are on the following Inventory lists:

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	CHINA	KECL	PICCS	AICS
Asphalt	X	X	X	X	X	X	X	X	X	X
Fibrous Glass (Oxides of Silicon, Aluminum, Calcium)	X	X	X	X	X	X	X	X	X	X
Crystalline Silica (Quartz)	X	X	X	X	X	X	X	X	X	X
Calcium Carbonate	X	X	X	X	X	X	X	X	X	X

TSCA: Complies

DSL: Complies

NDSL: Complies

EINECS: Complies

ELINCS: Complies

ENCS: Complies

CHINA: Complies

KECL: Complies

PICCS: Complies

AICS: Complies

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). 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.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any HAPs.

State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Asphalt	X	X	X		X
Crystalline Silica (Quartz)	X	X	X		X
Calcium Carbonate	X	X	X		X

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class

Not determined

SECTION 16: OTHER INFORMATION

Revision date : 06/16/2020

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.
P.O. Box 743
Matthews, NC 28106

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.

ULTRA-GUARD HA-SCRIM

7 FLUID APPLIED | Membrane Waterproofing

PRODUCT DESCRIPTION

Ultra-Guard HA-Scrim is a continuous filament, spunbonded, chemically treated, polyester bicomponent mat that is specifically formulated to accept hot bitumen and cold elastomeric fluids as bonding adhesives. Ultra-Guard HA-Scrim is the preferred material in the Ultra-Guard HA-551 and Ultra-Guard Elastomeric HB systems as it provides superior tensile strength and the elongation properties required to withstand thermal shock.

PRODUCT ADVANTAGES

Excellent Puncture and Abrasion Resistance: The Ultra-Guard HA and Ultra-Guard Elastomeric HB systems incorporate the use of a mat reinforcement. This polyester spunbonded bicomponent mat provides excellent puncture resistance and elongation capability. The mat imparts additional tensile strength and fire resistance. This unique mat is capable of withstanding punctures and abrasion far better than conventional scrim.

Inorganic, Rot-Proof Protection: Ultra-Guard HA-Scrim is an inorganic, rot-proof, highly engineered polyester mat. It will not wick or absorb moisture when properly coated with a fluid applied waterproofing.

Application Benefits: Easy to cut and position. No folds, wrinkles, or deformation. Full and fast saturation without air pockets. Easy handling, like paper, but with high-end nonwoven performance.

INSTALLATION

Application: After base layer of fluid applied waterproofing is applied, immediately roll in Ultra-Guard HA-Scrim into the freshly applied waterproofing. Once the mat is completely embedded, apply the second course of fluid applied waterproofing in accordance with currently published installation instructions. See Application Guide for general application guidelines, and project specifications for specific application instructions.

NOTE: Do not use Ultra-Guard HA-Scrim system with cold-applied adhesives when incorporated in the Ultra-Guard HA-551 System.

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 delivery, and may offer a commercial warranty, 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 HA-Scrim

Tensile Strength (ASTM D 5035)	MD 101 lbf./in. XD 88 lbf./in.
Tear Strength (ASTM D 5733)	MD 82.6 lbf./in. (14.5 kN/m) XD 75.8 lbf./in. (13.3 kN/m)
Elongation (ASTM D 5035)	MD 59.5% XD 67%
Weight per Area (ASTM D 4830)	5.9 oz./yd2 (200 g/m2)
Width	3 ft. 4 in. (1.01 m)
Length	324 ft. (98.75 m)
Weight	40 lb. (18.1 kg)
Nominal Thickness	30 mils (762 microns)
Net Coverage	1,000 sq. ft. (92.9 m2)
Packaging	12 rolls/pallet

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, Processed and Manufactured Regionally

SHIPPING INFORMATION

Proper Shipping Name:	Non-regulated material polyester fabric
Hazard Class:	Not Applicable
Identification:	Not Applicable
Packaging Group:	Not Applicable

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

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

011323

UltraGuard HA Scrim

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: 06/16/2020 Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: UltraGuard HA Scrim

Product Number:

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)

SECTION 2: HAZARDS IDENTIFICATION

This is a voluntary SDS. Under normal use this product is not expect to create any health or environmental hazards. This product meets the requirements **of 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).**

Under United States Regulations (29 CFR 1900.1200 – OSHA Hazard Communication Standard) the product listed above is exempt as an article under normal conditions of use. In Canada, this product is considered a manufactured article under the Workplace Hazardous Materials Information System (WHMIS) and is exempt. Under normal conditions of use the product listed in this SDS is not expected to pose a physical hazard or health risk to humans. These products do not contain any form of asbestos materials. The component exposure limits and other information in this document are provided for abnormal or emergency circumstances such as heating (above 250F), burning, cutting, sanding and/or grinding when there is a potential for exposure to these components.

No adverse health effects have been reported in the processing and use of Colback fabrics provided that the workplace is adequately ventilated and normal safety and industrial hygiene practices are followed. Under certain circumstances, potential hazards may result from the processing of this product. If airborne dust is generated in processing, exposure should be maintained below 10 mg/m3 as an eight-hour, time weighted average (TWA). Contact with heated or molten material can cause thermal burns.

Classification of the Substance or Mixture

Classification (GHS-US)

None

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) : None

Signal Word (GHS-US) : None

Hazard Statements (GHS-US) : None

Precautionary Statements (GHS-US) : None

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component

Name	Product Identifier
Polyester	(CAS No) 25038-59-9
Polycaprolactam	(CAS No) 25038-54-4

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: If you feel unwell, seek medical advice . Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.
Inhalation: Treat as nuisance dust hazard. If irritation persists, obtain medical attention.
Skin Contact: Prolonged contact may cause minor irritation. If irritation persists, obtain medical attention. Seek medical attention for thermal burns.
Eye Contact: Treat as nuisance dust hazard. Flush eyes with water for 15 minutes. If irritation persists, obtain medical attention.
Ingestion: No special precautions necessary

Indication of Immediate Medical Attention and Special Treatment Needed

In case of ingestion, the decision of whether or not to induce vomiting should be made by the attending physician. Certain pre-existing conditions may make workers particularly susceptible to the effects of this chemical: asthma, allergies, impaired pulmonary function.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Foam. Carbon dioxide (CO2). Sand. Dry chemical.
Unsuitable Extinguishing Media: Not available.

Hazardous Combustion Products

Black smoke

Advice for Firefighters

Precautionary Measures Fire: Not available

Special Protective Equipment and Precautions for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Specific Methods: Keep product and empty container away from heat and sources of ignition

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: Material is not normally involved in a spill/release scenario.

For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

For Emergency Personnel

Environmental Precautions

No information available.

Methods and Materials for Containment and Cleaning Up

Solid material, sweep up spilled material

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Avoid dust accumulation. Store boxes and rolls in accordance with good warehouse practices.

Conditions for Safe Storage, Including Any Incompatibilities

Store upright to prevent creasing. Keep out of the reach of children.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Chemical Name	ACGIH TLV	OSHA PEL
Total Dust	TWA: 10 mg/m3	TWA: 15 mg/m3 TWA: 5 mg/m3

1. Because the substances listed above are incorporated into the product in a solid stable mixture, exposures exceeding the exposure limits are not likely to occur under normal conditions of use. The component exposure limits are provided for abnormal or emergency circumstances such as heating (above 250F), burning, cutting, sanding and/or grinding when there is a potential for exposure to these components. The limit of exposure is given for reference only.

Personal Protective Equipment

Eye/face Protection

None normally required; however, good safety and industrial hygiene practices should be followed.

Skin Protection

None normally required; however, good safety and industrial hygiene practices should be followed. Protective clothing should be constructed of heavy rubber or similar materials for protection against molten material contact.

Respiratory Protection

If ventilation is not sufficient to control exposures below TLV or PEL, use an appropriate properly fitted NIOSH approved respirator.

Hygiene Measures

If this product is hot-applied with asphalt or an asphalt based adhesive, workers may be exposed to asphalt fumes released from the hot asphalt. Although there is no evidence that the fumes and emissions that occur in these operations emanate from the product during hot application operations, precautions should be taken to minimize worker inhalation and dermal exposures to the fumes emanating from the hot asphalt. During these installations roofing contractors and workers should adhere to the engineering controls, work practices and personal protective equipment (including respirator) recommendations published by the National Institute for Occupational Safety and Health (NIOSH). See DHHS (NIOSH) Publication No. 2003- 107, entitled “Reducing Roofers’ Exposure to Asphalt Fumes”.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Appearance: White, Light Grey, or Black fiber/fabric
Odor: Essentially no odor
Physical State: Solid
pH: Not Available
Flash Point: Not Available
AutoignitionTemperature: Not Available
Melting Point/Range: approx. 220 C
Freezing Point: Not Available
Flammability Limits in Air: Not Available
Explosive Properties: Not Available
Oxidizing Properties: Not Available
Evaporation Rate: Not Available
Vapor Pressure: Not Available

Vapor Density: Not Available
Specific Gravity: Not Available
Water Solubility: Not Available
Volatiles: Not Available

SECTION 10: STABILITY AND REACTIVITY

Stability: This product is stable.
Conditions to Avoid: Open flames and intense heat.
Incompatible Materials: Strong oxidizing agents
Hazardous Decomposition Products: None under normal processing.
Possibility of Hazardous Reactions: None under normal processing.

SECTION 11. TOXICOLOGICAL INFORMATION

This fabric is composed of two solid organic polymers. There are no known physical or health hazards associated with the use of this product.

SECTION 12: ECOLOGICAL INFORMATION

Does not biodegrade. Reclaim for processing if possible.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of contents/container in accordance with local/regional/national/international regulations.

When this product as supplied is to be discarded as waste, it does not meet the definition of a RCRA waste under 40 CFR 261.

Additional Information: Prevent runoff from entering drains, sewers, or waterways.

SECTION 14: TRANSPORT INFORMATION

DOT: Not regulated
TDG: Not regulated
MEX: Not regulated
ICAO: Not regulated
IATA: Not regulated
IMDG/IMO: Not regulated

SECTION 15: REGULATORY INFORMATION

U.S. Federal Regulations
SARA Title III, Section 313: Not listed
NPCA/HMIS Rating: Health-0; Flammability-1; Reactivity:-0

SECTION 16: OTHER INFORMATION

Revision date : 06/16/2020

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.
P.O. Box 743
Matthews, NC 28106

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.

ULTRA-GUARD REINFORCING FABRIC

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 (ASTM D 5035)	MD 42 lbf./in. CD 22 lbf./in.
Tear Strength (ASTM D 5733)	MD 10 lbf./in. CD 12 lbf./in.
Elongation (ASTM D 5035)	MD 10 lb. CD 12 lb.
Weight per Area (ASTM D 3776)	2.0 oz./yd2
Roll Sizes	36" x 600' and 9" x 600'
Weight	30 lb.
Nominal Thickness	12 Mils.
Net Coverage	1,800 sq. ft. aprox.
Packaging	12 rolls/pallet

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, Processed and Manufactured Regionally

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)

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

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®
TegoBase
FasTape SRA W
DrainMax 200
DrainMax 220
DrainMax 380
DrainMax 500
DrainMax 520
DrainMax 650
DrainMax 680
DrainMax GR50
Ultra-Guard GB
TegoBloc Pre-Wrap EX
DrainMax GR100
DrainMax Total Drain
Drain Max Base Drain Universal End Outlet
Drain Max Base Drain Universal Tee Outlet
Drain Max 12" Corner Guard
TegoBloc Pre-Wrap
TegoBloc Boot 3",6",8" &10"
TegoBloc SA
TegoBloc SA-LT
Ultra-Guard Reinforcing Fabric 9" & 36"

... 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

ULTRA-GUARD® HA PRIMER

7 FLUID APPLIED | Membrane Waterproofing

PRODUCT DESCRIPTION

Ultra-Guard® HA Primer is a non-fibered, quick-drying, asphalt-based primer used in many applications with different membrane systems. It is formulated from specially refined asphalt and top-quality penetrating oils. Ultra-Guard® HA Primer penetrates deep into the pores of masonry and concrete to give an elastic bonding surface for GMX membrane systems. It can also be used to prime metal, masonry surfaces, and bare concrete roof decks. Ultra-Guard® HA Primer meets and exceeds ASTM D 41.

PRODUCT ADVANTAGES

Self-Adhered and Hot Fluid-Applied: Ultra-Guard® HA Primer's penetrating oil allows for a long-lasting flexible bond between GMX Hot Fluid-Applied & GMX Self-Adhered Waterproofing Membrane Systems.

Economical: Ultra-Guard® HA Primer is formulated to provide maximum per gallon coverage.

Provides Maximum Surface Adhesion: Ultra-Guard® HA Primer ensures a long-lasting flexible bond between the substrate and the GMX waterproofing membrane.

Dries Quickly, Reduces Total Job Time: Ultra-Guard® HA Primer is formulated to dry tack-free within 30–40 minutes at 77°F (25°C).

APPLICATION

The surface should be clean and dry prior to an application of Ultra-Guard® HA Primer. Any failed previous coating or improperly bonded material must be removed. Ultra-Guard® HA Primer can be applied by spray, brush, or roller. In cold weather, keep the material in a heated area prior to use.

Please refer to the specific membrane application instructions for detailed information about installation and temperature constraints for that specific GMX waterproofing system.

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 free from defects at the time of delivery and may offer a commercial warranty, 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 onsite application assistance. For further information, please contact our Technical Service Dept. at 866-228-7743.

TECHNICAL DATA | PRODUCT SPECIFICATIONS Type: Ultra-Guard® HA Primer	
Viscosity by Zahn Cup #2 (ASTM D 4212)	18-21 sec.
Distillation (ASTM D 402)	
Volume @ 370°F (188°C)	35% min
Volume to 380°F (193°C)	55% max
Penetration of Residue, mm/10	10–30
Softening Point of Residue	170–190°F (77°C-88°C)
Wet Film Thickness @ 1/2-1 gal. (1.9-3.8 l)	8-16 mils (203.2–406.4 microns)
Coverage	150–275 sq. ft./gal (1.84–3.07 m2/l)
Packaging	5-gallon pail (19 l)

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, Processed and Manufactured Regionally

Eco-Facts:	
VOC	350 g/l

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

UltraGuard HA Primer

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: 06/16/2020 Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name:

Product Number:

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)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Flam. Liq. 3	H226
Asp. Tox. 1	H304
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
STOT SE 3	H336
Mutagenicity, 1B	H340
Carc., 1A	H350
Repr. 2	H361
Aquatic Acute 3	H402
Aquatic Chronic 3	H412

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :

GH502 GH507 GH508

Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H226 – Flammable liquid and vapor.
H304 – May be fatal if swallowed and enters airways
H315 – Causes skin irritation.

