

MONOCHEM

TECHNICAL BULLETIN

AQUASEAL ME 12[®]



POSITIVE WATERPROOFING FOR CONCRETE & MASONRY

MADE IN U.S.A.

PRODUCT DESCRIPTION:

ITEM NO. 5200

AQUASEAL ME12 is a water-based, ready to use, Silane Oligomeric Alkyl Alkoxysiloxane micro emulsion solution. **AQUASEAL ME12** forms a colorless, non-staining, non-yellowing, breathable, deep penetrating water repellent for concrete and masonry. It is designed for use on above grade exterior/interior **VERTICAL** applications. **AQUASEAL ME12** effectively reduces seepage through the sound surface to which it is applied.

AQUASEAL ME12 can be used on porous substrates to protect against the damaging effects of water, de-icing chemicals, freeze-thaws, acid rain exposure and other atmospheric chemicals without altering or changing the texture or the surface appearance.

ADVANTAGES:

- Complies with all states VOC requirements.
- Excellent water repellency for up to ten years.
- Breathable and permeable to water vapor.
- Paintable with latex or oil based paints.
- Prevents future deterioration by natural causes.
- Helps stop concrete dusting and stucco spall off.
- Helps control alkali efflorescence and prevents water from leaching through sound surfaces.
- As an additive to latex paint: one (1) pint per gallon of latex paint gives better adhesion, more protection and better washability of paint.
- As a semi-transparent color sealer: one (1) part latex paint mixed with five (5) parts of **AQUASEAL ME12**.
- As a solid color sealer: 1st coat: Mix one (1) part of latex paint to five (5) parts of **AQUASEAL ME12**. 2nd coat: Mix one (1) part **AQUASEAL ME12** to five (5) parts of latex paint.
- As an underseal, it lengthens the life and color of paint while preventing saponification (blistering and flaking of paint on the surface).

PREPARATION:

1. The cause of the water infiltration must be determined. The substrate should be inspected to identify repairs or improvements which are necessary prior to application.

Excess Moisture: The source of moisture intrusion (ex. Condensation, settling, cracks, plumbing leaks, hydrostatic pressure, settling cracks, earthquake movements) into the building must be corrected prior to the application of **AQUASEAL ME12**.

2. **AQUASEAL ME12** should not be used as a substitute for additional details which may be required by Model or applicable Building Codes or Industry Recommendations such as the use of flashing, screeds, weep holes, weep tubes, vents, or additional back-up moisture control systems. Relative to Masonry, it should be considered a water repellent only.
3. Caulk and fill cracks, holes, voids, etc. larger than hairlines (1/16").
4. Treat or clean alkali, lime or efflorescence on the surface with a proper neutralizing agent. Allow 24 to 48 hours to dry before application.

TECHNICAL DATA:

Composition	.....Silane / Siloxane Oligomeric
Active solid by weight (ASTM D2369)	.....12% ±2
Weight per gallon	.....8.31 Lbs
VOC Level	..... < 32 g/L
Penetration	.....3/8 inch Minimum
Reduction in Water Leakage (ASTM D514)	.....99% reduction
Moisture Vapor Transmission	
(ASTM E 96)	.....83-95% Minimum
(ASTM D 1653-03)	.....86-96% Minimum
Accelerated Weathering 2500 hrs (ASTM G154)	.....No loss in repellency
NCHRP 244 Series II (AASHTO T259 & AASHTO T260)	
Reduction of Water Absorption	.....86%
Reduction in Chloride Ion	.....92%
NCHRP 244 Series IV	
Reduction in Chloride Ion	.....95%
Scaling Resistance 100 Cycles	
(ASTM C 672)	.....Zero, No Scaling
Water Repellency (Absorption)	
(ASTM C 67)	.....97.6% Reduction
(SS-W-110-C) US Federal Spec	.....97.0%
(ASTM C 140)	.....90% Effective
(ASTM C 642) @ 48 Hours	.....90% Effective
Efflorescence Resistance (NBS 883)	.....Rated Highest
Surface Appearance	.....No Change
Warranty	.....Ten Years

OUTDOOR EXPOSURE TESTS:

UV Resistance	.....Excellent
Oxidation Resistance	.....Excellent
Pollution Resistance	.....Excellent
Dust Resistance	.....Excellent
Polymerized Content	.....Excellent
Water Resistant	.....Excellent

5. All preparation, painting, and caulking of joints or cracks should be allowed to cure prior to application.
6. Cure new concrete 28 days before application.
7. Do not apply **AQUASEAL ME12** to a wet surface. All surfaces must be dry for a minimum of 24 hours following rain. Moisture level should not exceed 15%.
8. In hot, dry weather it is recommended that the surface be slightly damp before application to improve material penetration.

LIMITATIONS:

AQUASEAL ME12 does not form a water-proofing membrane and does not seal inaccessible areas. It will not bridge cracks, fill large pores or compensate for flawed construction. Exposed walls must be capped and the backside of parapet walls must be sealed, flashings must be in place and weep holes and drains installed and functioning (where applicable).

