

1. PRODUCT NAME

Ultra-Shield SB Waterproofing

2. MANUFACTURER

GMX, Inc.
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3. PRODUCT DESCRIPTION

Ultra-Shield SB Waterproofing is a polymer modified asphalt waterproofing membrane. It is designed and recommended for use as the membrane component in an exterior wall waterproofing system. It forms a tough, durable membrane which bridges shrinkage cracks and maintains its superior performance properties when exposed to the chemicals found in soil. Ultra-Shield meets the ICC AC 29 acceptance criteria for cold, liquid applied below grade exterior dampproofing and waterproofing materials.

The addition of rubber polymer to the asphalt coating enables the membrane to:

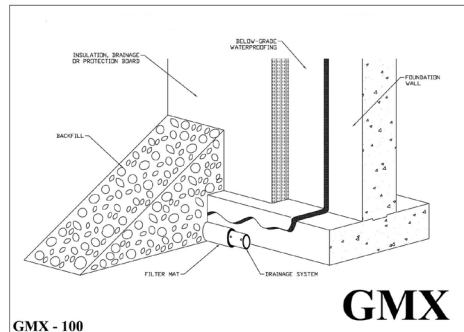
- Elongate up to 850%
- Bridge shrinkage cracks (up to 1/16")
- Control water migration between the coating and application surface (localize leaks)
- Impede water at high heads due to improved water vapor permeance
- Comply with EPA Model Standards for radon control
- Self-heal

Ultra-Shield SB Waterproofing is manufactured to the highest quality control standards and in accordance with ISO 9001 requirements. ISO certification ensures that each gallon produced meets the premier quality control standards in the industry.

Ultra-Shield SB is compatible with a wide range of insulation, drainage and protection products. Your applicator

can design the waterproofing solution best suited to each project's specific application requirements and budgetary constraints.

Storage and Handling Considerations: Store materials in a dry area and protect from direct sunlight. Ideally, the materials should be stored inside in a temperature controlled environment (interior temperatures between 60–80°F). Any materials exposed to the elements should be elevated above the ground and covered by a tarpaulin. Materials should not be exposed to excessive heat or direct flame.



Ultra-Shield SB should not be applied during inclement weather and the installation should not proceed in the event that precipitation is probable during the application. Consult your local GMX representative or the GMX Technical Department for application recommendations when application temperatures are less than 20°F. Store waterproofing materials at room temperature until immediately prior to use when the ambient temperature is less than 40°F. Discontinue application if the material can not be stored at temperatures which permit even distribution of product. Avoid inhaling the spray mist and take precautions to ensure adequate ventilation. Consult the product MSDS Sheet prior to spraying.

4. INSTALLATION

Preparatory Work: The walls and footings must be dry and of sufficient strength and design to ensure

structural integrity. Concrete wall and mortar joints must cure a minimum 16 hours before Ultra Shield SB is applied. Foundation design using concrete blocks should fall within guidelines established by the National Concrete Masonry Association and be acceptable to the local building code enforcement agency.

Remove dirt and debris from the walls and footings with a stiff brush or broom. Scrape any loose mortar and debris from the walls and footings with a metal scraper. Do not apply Ultra Shield SB over standing water. Repair any cracks in excess of 1/16" along the footings or in the wall surface and all honeycombed areas with a non shrinking grout. Fill all voids around tie holes, recessed ties and other small voids with an acceptable fiber reinforced asphalt roofing cement or cementitious repair material.

Membrane Installation: After the wall and footing surfaces have been properly prepared, spray, roller or brush apply Ultra Shield SB over the entire wall surface (to the designated grade line) and along the perimeter. Particular emphasis should be paid to wall joints and the joint between the walls and footings. Ultra Shield SB is applied at a rate of 20-25 sq.ft. per gallon. A two pass application is generally recommended to ensure sufficient dry mil thickness without excessive running or puddling. To ensure a smooth, consistent spray pattern, warm the material to 100°–130°F immediately prior to spraying.