H319 – Causes serious eye irritation.
H336 – May cause drowsiness or dizziness.
H340 – May cause genetic defects.
H350 – May cause cancer.
H361 – Suspected of damaging fertility or the unborn child.
H402 – Harmful to aquatic life.
H412 – Harmful to aquatic life with long lasting effects.

Precautionary Statements (GHS-US) : P201 – Obtain special instructions before use.
P202 – Do not handle until all safety precautions have been read and understood.
P210 – Keep away from heat/sparks/open flames/hot surfaces. –no smoking.
P233 – Keep container tightly closed.
P240 – Ground/bond container and receiving equipment.
P241 – Use explosion-proof electrical/ventilating/lighting equipment.
P242 – Use only non-sparking tools.
P243 – Take precautionary measures against static discharge.
P264 – Wash hands, forearms, and other exposed areas thoroughly after handling.
P271 – Use only outdoors or in a well-ventilated area.
P273 – Avoid release to the environment.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P312 – Call a doctor, a POISON CENTER if you feel unwell.
P301+P310 – IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+P352 – If on skin: Wash with plenty of water.
P303+P361+P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 – If exposed or concerned: Get medical advice/attention.
P331 – Do NOT induce vomiting.
P337+P313 – If eye irritation persists: Get medical advice/attention.
P370+P378 – In case of fire: use appropriate media to extinguish.
P391 – Collect spillage.
P403+P235 – Store in a well-ventilated place. Keep cool.
P405 – Store locked up.
P501 – Dispose of contents/container according to local, regional, national, and international regulations.

Other Hazards

Other Hazards Not Contributing to the Classification: Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions.

Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Petroleum Asphalt	(CAS No) 8052-42-4	30-60	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 Carc. 2, H351
Petroleum Naphtha, light aromatic	(CAS No) 64742-95-6		Flam. Liq. 1, H224 Skin Irrit. 2, H315 Muta 1B, H340 Carc. 1B, H350 Repr. 2, H361 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
Hydrocarbon Resin	(CAS No) 68478-07-9		Flam. Liq. 1, H224 Skin irrit. 2, H315 Muta. 1B, H340 Carc. 1B, H350 Repr. 2, H361 STOT SE 3, H336
1,3,5-Trimethylbenzene	(CAS No) 108-67-8		Flam. Liq. 3, H226 Acute Tox. 4, H334 Skin Irrit. 2, H315 Eye Irrit. 2, H319
Hydrogen Sulfide	(CAS No) 7783-06-4		Flam. Gas 1, H220 Liquefied gas, H280 Acute Tox. 2 (Inhalation:gas), H330 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Acute 1, H400
1,2,4-trimethylbenzene	(CAS No) 95-63-6		Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation: Vapor), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Acute 2, H401 Aquatic Chronic 2, H411

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: When symptoms occur: go into open air and ventilate suspected area. If exposed or concerned: Get medical advice/attention.

First-aid Measures After Skin Contact: Immediately flush skin with plenty of water. Remove contaminated clothing. Get medical attention immediately. Wash clothing separately before reuse.

First-aid Measures After Eye Contact: Immediately flush eyes with plenty of tempered water (at least 15-20 minutes) lifting upper and lower eye lids occasionally. Get immediate medical attention.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Most Important Symptoms and Effects, Both Acute and Delayed

General: May be fatal if swallowed and enters airways. Causes serious eye irritation. Causes skin irritation.

Symptoms/Injuries After Inhalation: May cause cancer by inhalation.

Symptoms/Injuries After Skin Contact: May cause skin irritation. **Symptoms/Injuries After Eye Contact:** Causes eye irritation.

Symptoms/Injuries After Ingestion: May be fatal if swallowed and enters airways.

Chronic Symptoms: May cause genetic defects. May cause cancer.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media: Do not use water jet. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Flammable liquid and vapor.

Explosion Hazard: May form flammable/explosive vapor-air mixture.

Reactivity: Hazardous reactions will not occur under normal conditions.

Advice for Firefighters

Firefighting Instructions: Exercise caution when fighting any chemical fire.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Carbon dioxide, carbon monoxide, smoke, fumes, unburned hydrocarbons and oxides of sulfur and/or nitrogen. Hydrogen sulfide and other sulfur-containing gases can evolve from this product particularly at elevated temperatures. Corrosive vapors.

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: Use special care to avoid static electric charges. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Avoid breathing vapor, mist, spray. Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice.

For Non-emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE). **Emergency Procedures:** Evacuate unnecessary personnel.

For Emergency Responders

Protective Equipment: Equip cleanup crew with proper protection. Use proper PPE.

Emergency Procedures: Ventilate area. Evacuate unnecessary personnel. Eliminate ignition sources. Stop leak if safe to do so. Prevent entry to sewers and public waters.

Environmental Precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and Material for Containment and Cleaning Up

For Containment: Absorb and/or contain spill with inert material. Do not take up in combustible material such as: saw dust or cellulosic material.

Methods for Cleaning Up: Collect spillage. Clear up spills immediately and dispose of waste safely.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Precautions for Safe Handling: Handle empty containers with care because residual vapors are flammable. Contains Sulfur, may release small amounts of hydrogen sulfide. Hydrogen sulfide is a highly flammable, explosive gas under certain conditions, is a toxic gas, and may be fatal. Gas can accumulate in the headspace of closed containers, use caution when opening sealed containers. Heating the product or containers can cause thermal decomposition of the product and release hydrogen sulfide.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Contaminated work clothing should not be allowed out of the workplace.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, lighting, ventilating equipment.

Storage Conditions: Keep in properly labeled containers. Keep tightly closed in a cool dry well-ventilated place. Use explosion-proof electrical, lighting, and ventilating equipment.

Incompatible Materials: Strong acids, strong bases. Strong oxidizers.

Storage Area: Store locked up. Store in a well-ventilated place.

Specific End Use(s)

Liquid Waterproofing Membrane

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Petroleum Asphalt (8052-42-4)		
USA ACGIH	ACGIH TWA (mg/m3)	0.5 mg/m3
USA NIOSH	NIOSH REL (TWA) (mg/m3)	5 mg/m3
Mexico	OEL TWA (mg/m3)	5 mg/m3
Mexico	OEL STEL (mg/m3)	10 mg/m3
Ontario	OEL TWA (mg/m3)	0.5 mg/m3
Hydrogen Sulfide (7783-06-4)		
USA ACGIH	ACGIH TWA (ppm)	1 ppm
USA ACGIH	ACGIH STEL (ppm)	5 ppm

USA NIOSH	NIOSH REL (ceiling) (mg/m3)	15 mg/m3
USA NIOSH	NIOSH REL (ceiling) (ppm)	10 ppm
USA OSHA	OSHA PEL (ceiling)(ppm)	20 ppm
USA IDLH	US IDLH (ppm)	100 ppm
Mexico	OEL TWA (mg/m3)	14 mg/m3
Mexico	OEL TWA (ppm)	10 ppm
Ontario	OEL TWA (ppm)	10 ppm
Ontario	OEL STEL (ppm)	15 ppm
1,3,5-trimethylbenzene (108-67-8)		
USA NIOSH	NIOSH REL (TWA) (mg/m3)	125 mg/m3
USA NIOSH	NIOSH REL (TWA) (ppm)	25 ppm
1,2,4-trimethylbenzene (95-63-6)		
USA NIOSH	NIOSH REL (TWA) (mg/m3)	125 mg/m3
USA NIOSH	NIOSH REL (TWA) (ppm)	25 ppm

Exposure Controls

Appropriate Engineering Controls: Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Take precautionary measures against static discharges. Ensure all national/local regulations are observed. Gas detectors should be used when flammable gases/vapors may be released.

Personal Protective Equipment: Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.

Hand Protection: Protective gloves.

Eye Protection: Chemical goggles or safety glasses.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: When manufacturing or handling product in large quantities and vapors or mists may be generated, maintain airborne concentrations below recommended limits. Workplace risk assessments should be completed before specifying and implementing respirator usage. NIOSH approved respirators for protection should be used if respirators are found to be necessary.

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties Physical State	:	Liquid
Appearance	:	Black
Odor	:	Petroleum Distillates
Odor Threshold	:	Not available
pH	:	Not available
Relative Evaporation Rate (butyl acetate = 1)	:	Not available
Melting Point	:	Not available
Freezing Point	:	Not available

Boiling Point	:	Not available
Flash Point	:	100°F (41°C)
Auto-ignition Temperature	:	Not available
Decomposition Temperature	:	Not available
Flammability (solid, gas)	:	Not available
Lower Flammable Limit	:	1.0%
Upper Flammable Limit	:	7.0%
Vapor Pressure	:	5 mmHg
Relative Vapor Density at 68°F (20°C)	:	Not available
Relative Density	:	Not available
Specific Gravity	:	0.90
Solubility	:	Insoluble
Partition coefficient: n-octanol/water	:	Not available
Viscosity (Brookfield RV6, 20 RPM, 75°F)	:	Not available
Explosion Data – Sensitivity to Mechanical Impact	:	Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge	:	Not available
Volatile Organic Compounds	:	345 g/L
Volatiles	:	35-40%

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.
Chemical Stability: Flammable liquid and vapor. Product is stable under recommended handling and storage conditions (see Section 7).
Possibility of Hazardous Reactions: Hazardous polymerization will not occur.
Conditions to Avoid: Direct sunlight. Extremely high or low temperatures. Ignition sources. Incompatible materials.
Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.
Hazardous Decomposition Products: Carbon oxides (CO, CO_2). May release flammable gases. Contains a small amount of hydrogen sulfide. Hydrogen sulfide is a fatal, and highly flammable gas with a rotten egg odor that quickly causes odor fatigue. Heating of this product and storage under elevated temperatures or over long periods of time may release higher amounts of hydrogen sulfide. Hydrogen sulfide is also an asphyxiate.

SECTION 11. TOXICOLOGICAL INFORMATION

Information On Toxicological Effects - Product

Acute Toxicity: Not classified
LD50 and LC50 Data: Not available
Skin Corrosion/Irritation: Not classified
Serious Eye Damage: Causes serious eye irritation.
Respiratory or Skin Sensitization: Not classified.
Germ Cell Mutagenicity: May cause genetic defects.
Teratogenicity: Not available
Carcinogenicity: May cause cancer (inhalation).
Specific Target Organ Toxicity (Repeated Exposure): May cause damage to organs through prolonged or repeated exposure.

Reproductive Toxicity: Not classified.
Aspiration Hazard: May be fatal if swallowed and enters airways.
Specific Target Organ Toxicity (Single Exposure): Not classified
Symptoms/Injuries After Inhalation: May cause respiratory irritation.
Symptoms/Injuries After Skin Contact: May cause skin irritation.
Symptoms/Injuries After Eye Contact: Causes serious eye irritation.
Symptoms/Injuries After Ingestion: May be fatal if swallowed and enters airways.
Chronic Symptoms: May cause cancer. May cause genetic damage.

Information on Toxicological Effects – Ingredient(s)

LD50 and LC50 Data Petroleum Asphalt (8052-42-4)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 2000 mg/kg
Solvent naphtha, petroleum, light aromatic (64742-95-6)	
LD50 Dermal Rat	>2,000 mg/kg
LC50 Inhalation Rabbit	3,400 ppm/4 h
Benzene, 1,2,4-trimethyl- (95-63-6)	
LD50 Oral Rat	6000 mg/kg
LD50 Dermal Rabbit	> 3160 mg/kg
LC50 Inhalation Rat	18 g/m3 (Exposure time: 4 h)
1,3,5-trimethylbenzene (108-67-8)	
LC50 Inhalation Rat	24 g/m3 (Exposure time: 4 h)
Hydrogen sulfide (7783-06-4)	
LC50 Inhalation Rat	0.99 mg/L (Exposure time: 1 h)
LC50 Inhalation Rat	444 ppm/4 h
Carcinogenicity Data:	
Petroleum Asphalt (8052-42-4)	
IARC Group	2B
National Toxicity Program (NTP) Status	Twelfth Report – Items under consideration

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology – General: Very toxic to aquatic life with long lasting effects.

Mobility in Soil

No additional information available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of contents/container in accordance with local/regional/national/international regulations.

When this product as supplied is to be discarded as waste, it does not meet the definition of a RCRA waste under 40 CFR 261.

Additional Information: Prevent runoff from entering drains, sewers, or waterways.

SECTION 14: TRANSPORT INFORMATION

In Accordance with DOT

Proper Shipping Name : Non-Regulated , non-bulk

In Accordance with IMDG

Proper Shipping Name	:	Tars, liquid
Hazard Class	:	3
Identification Number	:	UN1999
Packing Group	:	III
EmS No.	:	F-E, S-E

In Accordance with IATA

Proper Shipping Name	:	Tars, liquid
Hazard Class	:	3
Identification Number	:	UN1999
Packing Group	:	III
ERG Code	:	130

In Accordance with TDG

Proper Shipping Name	:	Non-Regulated , non-bulk

SECTION 15: REGULATORY INFORMATION

US Federal Regulations SARA Section 311/312 Hazard Classes

Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Petroleum Asphalt (8052-42-4)
Listed on the United States TSCA (Toxic Substances Control Act) Inventory

Solvent naphtha, petroleum, light aromatic (64742-95-6)
Listed on the United States TSCA (Toxic Substances Control Act) Inventory

Hydrogen Sulfide (7783-06-4)
Listed on the United States TSCA (Toxic Substances Control Act) Inventory
Listed on the United States SARA Section 302
Listed on the United States SARA Section 313
SARA Section 302 Threshold Planning Quantity (TPQ) 500
SARA Section 312 – Emission Reporting 1.0%

1,3,5-trimethylbenzene (108-67-8)
Listed on the United States TSCA (Toxic Substances Control Act) Inventory
EPA TSCA Regulatory Flag T – T – indicates a substance that is the subject of a Section 4 test rule under TSCA.