7 THERMAL AND MOISTURE PROTECTION WATER REPELLENTS 07190

MONOPOLE INC. UPDATED OCTOBER 2010



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APPLICATION:

- **AQUASEAL ME12** must be applied in a small area prior to doing the complete job to insure proper results and to determine the proper coverage and application procedures.
- Apply with a brush, roller or, for best results, use spray equipment such as a compressor driven airless, pump or Hudson type sprayer. Use low pressure (not to exceed 25 PSI), allowing excess material to run down 10 to 12 inches (back roll all rundowns) assuring enough product has penetrated the surface. TIP SIZE: .035 orifice.
- **AQUASEAL ME12** should be applied in a uniform manner that saturates the entire surface by using horizontal and vertical passes, working areas from top to bottom.
- **AVOID PUDDLING.** If puddles form, broom out.
- **AQUASEAL ME12** should be used in a one coat application unless the surface is very porous. For porous surfaces apply the 2nd coat "wet-on-wet" not exceeding 15 minutes between coats.

Masonry and Mortar Joints: Due to the adsorbent nature and design of certain masonry mortar joints (ex. recessed joints) an extra zoned application of **AQUASEAL ME12** is recommended (to ensure a proper seal) prior to proceeding with a more broadcast coating for each area to be protected.

AQUASEAL ME12 should be applied in a uniform manner. The 1st coat consists of a light fog spray that wets the entire surface and breaks the surface tension. The fog coat must be followed immediately with the flood coat to achieve maximum penetration. Allow the material to run down 10 to 12 inches and back roll it into the substrate.

AQUASEAL ME12 is to be used in a one coat application. If the surface is porous and an additional treatment is needed, a second coat should be applied after "wet on wet" within 15 minutes. Do not apply more material than can be absorbed into the surface. Excess material remaining may result in a glossy appearance that can alter the adhesion of subsequent applications of paints or other coatings.

COVERAGE RATE

Coverage rate may vary considerably due to the porosity of the surface. Always test and approve with the project architect and/or building owner prior to doing the complete job.

<u>SUBSTRATE</u>	<u>COVERAGE</u>
Mammoth Block	60-80
Split Face Block	50-70
Standard Block	60-80
(ASTM C90-75 Grade N)	
Old Brick	80-100
New Brick	110-140
Mexican Tiles	40-60
Porous Concrete	60-80
Aggregates	110-150

*Concrete blocks and other rough and porous substrates (Vertical) will require 2 coats of **AQUASEAL ME 12**. Apply a second coat at the coverage rate of 100-140 sq/ft per gallon.

LEED CREDITS

AQUASEAL ME12 qualifies for earning LEED® credits for Environmental Quality, EQ 4.1 & 4.2 Low-Emitting Materials, based on low contribution of VOC.

CAUTIONS:

- **AQUASEAL ME12** is not recommended for below grade waterproofing or where hydrostatic pressure is present.
- **AQUASEAL ME12** will not prevent water penetration or help control alkali efflorescence through unsound or cracked substrates.
- Do not apply in windy conditions or at temperatures below 40°F or above 90°F.
- Do not apply if rain is anticipated within 24 hours. Allow the surface to dry at least 24 hours after rains or until the surface moisture level is below 15%.
- Do not use **AQUASEAL ME12** as a clear sealer over wood products, in particular redwood, pine or cedar. It will create a reaction with the acidic resin and turn the surface darker. For best results, substitute **AQUASEAL 2** Water Base formula for all wood products.
- Protect shrubbery, plants, grass, glass, metal and other glazed surfaces during application. Clean drips, runs and overspray residue while still wet, using detergent and water. Dried material may require a solution of vinegar and water or petroleum distillates for removal.

STORAGE:

Store in temperatures between 40°F. to 85°F. Protect from freezing, moisture and direct sunlight.

SHELF LIFE:

One year in well protected storage.

SAFETY & FIRST AID:

Use in a well ventilated area or wear an air-supplied respirator. Always wear protective goggles and gloves. If inhaled, move immediately to fresh air. In case of skin or eye contact, flush immediately with water for 15 minutes. Remove contaminated clothing and shoes. Call a physician. Local, state and federal regulations should be consulted for proper-disposal-procedures.

GUARANTEE:

AQUASEAL ME 12 is backed by a five and ten year warranty. It is available on an individual job basis and must be approved before application. Contact Monopole's service centers for further information.

WARRANTY INFORMATION: MONOPOLE believes that the information in this publication is an accurate description of the typical characteristics and/or uses of the product or products. It is your responsibility to thoroughly test the product in your specific application to determine its safety and performance capabilities. Since use of this product is beyond our control, MONOPOLE, INC. cannot assume any risk or liability for results obtained when not used according to our specifications and directions. Unless MONOPOLE provides a specifically written statement of fitness for a particular use, MONOPOLE'S sole warranty is that the product will meet its current sales specifications. MONOPOLE disclaims any other expressed or implied warranties, including the warranty of merchantability and fitness for use. Your exclusive remedy and MONOPOLE'S sole liability for breach of warranty is limited to a refund of the purchase price or replacement of any product proven to be defective. In no event shall the seller be liable for any loss of profits or other consequential damages, including labor charges.



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