

AQUASEAL® STAIN

TECHNICAL BULLETIN



SEMI-TRANSPARENT or OPAQUE • REGULAR or WATERPROOF

MADE IN U.S.A.

PRODUCT DESCRIPTION:

AQUASEAL STAIN is a durable water based acrylic emulsion. It creates uniform color toning for all concrete and masonry surfaces. It also maintains the natural look, beauty, and texture of the surface without giving a heavy painted look. **AQUASEAL STAIN** is tintable to any color using universal colorants.

BASIC USES: For Porous Substrates Only (120-180 grit surface profile) **AQUASEAL STAIN** must fully penetrate to perform as intended. If the surface is smooth or not water absorbent, acid etching, sand blasting or shot blasting is required to meet the surface criteria. Smooth surfaces require 2-3 etchings to achieve 120-180 grit surface profile.

For etching instructions, refer to our **INSTRUCTIONS FOR APPLICATION OF MONOCHEM COATINGS**, or contact our technical service department.

AQUASEAL STAIN is designed for exterior or interior application over vertical or horizontal, concrete, brick, lightweight concrete, slump and regular block, precast panels, stucco, and porous tiles. For wood applications, please consult Monopole's technical department.

ADVANTAGES:

- Will not peel, chip, or flake like paint.
- Maintains the natural grain and texture of the surface.
- Breathable allowing moisture to escape from the surface.
- Contains no harmful solvents, toxic fumes or ingredients.
- Easy to use.
- Does not oxidize like paint.

Product Qualifications	
Cal Green	Yes
SCAQMD	Yes
CARB	Yes
LEED (New Construction)	Yes
LEED (New Schools / CHPS)	Yes

MPI APPROVED PRODUCT:

MPI # 58 Stain, for Concrete Floors

PREPARATION:

- The surface must be unsealed, dry (< 15% moisture), clean, and free from adhesion affecting contaminants, alkali, lime and efflorescence. All previous silicones, paints or other sealers must be removed.
- Allow the concrete, masonry and stucco to cure for 28 days prior to staining. This allows the initial moisture that is unavoidable in a newly built wall to escape. If this initial moisture causes efflorescence, the efflorescence must be removed prior to applying the stain.
- Do not apply in windy conditions or if rain is expected within 24 hours because water can fade the color and prevent drying.
- Do not apply stain when the surface temperature is below 45°F, or above 95°F, or in direct hot sun.

TECHNICAL DATA:

Composition - Regular Formula	Acrylic Polymer
Composition - Waterproof Formula	Acrylic, Silane / Siloxane
Solids by weight Semi Transparent Base	20% ± 2
Solids by weight Opaque Base	28% ± 2
Weight per gallon	8.5 Lbs.
VOC Level	< 50 g/L
Finish after application.....	Flat
Recoat Time	1-3 Hours

Water Penetration Tests: Per (ASTM C 67-07a)

After 1 hour	98.6% Repellency
After 2 hours	98.5% Repellency
After 5 hours	98.1% Repellency
After 24 hours	98.0% Repellency

Moisture Vapor Transmission:

Per (ASTM E 398).....	3.0 ± 0.5 Perms
Per (ASTM E 96).....	5.0 ± 0.5 Perms

Accelerated Weathering: (ASTM G154): (3000 hours)

.....	No Loss of water repellency
.....	No color changes, no fading, flaking or chalking
.....	No staining or discoloration

Reduction in Water Leakage (ASTM E514) [Wind Driven Rain]

When used with Aquaseal ME12 for vertical applications:	
Reduction in Split Face Block:	93%

Resistance to Sulfide Staining: (ASTM D1712)

.....	No staining or discoloration. Excellent color retention.
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Reduction of Chloride Ion Penetration: (ASTM D1218)

.....	94% Reduction@13-33mm penetration
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UV Resistance (ASTM G90)

.....	Excellent color retention
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Salt Spray Resistance (ASTM B117) (600 hours, 5% Sodium Chloride Fog Solution)

.....	No deteriorations, no efflorescence, no color fading
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Efflorescence Resistance

Polymerized Content

Pollution Resistance

- Prior to applying stain, all mortar joints should be sound. Cracks, holes or voids larger than hairlines (1/16") should be filled with a paintable patching material and allowed to cure.
- Horizontal surfaces: Make sure the surface is water absorbent and that there is enough surface profile (at least 180 grit) to allow the **AQUASEAL STAIN** to fully penetrate.

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TRANSPARENT FINISHES 09930
PROTECTIVE COATINGS

MONOPOLE INC.
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APPLICATION:

Monopole, Inc. Requires a test patch to ensure the product meets all the established visual and performance criteria.

Before applying stain, thoroughly mix it for at least 5 minutes by hand or 3 minutes if power stirring. Continue to mix the stain during application.