Hydrocarbon Resin (68478-07-9)
Listed on the United States TSCA (Toxic Substances Control Act) Inventory

1,2,4-trimethylbenzene (95-63-6)
Listed on the United States TSCA (Toxic Substances Control Act) Inventory
Listed on United States SARA Section 313
SARA Section 313 – Emission Reporting 1.0%

US State Regulations Petroleum Asphalt (8052-42-4)

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

Hydrogen sulfide (7783-06-4)

RTK – U.S. – Massachusetts – Right To Know List
RTK – U.S. – New Jersey – Right To Know Hazardous Substance List
RTK – U.S. – Pennsylvania – Right To Know Environmental Hazard List
RTK – U.S. – Pennsylvania – RTK (Right To Know) List

Stoddard Solvent (8052-41-3)

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

1,3,5-trimethylbenzene (108-67-8)

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

1,2,4-trimethylbenzene (95-63-6)

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. – Pennsylvania – RTK (Right To Know) – Environmental Hazard List

Canadian Regulations Ultra-Shield HA-Primer

WHMIS Classification Class B Division 3 – Combustible liquid
Class D Division 2 subdivision A – Very toxic material causing other effects.
Class D Division 2 Subdivision B – Toxic material causing other toxic effects

Petroleum Asphalt (8052-42-4)

Listed on the Canadian DSL (Domestic Substances List) Inventory

Hydrogen Sulfide (7783-06-4)

Listed on the Canadian DSL (Domestic Substances List) Inventory
Listed on the Canadian IDL (Ingredient Disclosure List)
WHMIS Classification Class A – Compressed Gas
Class B Division 3 – Combustible Liquid
Class D Division 1 Subdivision A – Very toxic material causing immediate and serious toxic effects
Class D Division 2 Subdivision B – Toxic material causing other toxic effects

1,3,5-trimethylbenzene (108-67-8)

Listed on the Canadian DSL (Domestic Substances List) Inventory
Listed on the Canadian IDL (Ingredient Disclosure List)
IDL Concentration 0.1%
WHMIS Classification Class B Division 3 – Combustible Liquid

Solvent naphtha, petroleum, light aromatic (64742-95-6)

Listed on the Canadian DSL (Domestic Substances List) Inventory

WHMIS Classification Class B Division 3 – Combustible Liquid
Class D Division 2 Subdivision B – Toxic material causing other toxic effects

Hydrocarbon Resin (68478-07-9)
Listed on the Canadian DSL (Domestic Substances List) Inventory

1,2,4-trimethylbenzene (95-63-6)
Listed on the Canadian DSL (Domestic Substance List) Inventory
IDL Concentration 0.1%
WHMIS Classification Class B Division 3 – Combustible Liquid
Class D Division 2 Subdivision A – Very toxic material causing other toxic effects.
Class D Division 2 Subdivision B – Toxic material causing other toxic effects.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION

Revision date : 06/16/2020

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.
P.O. Box 743
Matthews, NC 28106

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.

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.

TECHNICAL DATA | PRODUCT SPECIFICATIONS
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 lbs
Reinforcement	Fiberglass fibers
Softening Point (ASTM D-36)	N/A
Cold Flexibility (ASTM D-5147)	Pass
Puncture Strength (ASTM D-6505)	365 N (82.1bf.)
Resistance to Decay (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
MR Credit 5.2:	Regional Materials: 20% 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).

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

Safety Data Sheet

Article

Article No.: 050109 **Version:** 2023.03

Dear Customer:

According to Federal Regulations, GMX waterproofing products commercially available under the following names:

Bilar®	Drain Max® GR 100
CS Insulation	Drain Max® Base Drain
FasTape SRA W	Drain Max® Base Drain Universal End Outlet
Drain Max® 200, P200	Drain Max® Base Drain Universal Tee Outlet
Drain Max® 220	Drain Max® 12” Corner Guard
Drain Max® 380	Drain Max® Strip Drain
Drain Max® 500, P500	Drain Max® Total Drain
Drain Max® 520, P520	Perimate
Drain Max® 650	Ultra-Dry Board
Drain Max® Strip Drain	Ultra-Shield Self Stick Membrane
Drain Max® R-70 Sheet core	Ultra-Shield Self Stick Sealing Tape
Drain Max® R-74/R-76/R-78 Sheet drain	X-IE 6-50 PH52
Drain Max® GR 50	TegoBase

... 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 a 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.

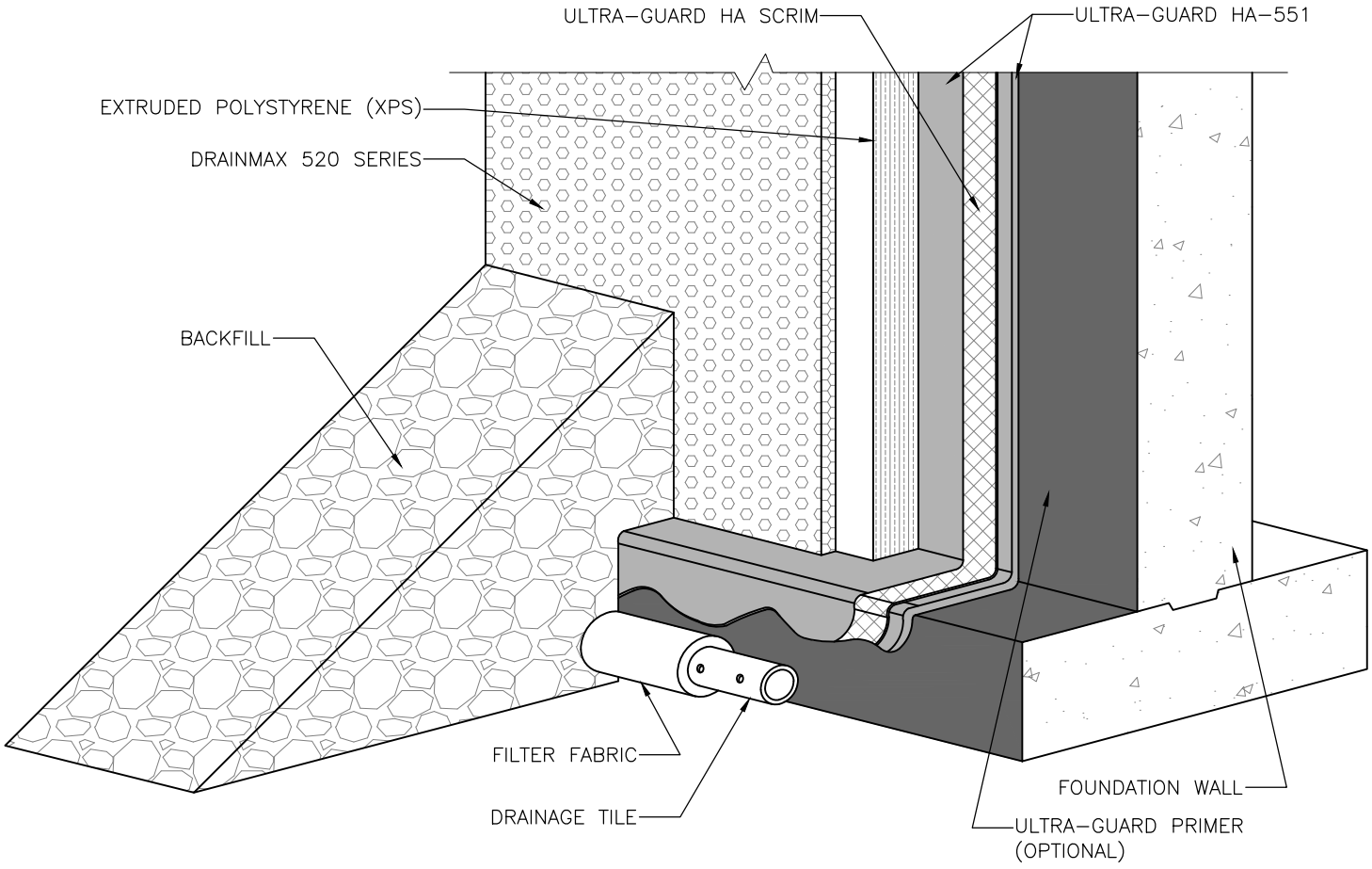
If you have any questions regarding the above, please call (704) 334-8222.

Sincerely,

GMX, INC.

