

## PRODUCT DESCRIPTION

BoneSeal™ damproofing membrane is an asphalt emulsion developed for use as a below grade damproofing barrier. Typical uses for BoneSeal™ include damproofing, residential poured foundations and crawl spaces. BoneSeal is spray applied and will completely cure in 2 to 6 hours.

## APPLICATION

- Poured Foundations
- Pre-Cast Foundations
- Retaining Walls
- Cavity Wall Air Barrier

**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). Do not allow BoneSeal to freeze. 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.

BoneSeal 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 SDS Sheet prior to spraying.

## 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 BoneSeal 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 BoneSeal 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 BoneSeal 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. BoneSeal is applied at a rate of 20–25 sq. ft. per gallon (required minimum 60 mils wet, 40 mils dry) in residential applications and to the specified rate in

commercial applications. Protection, drainage or insulation board is typically installed over BoneSeal to protect the membrane from damage by the backfill, to assist in drainage and/or to insulate the foundation wall. Protection Board is not required by code in most situations however it is recommended to improve the overall performance of the system. BoneSeal is compatible with a wide range of boards including but not limited to, rigid fiberglass, composite sheet drain, synthetic fiber boards and others. BoneSeal is chemically compatible with polystyrene foam insulation but we urge caution with its use\*. Any question regarding the compatibility of BoneSeal with a specific insulation/protection 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.

**Atmospheric Condition Restrictions:** BoneSeal 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 15°F. When the ambient temperature is below freezing the wall should be free from snow, ice, frost or any frozen moisture as this will prevent proper adhesion. Please be aware that Bone Seal cannot freeze before it is in place on the substrate wall.

**Additional Procedures for Poured Concrete Walls:** BoneSeal can be applied immediately after the forms have been removed. 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= WB to frozen concrete.

**Additional Procedures for Concrete Block Walls:** Mortar joints must be made flush to provide a void free bonding surface. BoneSeal will adhere to both parged and unparged concrete block walls. Due to the porous nature of unparged concrete block walls, additional material may be required to achieve the specified dry mil thickness. The mortar must be Type M or Type S as specified by ASTM C-270-91 a (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 Ultra-Shield 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 BoneSeal. 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.

## AVAILABILITY AND COST

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

## WARRANTY

GMX may offer warranties up to 30 years for its membranes and system applications when they are installed by a Certified GMX installer 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 Monroe, NC office.

## 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 SERVICES | PRODUCT SPECIFICATIONS

Type: Polymer modified asphalt waterproofing membrane

Color	Black/ Brown
Solids	62% ± 2%
Density	8.4 lbs/gal
Thickness	60-65 sf/gal for 16 mil (dry) application
Cure Time	2 - 6 hours

**CAUTION:** KEEP FROM FREEZING DURING TRANSIT AND STORAGE.

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MR Credit 5.2:	Regional Materials: 20% Extracted, Processed and Manufactured Regionally



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