AQUASEAL STAIN is best applied by using an airless gun with a 0.015 - 0.019 spray tip. Hold the spray gun at least 12 inches from the surface, avoid overlapping, and use crisscrossing techniques. Recoat: when fully dry (~1-3 hours), apply a second coat for the desired appearance and even tone.

APPLICATION HINTS:

1. Do not allow the stain to run and backroll stained areas to avoid pooling or puddling. Also, ensure the stain has penetrated. Remove or wipe away excess material which may cause the stain to become glossy or tacky.
2. Feather edge the stain at the end of each pass.
3. Do not let the edge of one pass dry before making the next pass.
4. Don't stop applying the stain in random spots. Stop the application only at the inside or outside of corners or at the joint.
5. When conducting a waterproof application, only the final coat of **AQUASEAL STAIN** should be the waterproof version.

RECOMMENDATIONS:

AQUASEAL STAIN is available in Semi-Transparent or Opaque, regular or waterproof. When applied over highly porous surfaces or when water repellency is required, use the following options:

For Semi-Transparent Stain Application:

Option #1:

Apply **AQUASEAL STAIN** Semi-Transparent Regular Formula (7500). Allow to dry for 24 hours, followed by one coat of **AQUASEAL ME12 (5200)**.

Option #2:

Apply one coat of **AQUASEAL STAIN** Semi-Transparent regular (7500). Allow 1-3 hours of dry time followed by one coat of **AQUASEAL STAIN** Semi-Transparent, Water Repellent Formula (7600).

For Opaque Stain Application:

Option #1:

Apply **AQUASEAL ME12 (5200)** first. Allow it to dry for 24 hours, followed by **AQUASEAL STAIN** Opaque Regular Formula (8600).

Option #2:

Apply one coat of **AQUASEAL STAIN** Opaque regular (8600). Allow 1-3 hours of dry time, followed by one coat of **AQUASEAL STAIN** Opaque, Water Repellent (8500).

COVERAGE: Always test a small area prior to proceeding with entire application.

Surface Type	Approximate Coverage	
	1st Coat	2nd Coat
Split face, concrete blocks, stucco, Mexican tiles.....	120 - 160	160 - 200
Precast concrete, poured concrete, brick, adobe blocks	230 - 260	300 - 350

The coverage rates are approximations. Absorption rates will depend upon the texture and porosity of the substrate. Allow for extra surface area when estimating the coverage for raked joints and fluted or split-face blocks.

TINTING:

AQUASEAL STAIN Semi-Transparent (7500, 7600) is short-filled 4 ounces per gallon and 3-4 ounces of color tint can be added. Do not exceed 4 ounces of colorant.

AQUASEAL STAIN Opaque (8500, 8600) is short-filled 4 ounces per gallon and 4-5 ounces of color tint can be added (do not exceed 6 ounces).

Depending on the intended use of **AQUASEAL STAIN**, the following Monochem clear top coats may be used for added protection. Always allow **AQUASEAL STAIN** to dry for a minimum of 24 hours before applying any of the following:

VERTICAL SURFACES

- AQUASEAL ME12** -Flat Finish
- AQUASEAL 20** - Flat Finish
- AQUASEAL 40** - Flat Finish
- AQUAPELL** - Flat Finish
- AQUASEAL HEAVY DUTY** - Flat Finish
- PERMASHIELD 200** - Matte Finish or High Gloss
- PERMASHIELD PREMIUM** - Matte Finish or High Gloss

HORIZONTAL SURFACES

- PERMASEAL** - Semi-Gloss Finish
- PERMASHIELD 200** - Matte Finish or High Gloss
- PERMASHIELD 2000** - High Gloss
- MONOCHEM 200** - Gloss (Interior Only)
- PERMASHIELD PREMIUM** - Matte Finish or High Gloss
- AQUASEAL 20** - Flat Finish
- AQUASEAL 40** - Flat Finish

TECHNICAL SERVICES:

Contact Monopole, Inc. Monday through Friday at (800) 491-9977 for technical assistance on any Monochem coating or system. Monopole, Inc. has field representatives that can aid you with applications, specifications, and field assistance.

SHELF LIFE:

AQUASEAL STAIN will remain useable in well protected storage for 12 months.

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. But it is the end users responsibility to thoroughly test the product in the specific application to determine its performance efficacy and safety. 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 specific written statement of fitness for a particular use, MONOPOLE'S sole warranty is that the product will meet its current sales specifications. MONOPOLE specifically disclaims any other expressed or implied warranty, including the warranty of merchantability and fitness for use. The exclusive remedy and MONOPOLE's sole liability for breach of warranty is limited to a refund of the purchase price or replacement of product proven to be defective. In no event shall the seller be liable for any loss of profits or other consequential damages. Under no circumstance will MONOPOLE pay labor charges.