Manufacturer Address
2034-C Van Buren Ave.
Indian Trail, NC 28079

FILENAME: HA551_XPS_Option1.dwg 5-15-23



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

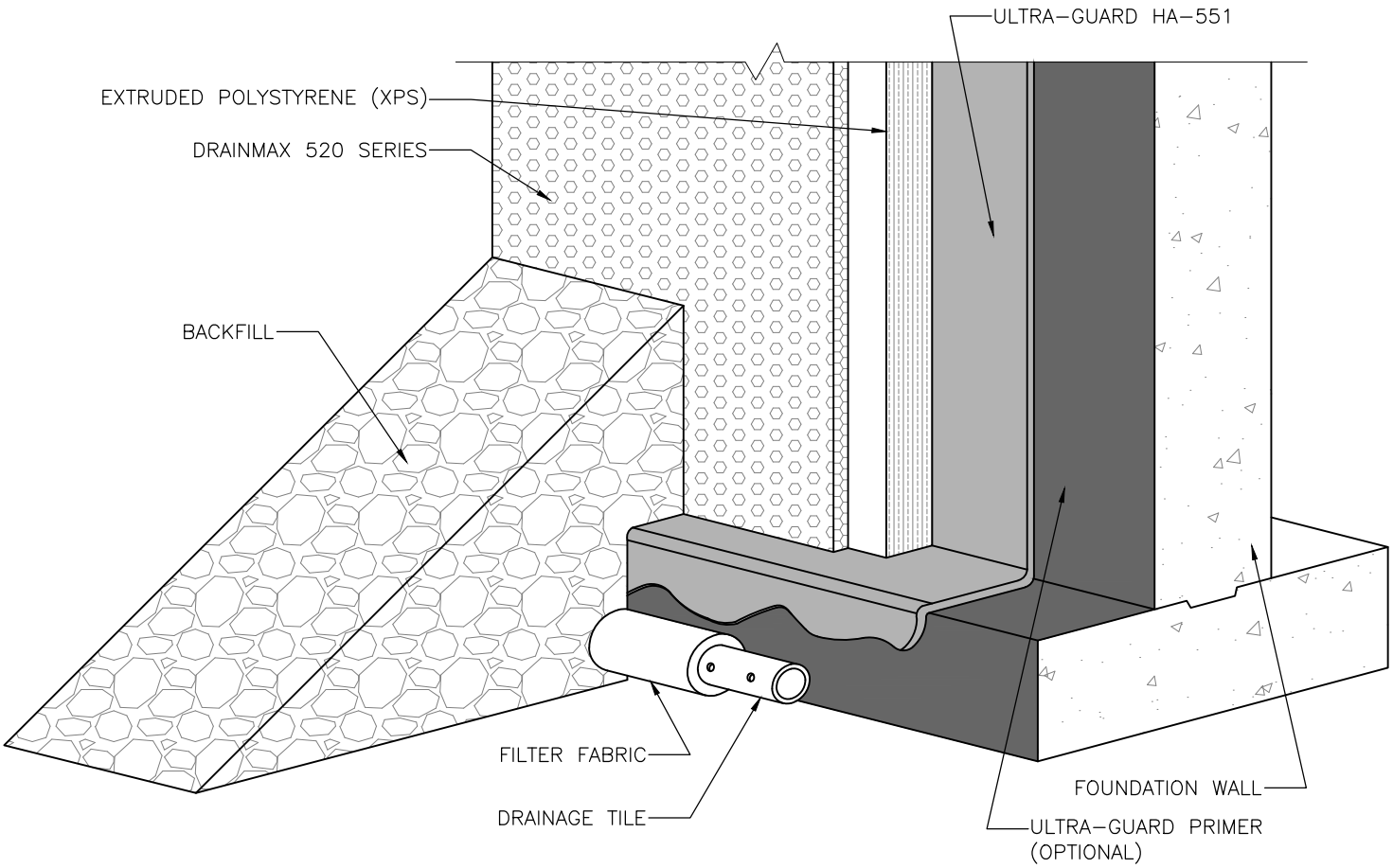
ULTRA GUARD HA-551 WATERPROOFING SYSTEM

XPS OPTION 1

GMX

DETAIL ID:	HA-XPS1
REPRESENTATIVE:	
DATE:	SHT: OF

FILENAME: HA551_XPS_Option2.dwg 5-15-23



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

ULTRA GUARD HA-551 WATERPROOFING SYSTEM

XPS OPTION 2

GMX

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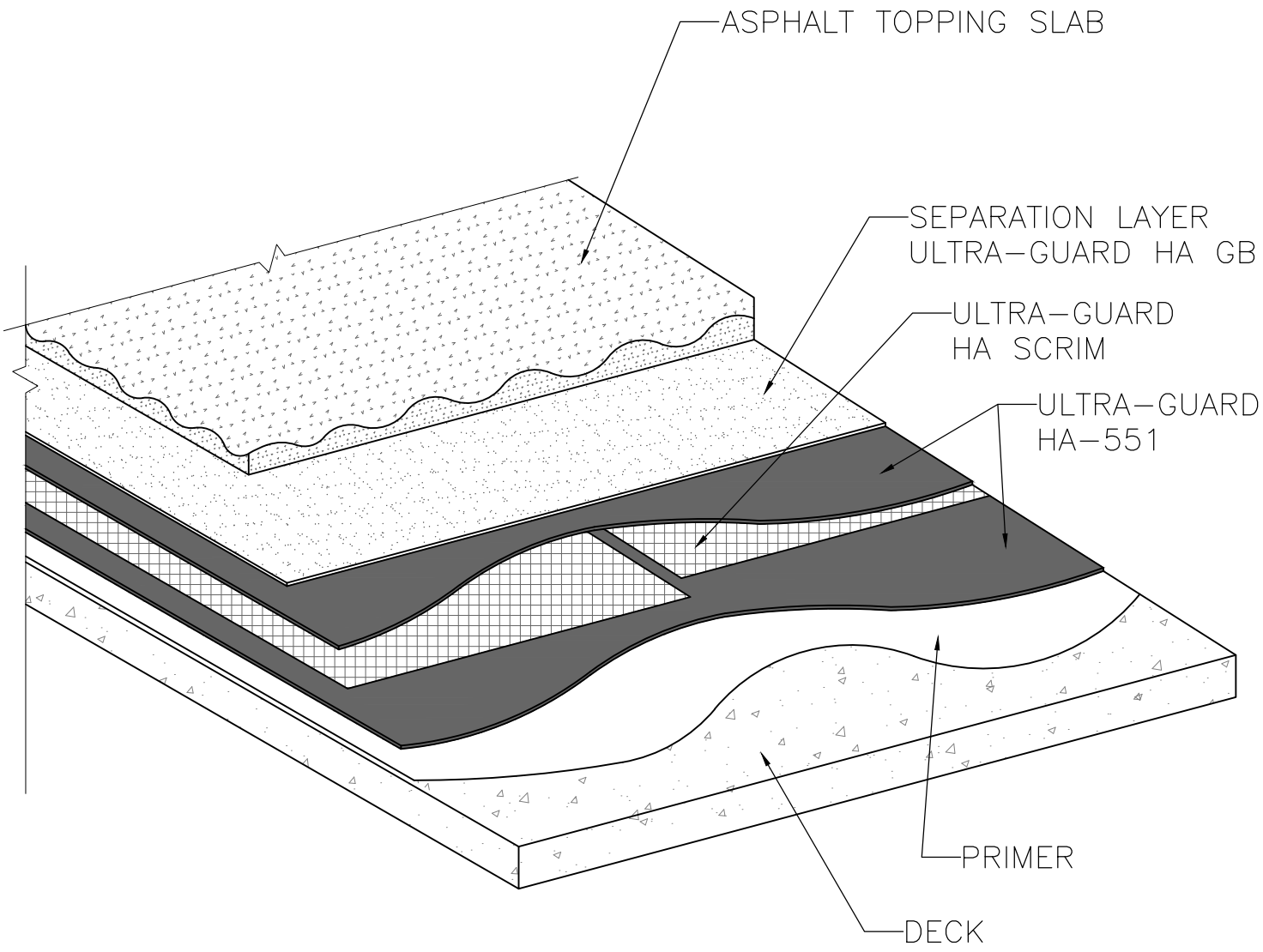
REPRESENTATIVE:	
DATE:	SHT: OF

FILENAME: HA551-ASPHALT TOPPING SLAB.dwg 5-15-23



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

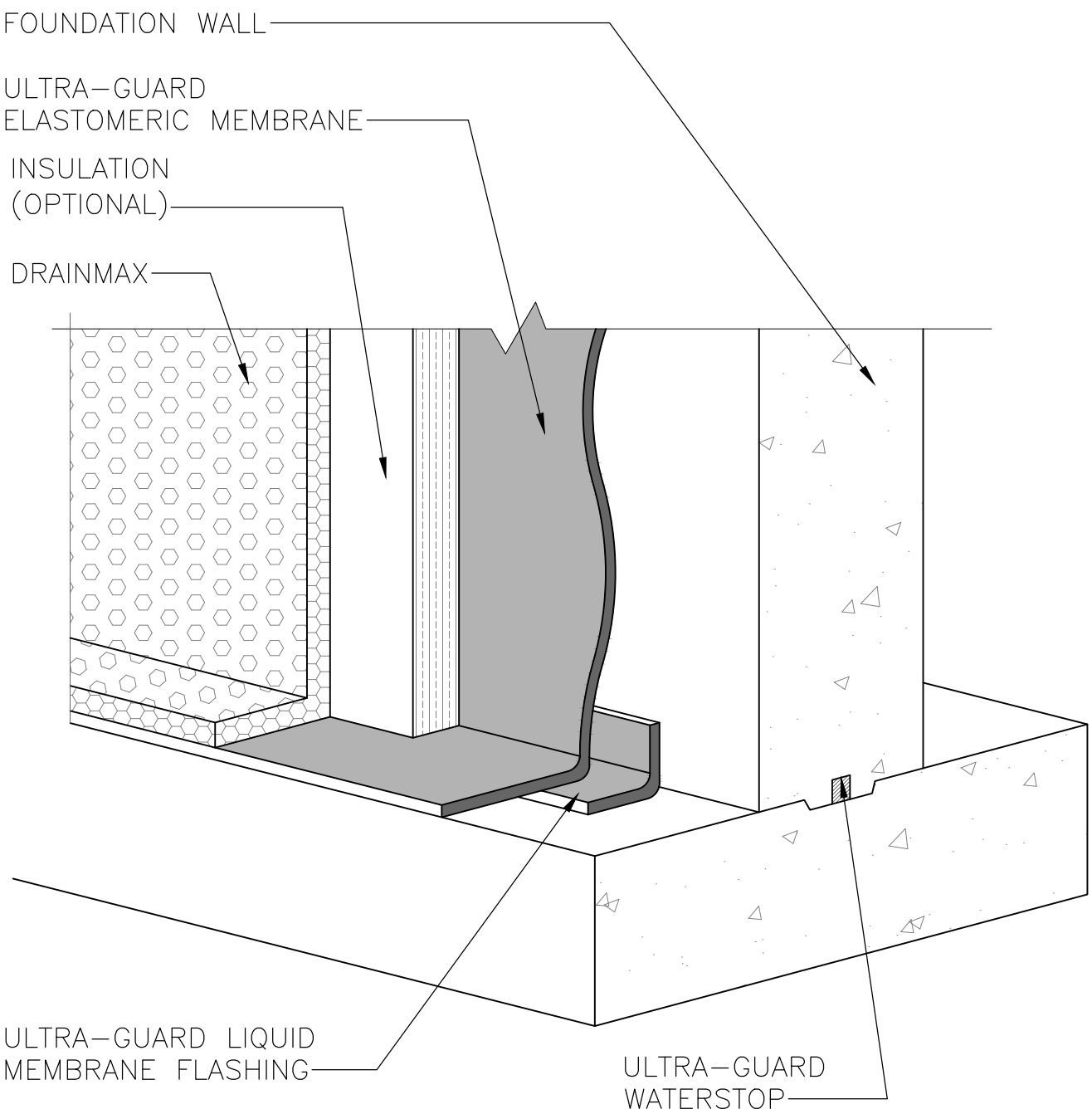
ULTRA GUARD HA-551 WATERPROOFING SYSTEM

ASPHALT TOPPING SLAB

GMX

DETAIL ID:	HA-01g
REPRESENTATIVE:	
DATE:	SHT: OF

FILENAME: HA551-BELOW GRADE VERTICAL ASSEMBLY (W_OPTIONAL EPS INSULATION).dwg 5-15-23



BELOW GRADE ASSEMBLY

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

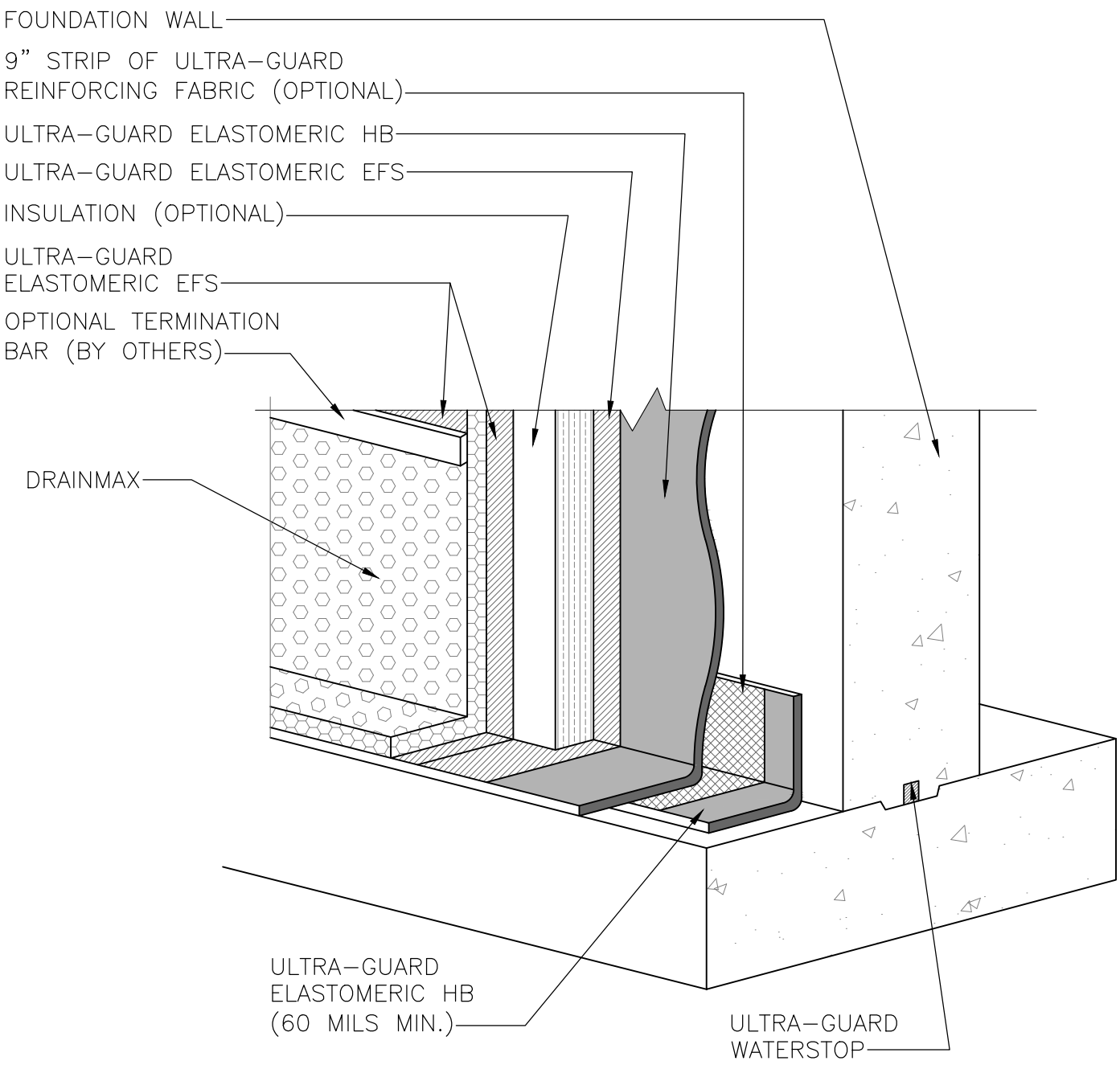
ULTRA GUARD HA-551 WATERPROOFING SYSTEM

BELOW GRADE VERTICAL ASSEMBLY (W/OPTIONAL EPS INSULATION)

GMX

DETAIL ID:	HA-23
REPRESENTATIVE:	
DATE:	SHT: OF

NOTE:
ULTRA–GUARD EFS IS TO BE INSTALLED AFTER THE ULTRA–GUARD ELASTOMERIC HB HAS CURED FOR A MINIMUM OF 24 HOURS WHEN TEMPERATURES ARE CONSTANTLY ABOVE 40 DEGREES F.



BELOW GRADE ASSEMBLY

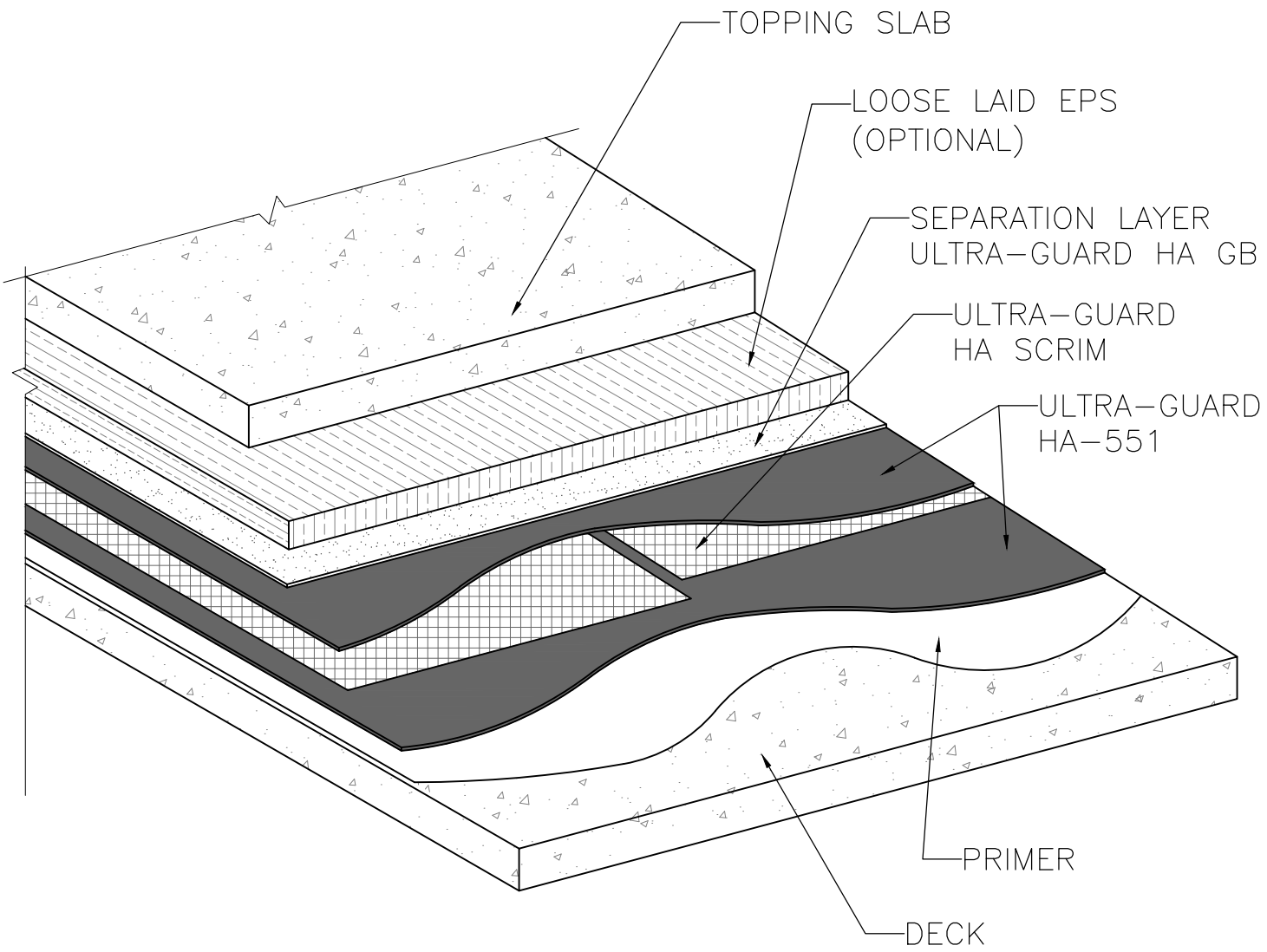
DRAWINGS ON 8½"x11 TITLE BLOCKS ARE NOT TO SCALE.