Protection, drainage or insulation board is installed over Ultra Shield SB to protect the membrane from damage by the backfill, to assist in draining water away from the foundation and/or to insulate the foundation wall. It is required for commercial waterproofing applications.

TECHNICAL DATA - Ultra-Shield SB Waterproofing

Color	Black
Solids	62% by Weight (+ or - 5%)
Density	7.7 lbs./gal (0.92 g/cm ³)
Application	Airless spray, brush, roller
Cure Time	12 - 24 hours
Adhesion to Poured Cement	Avg. 2.04 lbf/in. (ASTM C 836, Sec. 6.10)
Low Temp. Flex and Crack Bridging	No Cracking or loss of adhesion (Table 1 of ICC AC 29 @ -10°F) Avg. .231 perms
Water Vapor Perm. (ASTM E 96, Water method)	
Extensibility After Heat Aging (Table 1 of ICC AC 29)	pass 1/4" no cracking
Resistance to Water (Testing @ 85 mils per ASTM D 2939, Sec. 15)	No blistering or reemulsification
Remain in Place During App.	Meets ICC AC 29 Requirement (Testing @ 85 mils per ASTM D 2939, Section 15)
Liquid Water Absorption (ASTM D 1228, by weight)	Less than 0.5%
Resistance to Degradation (ASTM E-154)	Excellent
Bacterial Attack ASTM D 4299-83)	No degradation

Ultra-Shield SB is compatible with a wide range of insulation and protection boards including, but not limited to rigid fiberglass insulation/protection board, extruded polystyrene insulation and sheet drain materials.

Any question regarding the compatibility of Ultra-Shield SB with a specific insulation/protection board or drainage board should be directed to the GMX Technical Department.

Drain tile or strip drain must be installed as per the manufacturer's instructions to ensure proper removal of water from the foundation walls and footings. Backfill must be graded to direct surface water away from the exterior foundation walls.

Additional Procedures for Poured Concrete Walls:

Allow the wall to cure a minimum of 16 hours after the forms have been removed prior to spraying Ultra-Shield SB. Additional cure time may be required in cold weather. Remove wall ties prior to application. Fill any large voids and tie holes with a non-shrinking grout or asphalt based cement. Do not apply Ultra Shield SB to frozen concrete.

Additional Procedures for Concrete Block Walls:

Mortar joints must be made flush to provide a void free bonding surface. Ultra Shield SB will adhere to both parged and unparged concrete block walls. Due to the porous nature of unparged concrete block walls, additional material will be required to achieve the specified dry mil thickness. The mortar must be Type M or Type S as specified by ASTM C-270-91a (Specification for Mortar for Unit Masonry, ASTM Vol. 04.01 and 04.05). Allow the mortar joints to cure a minimum 16 hours prior to applying waterproofing.

Spray Equipment

Recommendations: Gasoline powered, airless spray units with a minimum 4,000 p.s.i. rating will effectively spray any GMX waterproofing product. For efficient spraying, use a heat exchanger to warm product to 100–130°F immediately prior to spraying. A reverse-a-clean spray tip with an orifice between .029 and .035 is recommended for spraying Ultra Shield SB. Most spray systems utilize 150' of hose. Use ½ inch , 5,400 p.s.i. rated hose for the first 100 feet. Use 3/8 inch, 4,700 p.s.i. rated hose for the next 50 feet. A 4 foot, ¼ inch whip line is used immediately before the spray gun to facilitate spraying. Do not mix water and solvent based materials in the hose lines. Clean lines with mineral spirits before switching materials. Clean spray equipment with mineral spirits.

5. AVAILABILITY AND COST

GMX materials are produced in and shipped from our plant in Cleveland, OH. For the name and number of the nearest GMX representative, call us at 866-228-7743. Our representatives can provide pricing and put you in contact with our nearest stocking distributor.

6. WARRANTY

GMX warrants its material for 10 years and its system applications for a period of up to 20 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 or the Cleveland office.

7. 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.