ULTRA GUARD HA-551 WATERPROOFING SYSTEM

BELOW GRADE VERTICAL ASSEMBLY

GMX

DETAIL ID:	HA-22
REPRESENTATIVE:	
DATE:	SHT: OF



NOTES:

1. SYSTEM DETAIL SHOWING A REINFORCED 2 PLY ULTRA–GUARD HA–551 HOT APPLIED RUBBERIZED ASPHALT WATERPROOFING SYSTEM COVERED BY A LANDSCAPING LAYER. FOR LANDSCAPING SYSTEMS WITH AGGRESSIVE ROOT STRUCTURES, CONSULT GMX FOR ADDITIONAL REQUIREMENTS.

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

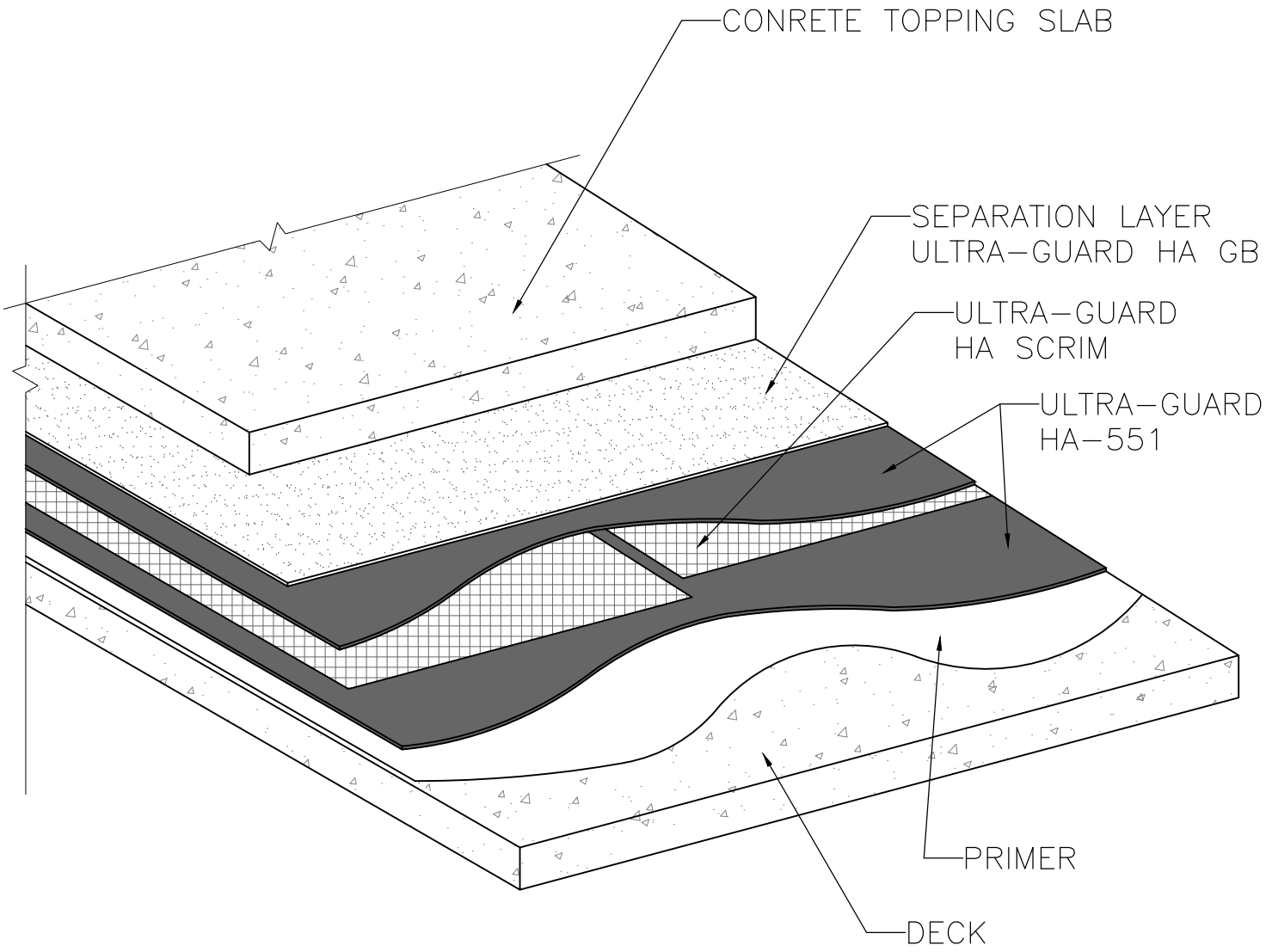
ULTRA GUARD HA-551 WATERPROOFING SYSTEM

CONCRETE TOPPING SLAB PLAZA DECK (W/OPTIONAL EPS INSULATION)

GMX

DETAIL ID:	HA-01b
REPRESENTATIVE:	
DATE:	SHT: OF

FILENAME: HA551-CONCRETE TOPPING SLAB.dwg 5-15-23



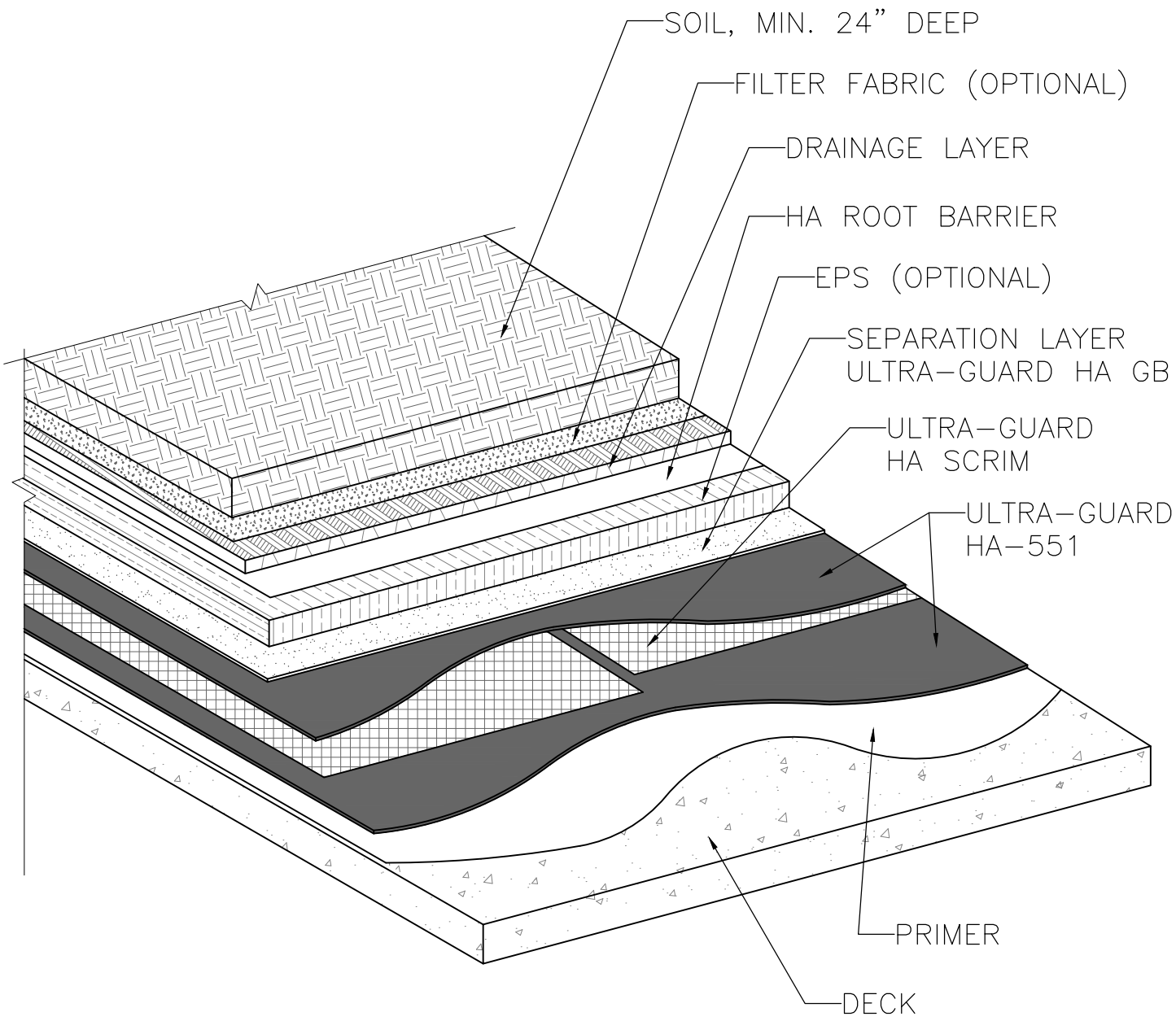
DRAWINGS ON 8½"x11 TITLE BLOCKS ARE NOT TO SCALE.

ULTRA GUARD HA-551 WATERPROOFING SYSTEM

CONCRETE TOPPING SLAB

GMX

DETAIL ID:	HA-01f
REPRESENTATIVE:	
DATE:	SHT: OF



NOTES:

1. SYSTEM DETAIL SHOWING A REINFORCED 2 PLY ULTRA-GUARD HA-551 HOT APPLIED RUBBERIZED ASPHALT WATERPROOFING SYSTEM COVERED BY A LANDSCAPING LAYER. FOR LANDSCAPING SYSTEMS WITH AGGRESSIVE ROOT STRUCTURES, CONSULT GMX FOR ADDITIONAL REQUIREMENTS.

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

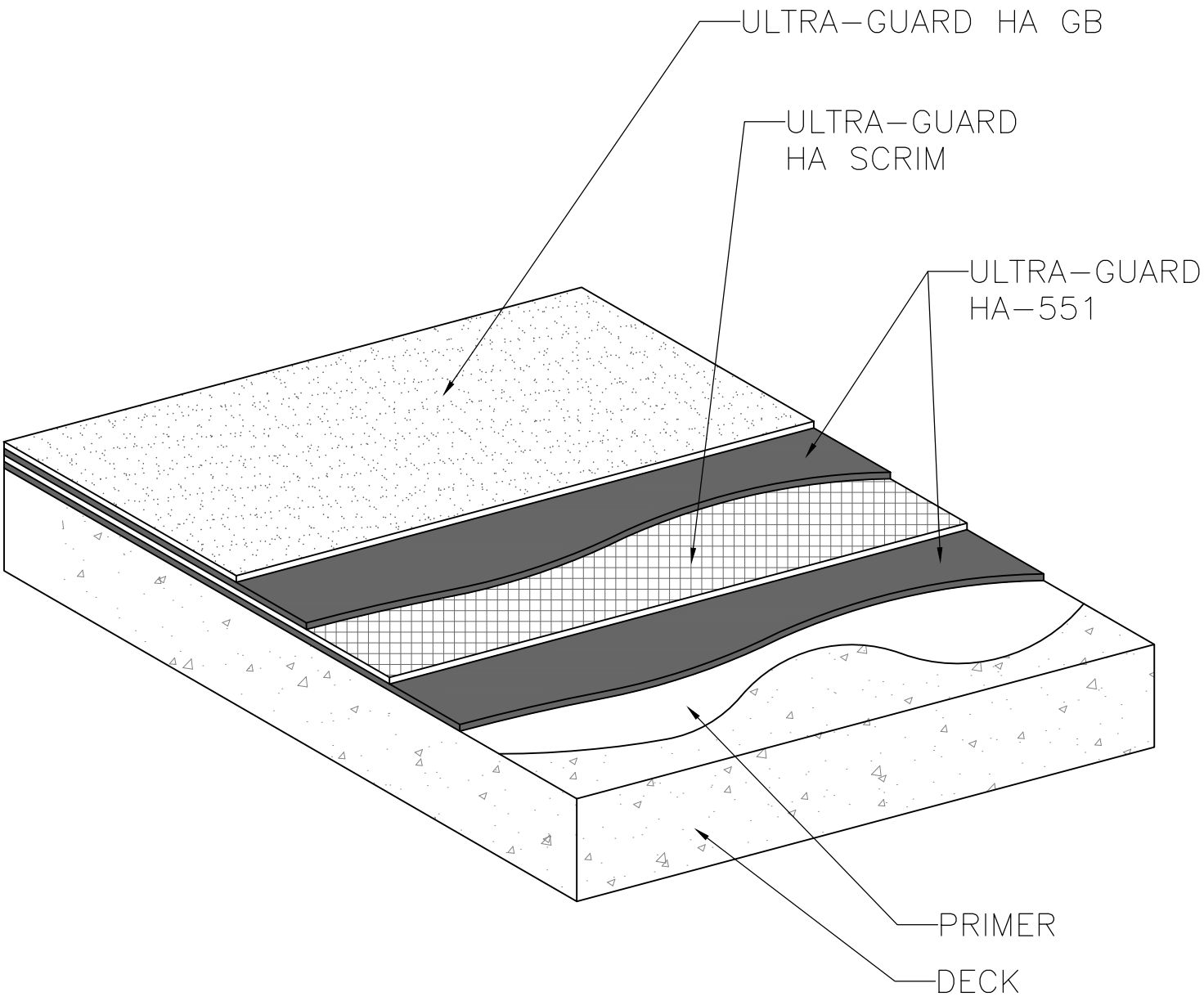
ULTRA GUARD HA-551 WATERPROOFING SYSTEM

GREEN VEGETATED ROOF (W/OPTIONAL EPS INSULATION)

GMX

DETAIL ID:	HA-014a
REPRESENTATIVE:	
DATE:	SHT: OF

FILENAME: HA551-Horizontal Deck.dwg 5-15-23



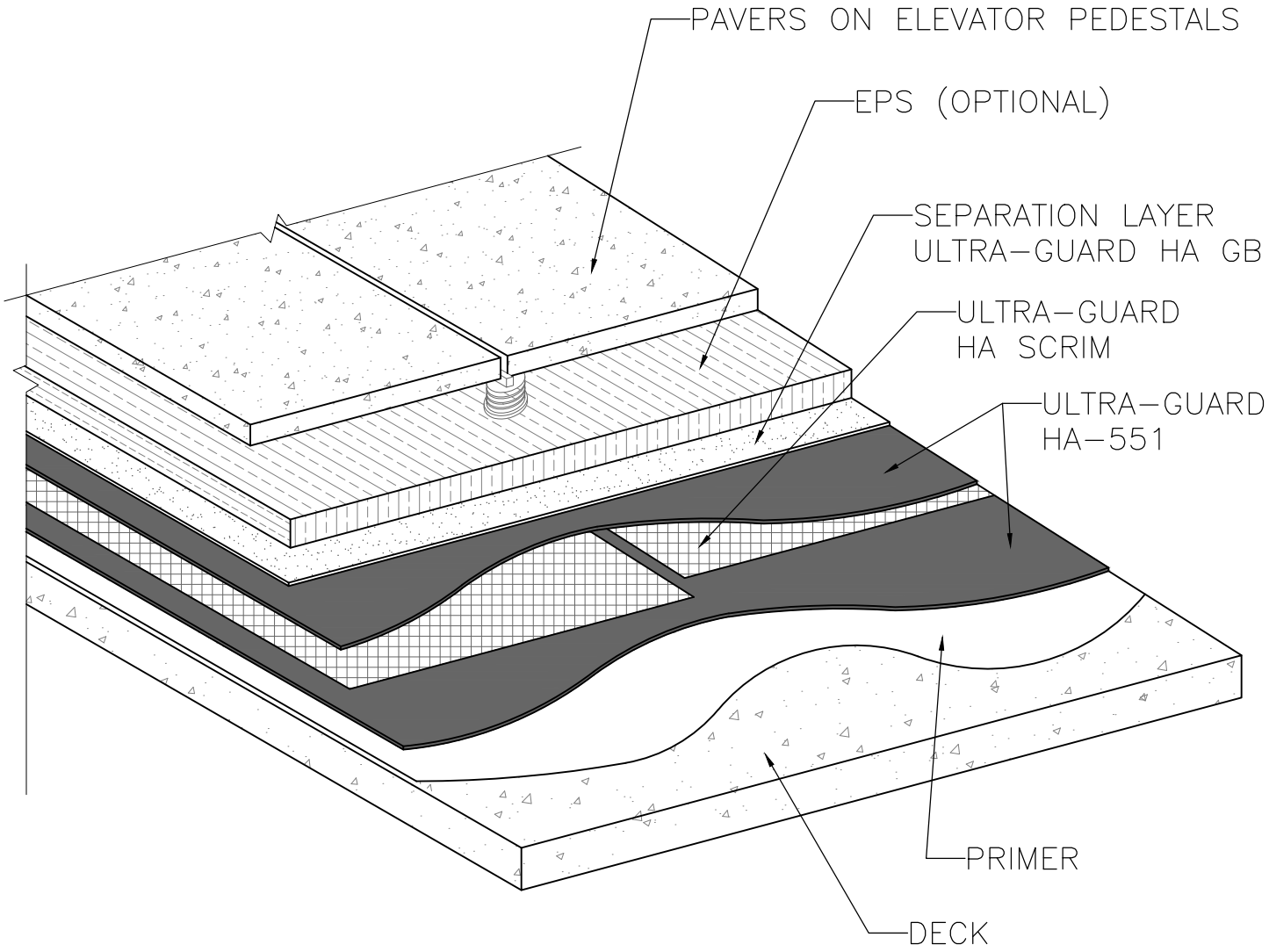
DRAWINGS ON 8½"x11 TITLE BLOCKS ARE NOT TO SCALE.

ULTRA GUARD HA-551 WATERPROOFING SYSTEM

HORIZONTAL APPLICATION

GMX

DETAIL ID:	HA-01a
REPRESENTATIVE:	
DATE:	SHT: OF



NOTES:

1. SYSTEM DETAIL SHOWING A REINFORCED 2 PLY ULTRA-GUARD HA-551 HOT APPLIED RUBBERIZED ASPHALT WATERPROOFING SYSTEM INCORPORATING A DRAINAGE TYPE POLYSTYRENE INSULATION BOARD (OPTIONAL) AND PAVERS.

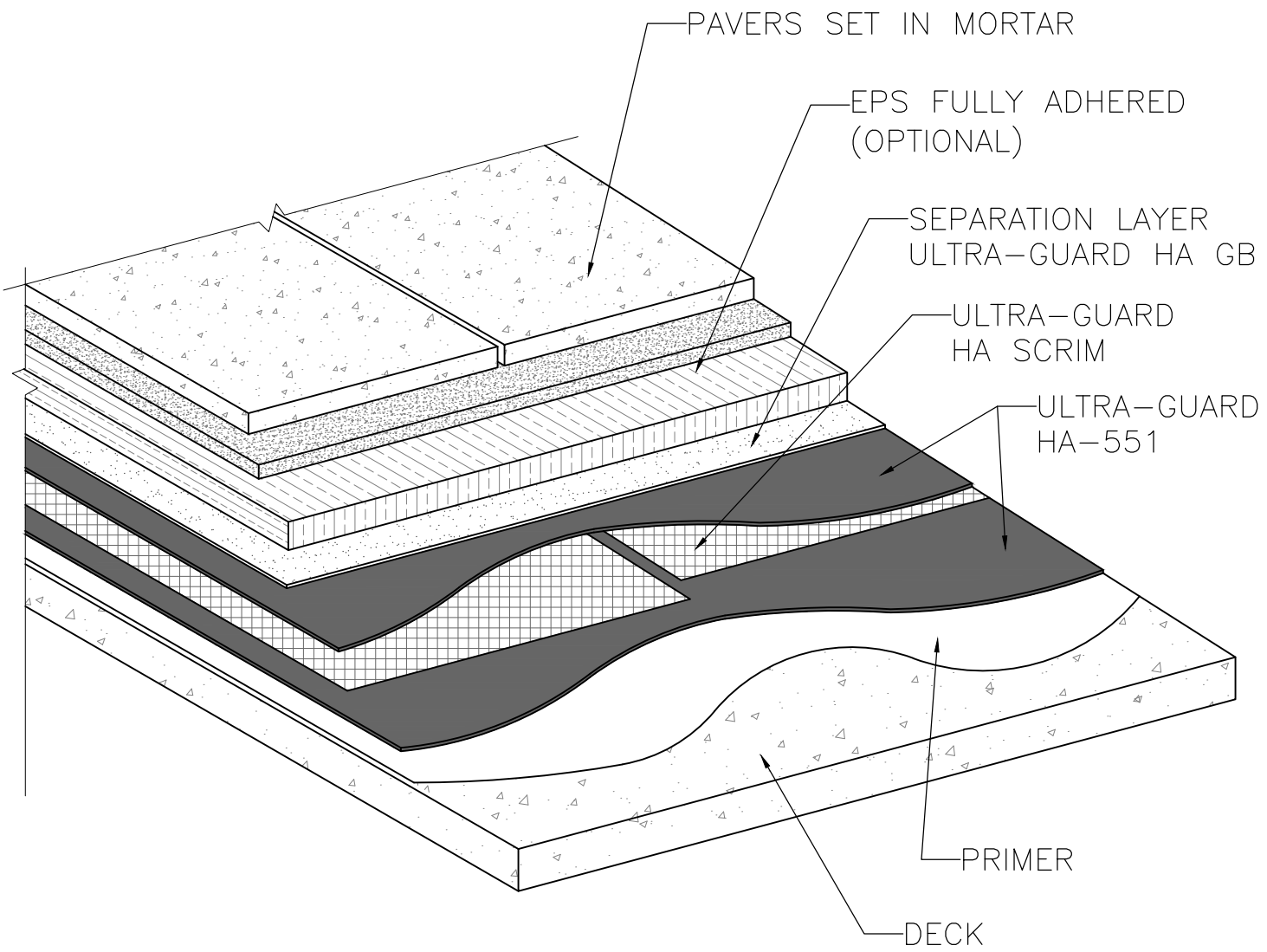
DRAWINGS ON 8½"x11 TITLE BLOCKS ARE NOT TO SCALE.

ULTRA GUARD HA-551 WATERPROOFING SYSTEM

PAVER AND PEDESTAL PLAZA DECK (W/OPTIONAL EPS INSULATION)

GMX

DETAIL ID:	HA-01c
REPRESENTATIVE:	
DATE:	SHT: OF



NOTES:

1. SYSTEM DETAIL SHOWING A REINFORCED 2 PLY ULTRA–GUARD HA–551 HOT APPLIED RUBBERIZED ASPHALT WATERPROOFING SYSTEM INCORPORATING A DRAINAGE TYPE POLYSTYRENE INSULATION BOARD (OPTIONAL) AND PAVERS.

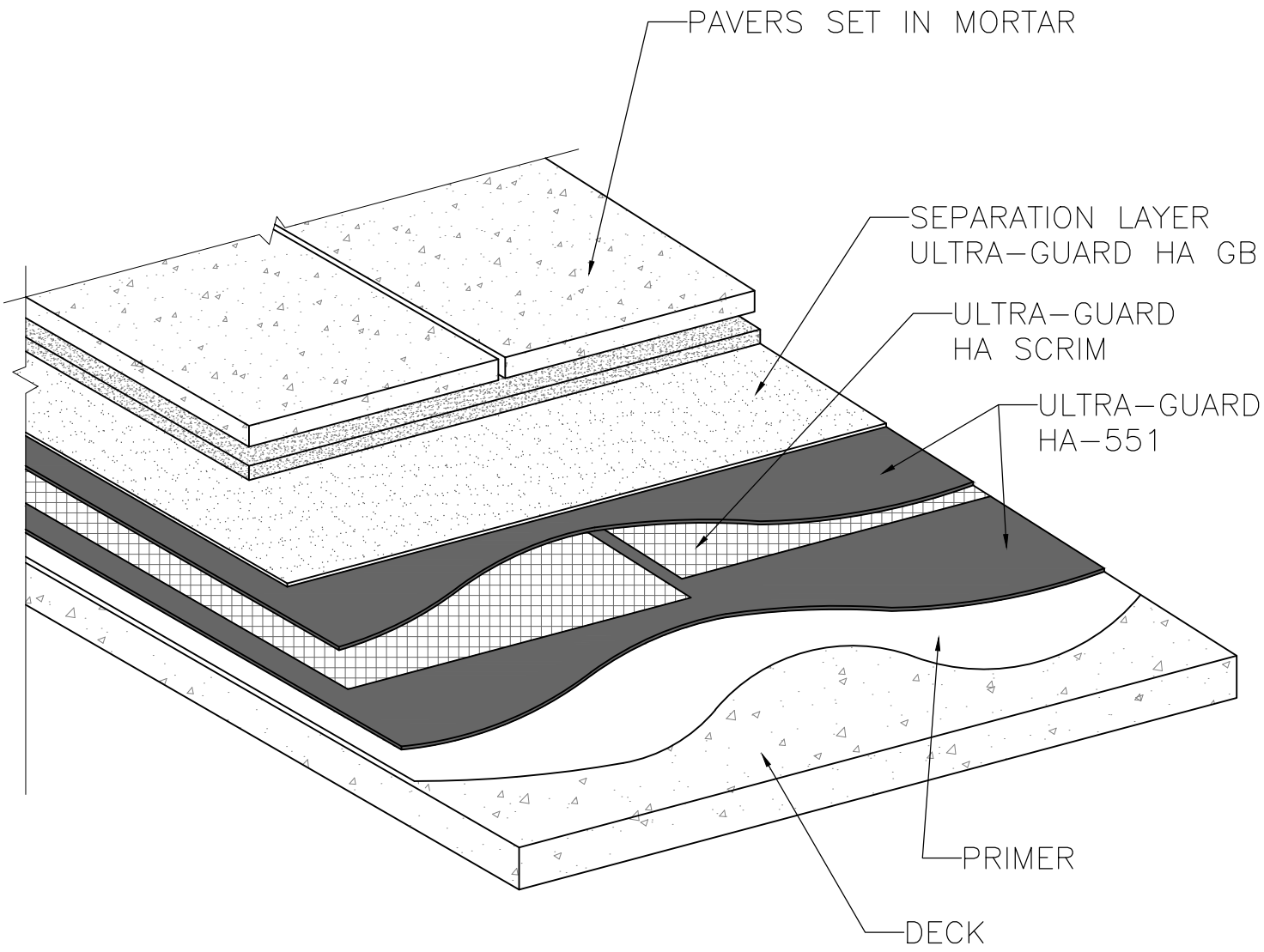
DRAWINGS ON 8½"x11 TITLE BLOCKS ARE NOT TO SCALE.

ULTRA GUARD HA-551 WATERPROOFING SYSTEM

PAVER SET IN MORTAR (W/OPTIONAL EPS INSULATION)

GMX

DETAIL ID:	HA-01e
REPRESENTATIVE:	
DATE:	SHT: OF



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

ULTRA GUARD HA-551 WATERPROOFING SYSTEM

PAVER SET IN MORTAR

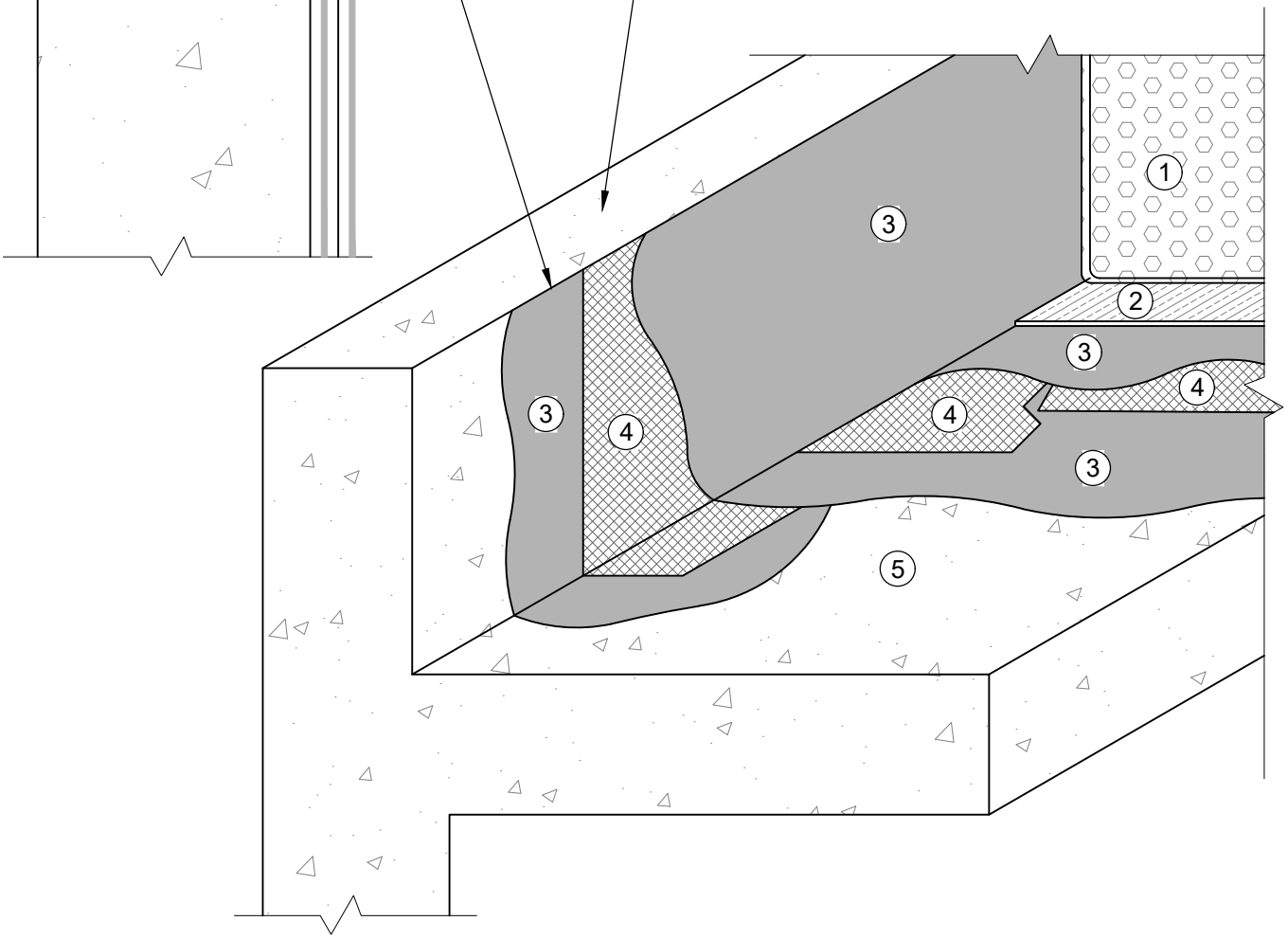
GMX

DETAIL ID:	HA-01d
REPRESENTATIVE:	
DATE:	SHT: OF

IF TERMINATED AT TOP OF PLANTER, INSTALL TERMINATION BAR WITH BEAD OF ULTRA-GUARD EFS SEALANT

1. DRAIN-MAX 650
2. ULTRA-GUARD GB
3. ULTRA-GUARD ELASTOMERIC HB
4. ULTRA-GUARD REINFORCING FABRIC
5. STRUCTURAL CONCRETE DECK

TOP OF PLANTER CONDITIONS VARY BY PROJECT. REFER TO PROJECT CONSTRUCTION DOCUMENTS OR CONTACT GMX FOR RECOMMENDATIONS REGARDING TOP OF PLANTER WALL.



NOTES:

1. SYSTEM DETAIL DEPICTS 2 PLY POLYESTER REINFORCED ULTRA-GUARD ELASTOMERIC HB MEMBRANE.
2. REFER TO SPECIFICATION AND TECHNICAL DATA SHEETS AT GMXCO.COM FOR ADDITIONAL INFORMATION.

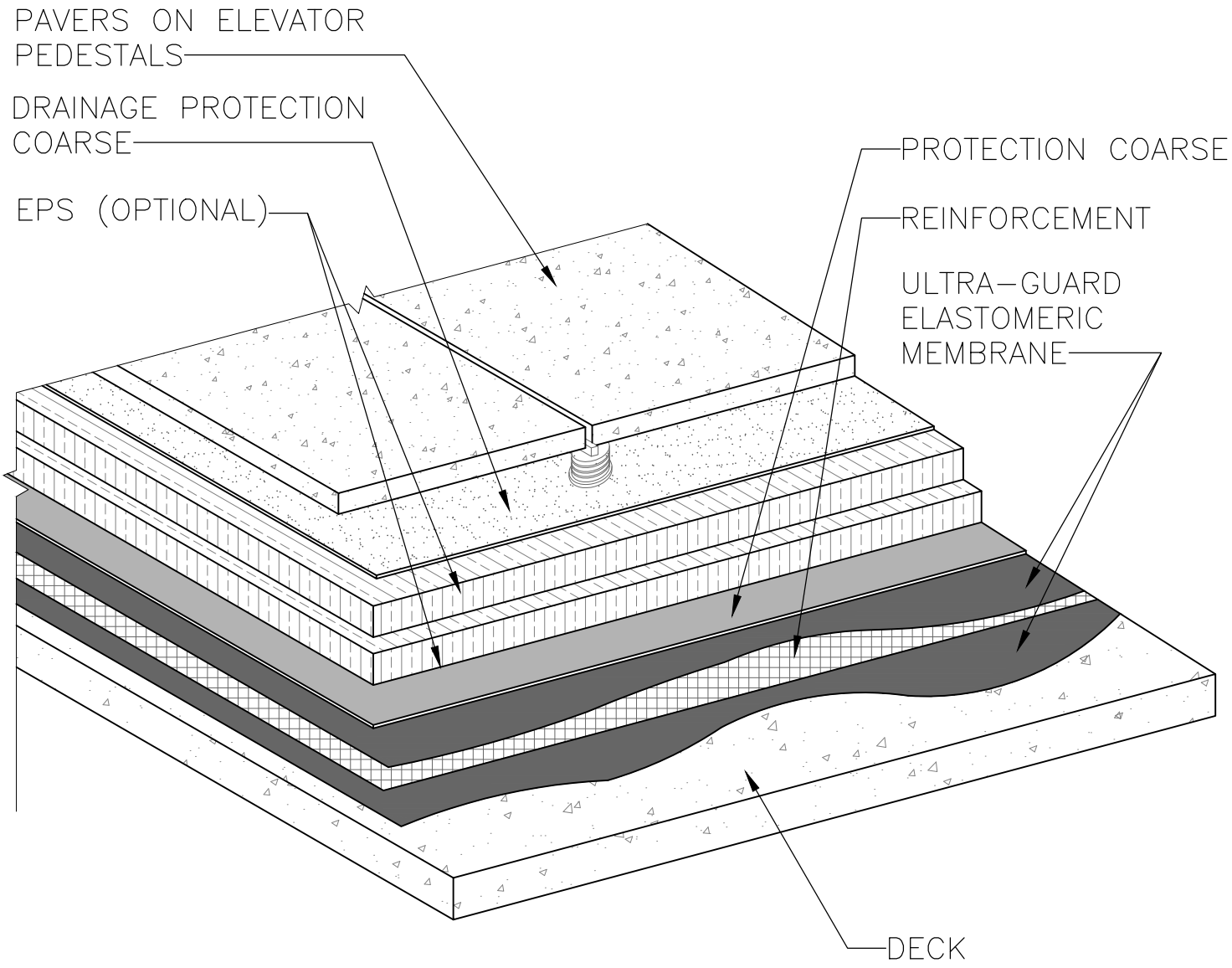
DRAWINGS ON 8½"x11 TITLE BLOCKS ARE NOT TO SCALE.

ULTRA GUARD HA-551 WATERPROOFING SYSTEM

PLANTER DETAIL

GMX

DETAIL ID:	HA-20
REPRESENTATIVE:	
DATE:	SHT: OF



PLAZA DECK ASSEMBLY

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

ULTRA GUARD HA-551 WATERPROOFING SYSTEM

PLAZA DECK

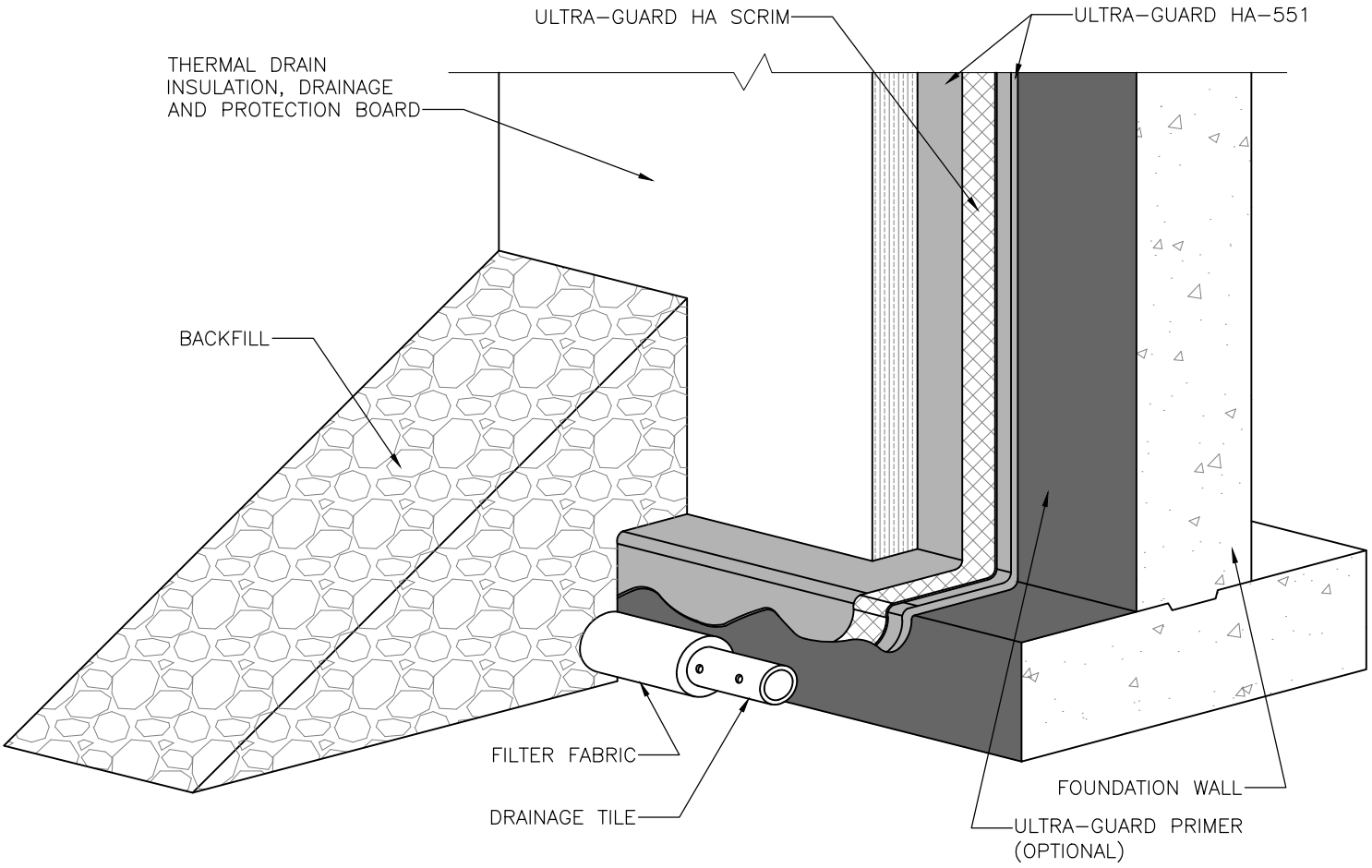
GMX

DETAIL ID: HA-21

REPRESENTATIVE:

DATE: SHT: OF

FILENAME: HA551-Vertical Option 1.dwg 5-15-23



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

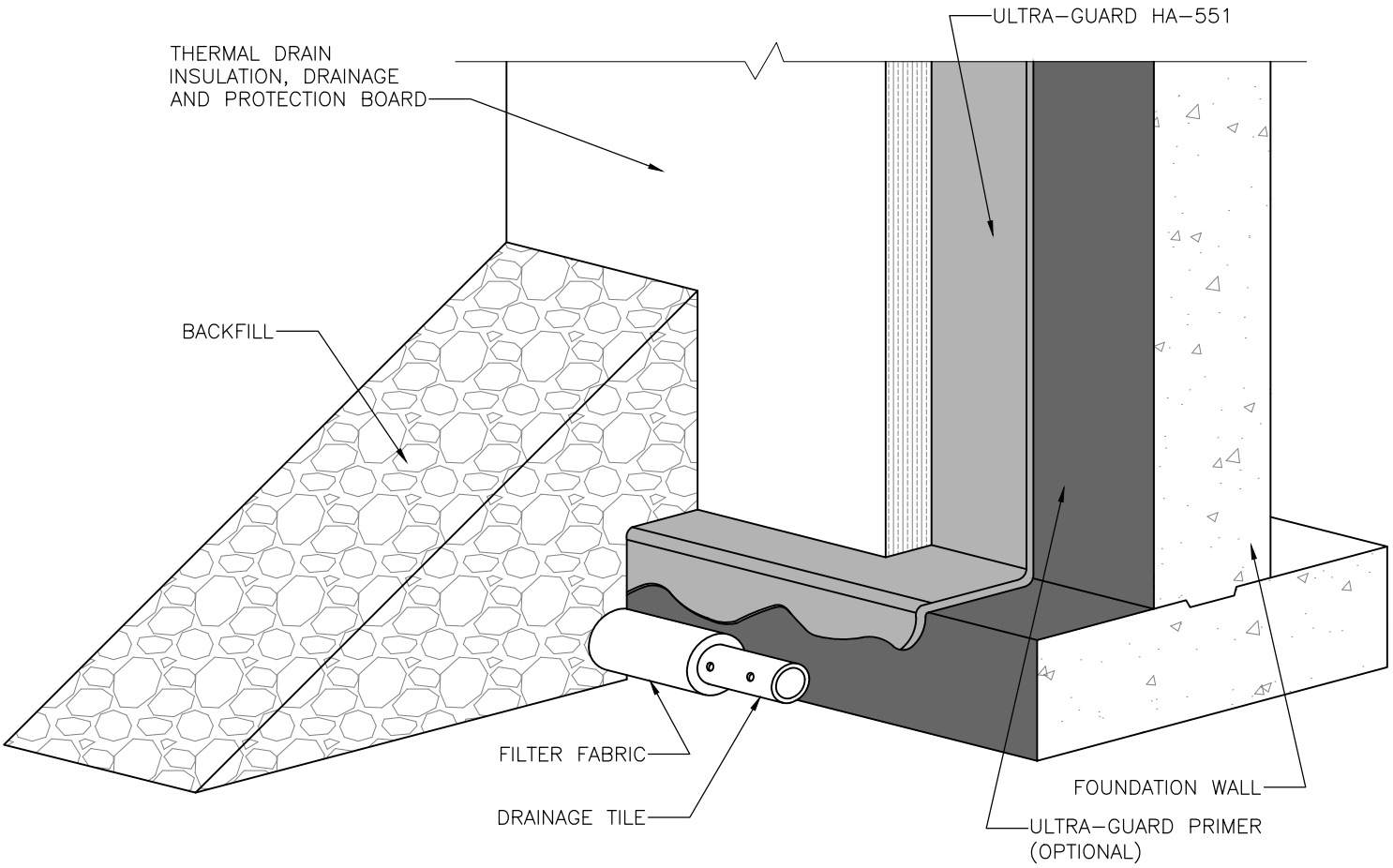
ULTRA GUARD HA-551 WATERPROOFING SYSTEM

DRAINAGE BOARD OPTION 1

GMX

DETAIL ID:	HA-DB1
REPRESENTATIVE:	
DATE:	SHT: OF

FILENAME: HA551-Vertical Option 2.dwg 5-15-23



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

ULTRA GUARD HA-551 WATERPROOFING SYSTEM

DRAINAGE BOARD OPTION 2

GMX

DETAIL ID:	HA-DB2
REPRESENTATIVE:	
DATE:	SHT: OF

DRAINMAX® 200

TWO-PART GEO-TEXTILE COMPOSITE DRAINAGE

GMX
A Garland Industries Subsidiary

COMMERCIAL

DESCRIPTION

Drain-Max 200 prefabricated sheet drain is composed of a dimpled polymeric core with a 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. Drain-Max 200 is an economical solution for single-sided subsurface vertical drainage applications requiring moderate strength and flow capacity.

TECHNICAL DATA

Physical Properties [1]	Test Method	Typical Values
GEOTEXTILE		
Material [2]		PP, NPNW
Water Flow Rate	ASTM D4491	165 gpm/ft^2
		6,724 Lpm/m^2
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) [3]	ASTM D4751	70 sieve
		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
		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 Membranes		No
COMPOSITE		
Recycled Content [5]	CALCULATED	> 70%
Roll Size	MEASURED	4 x 50 ft
Roll Weight [6]	MEASURED	28 lbs

1. 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.
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.

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

GMX, INC. ISO 9001:2015 REGISTERED TO

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DRAINMAX® 220

THREE-PART GEO-TEXTILE COMPOSITE DRAINAGE

GMX
A Garland Industries Subsidiary

COMMERCIAL

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 [2]		PP, NPNW
Water Flow Rate	ASTM D4491	165 gpm/ft²
		6,724 Lpm/m²
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) [3]	ASTM D4751	70 sieve
		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
		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 Membranes		Yes
COMPOSITE		
Recycled Content [5]	CALCULATED	> 70%
Roll Size	MEASURED	4 x 50 ft
Roll Weight [6]	MEASURED	29 lbs

1. 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.
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.

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DRAINMAX® 380

TWO-PART GEOTEXTILE COMPOSITE DRAINAGE

A Garland Industries Subsidiary

COMMERCIAL

DESCRIPTION

DrainMax® 380 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® 380 is recommended for single-sided subsurface horizontal drainage applications requiring very high strength, moderate flow capacity, and a high-survivability geotextile.

TECHNICAL DATA

Physical Properties [1]	Test Method	Typical Values
GEOTEXTILE		
Material [2]		PP, NPNW
Water Flow Rate	ASTM D4491	100 gpm/ft^2
		4,075 Lpm/m^2
Grab Tensile Strength	ASTM D4632	100 lbs
		445 N
CBR Puncture	ASTM D6241	580 lbs
		2,580 N
Trapezoidal Tear	ASTM D4533	80 lbs
		356 N
Apparent Opening Size (AOS) [3]	ASTM D4751	80 sieve
		0.180 mm
Grab Elongation	ASTM D4632	60%
UV Resistance	ASTM D4355	70%/500 Hrs
Permittivity	ASTM D4491	1.5 sec [1]
CORE		
Thickness	ASTM D5199	0.25 in
		6.35 mm
Compressive Strength	ASTM D6364 /	30,000 psf
	ASTM D1621	1,436 kPa
In-Plane Flow Rate [4]	ASTM D4716	13 gpm/ft
		161 Lpm/m
Perforated?		No
Backing Film for Softer Membranes		No
COMPOSITE		
Recycled Content [5]	CALCULATED	> 70%
Roll Size	MEASURED	4 x 50 ft
Roll Weight [6]	MEASURED	49 lbs

1. 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.
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.

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DRAINMAX® 380

TWO-PART GEOTEXTILE COMPOSITE DRAINAGE

GMX
A Garland Industries Subsidiary

COMMERCIAL

DESCRIPTION

DrainMax® 380 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® 380 is recommended for single-sided subsurface horizontal drainage applications requiring very high strength, moderate flow capacity, and a high-survivability geotextile.

TECHNICAL DATA		
Physical Properties [1]	**Test Method**	**Typical Values**
GEOTEXTILE		
Material [2]		PP, NPNW
Water Flow Rate	ASTM D4491	165 gpm/ft^2
		6,724 Lpm/m^2
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) [3]	ASTM D4751	70 sieve
		0.212 mm
Grab Elongation	ASTM D4632	60%
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 Membranes		No
COMPOSITE		
Recycled Content [5]	CALCULATED	> 70%
Roll Size	MEASURED	4 x 50 ft
Roll Weight [6]	MEASURED	28 lbs

1. 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.
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.

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DRAINMAX® 500

TWO-PART GEO-TEXTILE COMPOSITE DRAINAGE

GMX
A Garland Industries Subsidiary

COMMERCIAL

DESCRIPTION

DrainMax® 500 prefabricated sheet drain is composed of a dimpled polymeric core with a 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® 500 is recommended for single-sided subsurface vertical drainage applications requiring high strength and high flow capacity.

TECHNICAL DATA

Physical Properties [1]	Test Method	Typical Values
GEOTEXTILE		
Material [2]		PP, NPNW
Water Flow Rate	ASTM D4491	165 gpm/ft^2
		6,724 Lpm/m^2
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) [3]	ASTM D4751	70 sieve
		0.212 mm
Grab Elongation	ASTM D4632	65%
UV Resistance	ASTM D4355	70% / 500 Hrs
Permittivity	ASTM D4491	2.4 sec^{-1}
CORE		
Thickness	ASTM D5199	0.40 in
		10 mm
Compressive Strength	ASTM D6364 /	15,000 psf
	ASTM D1621	718 kPa
In-Plane Flow Rate [4]	ASTM D4716	18 gpm/ft
		224 Lpm/m
Perforated?		No
Backing Film for Softer Membranes		No
COMPOSITE		
Recycled Content [5]	CALCULATED	> 70%
Roll Size	MEASURED	4 x 50 ft
Roll Weight [6]	MEASURED	38 lbs

1. 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.
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.

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DRAINMAX® 520

THREE-PART GEO-TEXTILE COMPOSITE DRAINAGE

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COMMERCIAL

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 [2]		PP, NPNW
Water Flow Rate	ASTM D4491	165 gpm/ft²
		6,724 Lpm/m²
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) [3]	ASTM D4751	70 sieve
		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
		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 Membranes		Yes
COMPOSITE		
Recycled Content [5]	CALCULATED	> 70%
Roll Size	MEASURED	4 x 50 ft
Roll Weight [6]	MEASURED	29 lbs

1. 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.
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.

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DRAINMAX® 650

TWO-PART GEO-TEXTILE COMPOSITE DRAINAGE

GMX
A Garland Industries Subsidiary

COMMERCIAL

DESCRIPTION

DrainMax® 650 prefabricated sheet drain is composed of a dimpled polymeric core with a woven monofilament 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® 650 is recommended for single-sided drainage applications requiring high strength, high flow capacity, and the filtration performance properties of a woven monofilament geotextile.

TECHNICAL DATA

Physical Properties [1]	Test Method	Typical Values
GEOTEXTILE		
Material [2]		PP, WM
Water Flow Rate	ASTM D4491	145 gpm/ft²
		5,909 Lpm/m²
Grab Tensile Strength	ASTM D4632	365 lbs
		1,624 N
CBR Puncture	ASTM D6241	675 lbs
		3,004 N
Trapezoidal Tear	ASTM D4533	115 lbs
		512 N
Apparent Opening Size (AOS) [3]	ASTM D4751	40 sieve
		0.425 mm
Grab Elongation	ASTM D4632	24%
UV Resistance	ASTM D4355	70% / 500 Hrs
Permittivity	ASTM D4491	2.1 sec-¹
CORE		
Thickness	ASTM D5199	0.40 in
		10 mm
Compressive Strength	ASTM D6364 /	18,000 psf
	ASTM D1621	862 kPa
In-Plane Flow Rate [4]	ASTM D4716	21 gpm/ft
		261 Lpm/m
Perforated?		No
Backing Film for Softer Membranes		No
COMPOSITE		
Recycled Content [5]	CALCULATED	> 70%
Roll Size	MEASURED	4 x 50 ft
Roll Weight [6]	MEASURED	48 lbs

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2. 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.

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DRAINMAX® 680

TWO-PART GEO-TEXTILE COMPOSITE DRAINAGE

GMX
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COMMERCIAL

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 [1]	Test Method	Typical Values
GEOTEXTILE		
Material [2]		PP, NPNW
Water Flow Rate	ASTM D4491	100 gpm/ft²
		4,075 Lpm/m²
Grab Tensile Strength	ASTM D4632	205 lbs
		912 N
CBR Puncture	ASTM D6241	580 lbs
		2,580 N
Trapezoidal Tear	ASTM D4533	80 lbs
		356 N
Apparent Opening Size (AOS) [3]	ASTM D4751	80 sieve
		0.180 mm
Grab Elongation	ASTM D4632	60%
UV Resistance	ASTM D4355	70% / 500 Hrs
Permittivity	ASTM D4491	1.5 sec-¹
CORE		
Thickness	ASTM D5199	0.40 in
		10 mm
Compressive Strength	ASTM D6364 /	18,000 psf
	ASTM D1621	862 kPa
In-Plane Flow Rate [4]	ASTM D4716	21 gpm/ft
		261 Lpm/m
Perforated?		No
Backing Film for Softer Membranes		No
COMPOSITE		
Recycled Content [5]	CALCULATED	> 70%
Roll Size	MEASURED	4 x 50 ft
Roll Weight [6]	MEASURED	53 lbs

1. 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.
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.

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DRAINMAX® GR50

TWO-PART GEOTEXTILE COMPOSITE DRAINAGE MAT

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Introducing DrainMax® GR50, 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® GR50 has a 0.4-inch-thick core, ideal for extensive Green Roof applications requiring Root Barrier drainage, and is available in rolls measuring 4 feet by 50 feet.

1. 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.
2. 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.

TECHNICAL DATA | DrainMax® GR50

Physical Properties	Test Method	Typical Values
GEOTEXTILE - TOP SIDE		
Material [2]		PP, SBNW
Grab Tensile Strength	D 4632	150 lbs 667 N
Grab Elongation	D 4632	50%
CBR Puncture Strength	D 6241	295 lbs 1,312 N
Trapezoidal Tear	D 4533	60 lbs 290 N
UV Resistance	D 4355	70% / 500 Hrs
Apparent Opening Size	D 4491	1.0 sec [1]
Water Flow Rate	D 4491	70 gpm/ft [2] 2,853 Lpm/m [2]
CORE		
Compressive Strength	D 1621 D 6364	15,000 psf 718 kPa
Thickness	D 5199	0.4 in 10 mm
In-Plane Flow Rate [4] *Hydraulic Gradient=1.0*	D 4716	18 gpm/ft 224 Lpm/m
In-Plane Flow Rate [4] *Hydraulic Gradient=0.1*	D 4716	6 gpm/ft 75 Lpm/m
Water Storage Capacity	E 2398	0.05 gal/ft [2] 2.0 L/m [2]
Perforation Open Area	CALCULATED	3.9 in^2/ft [2] 27,080 mm^2/m [2]
GEOTEXTILE - BOTTOM SIDE		
Material [2]		PP, NPNW
Grab Tensile Strength	D 4632	100 lbs 445 N
COMPOSITE		
Recycled Content [5]	CALCULATED	> 50%
Roll Size	MEASURED	4 x 50 ft
Roll Weight [6]	MEASURED	45 lbs

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DRAINMAX® GR100

TWO-PART GEOTEXTILE COMPOSITE DRAINAGE MAT

GMX A Garland Industries Subsidiary

COMMERCIAL

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.

1. 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.
2. 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.

TECHNICAL DATA | DrainMax® GR100

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

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