

PERMASHIELD® PREMIUM

TECHNICAL BULLETIN



MADE IN U.S.A.



Environmentally Friendly Graffiti Control System

PRODUCT DESCRIPTION:

ITEM NO. 5600, 5650

PERMASHIELD PREMIUM is the most advanced environmentally friendly formulation for Permanent Graffiti Control, utilizing an easy to use graffiti removal system. **PERMASHIELD PREMIUM** is intended for use on unpainted or painted concrete, masonry, stucco, prepared metal, EIFS, murals, signs and other surfaces. It creates a clear protective, UV resistant coating where graffiti tagging can be removed without affecting the appearance of the substrate.

ADVANTAGES:

- ZERO VOC; No fumes, odor or induction time
- 10 Year Unlimited Warranty for Graffiti Removals
- State and City Approved
- UV, Stain, Chemical and Hot Tire Resistant
- Available in a Clear or Pigmented System to match any architectural tone or finish
- Available in Matte (<5°) and High Gloss (>90°)
- Non-Yellowing, Non Chalking, Breathable
- May be used as a Dry Erase Coating

SYSTEM COMPOSITION:

A. UNPAINTED (NATURAL) SURFACES:

1. **AQUASEAL ME12** (1 Flood Coat)
2. **PERMASHIELD BASE COAT** (2 Coats)
3. **PERMASHIELD PREMIUM** (2 Coats)

B. PAINTED SURFACES:

1. Depending on the surface, apply one to two coats of **PERMASHIELD BASE** to create a pinhole free surface for the **PERMASHIELD PREMIUM**.
2. **PERMASHIELD PREMIUM** (2 Coats)
3. If the surface is only painted for part of the elevation, make sure to apply one coat of **AQUASEAL ME12** to seal the unpainted surface area.

READ ALL TECHNICAL & MATERIAL SAFETY DATA SHEETS BEFORE PROCEEDING WITH THE APPLICATION.

SURFACE PREPARATION:

- Substrates to receive material must be clean and free from all dirt, rust, scale, bond-breakers, grease, moisture, efflorescence, lime, and other foreign substances which are detrimental to the adhesion and required appearance of the **PERMASHIELD PREMIUM SYSTEM**.
- Concrete, stucco, plaster and masonry must be cured at least 28 days. Level protrusions, and repair cavities, voids, holes, cracks, etc. that are larger than 1/16". If adhesion is an issue, sandblast, abrasive blast or acid etch dense, non-porous concrete.
- Freestanding walls require a treatment of **AQUASEAL ME12** on the unpainted/unsealed backside and sides. Horizontal puddle prone wall caps need to be sealed with a film forming, premium elastomeric coating, such as **MONOCHEM ULTRA-LASTIC**, to protect against water penetrating. A metal cap is another option. Sloped caps require an application of **AQUASEAL ME12**.

TECHNICAL DATA:

Solids by Weight (ASTM D2369)	55% ±2
Solids by Volume (ASTM D2697)	54% ±2
VOC Level (ASTM D3960)	Zero
Film appearance, Gloss 60° (ASTM D523)	90°
Film appearance, Matte 60° (ASTM D523)	4-6°
Mixed Viscosity @75°F (ASTM D2369)	85-90 KUs
Weight	.96 Oz. Kit: 9 Lbs. 3 Gal. Kit: 28 Lbs.
Tensile strength (ASTM D412)	5950 PSI
Elongation (ASTM D412)	150%
Modulus @100% Elongation	4190 PSI
Hardness, pencil, 2 weeks (ASTM D530)	2 H
Taber Abrasion Resistance (ASTM D4060)	<45 mg loss/1000 Cycles
Impact Resistance (ASTM D2794) Reverse	160 In/Lbs
Moisture Vapor Transmission (ASTM 1653-03(2008))	5.99% perms
Product Qualifications Approval	See Table 1
Chemical Resistance (ASTM D1308)	See Table 2
Graffiti Resistance (ASTM D6578)	See Table 3
Accelerated Weathering (ASTM G154)	8000 hours
	No blistering, chalking, gloss or color changes
Cyclic Weathering (AASHTO R-31)	No blistering, cracking, checking, softening or delamination.
	Maximum change of 10 gloss level.

DRYING SCHEDULE @ 3.0 mils wet (75 microns):

	@50°F	@77°F 50% RH	@100°F
To Touch:	8 hours	4-6 hours	2 hours
To Recoat	12 hours	6-8 hours	4 hours
To Cure:	14 days	7 days	5 days

If maximum time allowed between coats is exceeded (16-18 hours), abrade the surface prior to recoating or topcoating. Drying time is temperature, humidity and film thickness dependent.

Pot Life: Gloss Finish: 1 Hour, Matte Finish: 2 Hours

All below grade wall areas should be protected with a below grade waterproofing membrane such as **BLACK EMULSION** or **MONOCHEM 300**.

- Non Ferrous (glazed, aluminum, stainless steel, copper):** Remove the zinc and oily film with a neutral detergent or emulsion cleaner. Acid etching with **MONOCHEM METAL ETCH** or blasting lightly with fine abrasives are also options. Then apply coatings within 3 hours.
- Ferrous Metals (metal, steel, iron):** Remove all loose rust, dirt, grease or other contaminants by one of the following depending on the degree of cleanliness required. Blast SSPC-SP3; SSPC-SP2; SSPC-SP6; SSPC-SP7. Blast lightly with fine abrasives or conduct a light etching. Then rinse using a Zinc treatment. A rust inhibitive primer is then required (within 3 hours) to go directly to the metal or steel.

We recommend using **METAL ETCH** to prepare any metal for painting. After using **METAL ETCH** rinse the surface using a Zinc treatment. All metal surfaces that were blasted or etched must be primed/coated within 3 hours

9

GRAFFITI RESISTANT COATINGS 09 96 23
PROTECTIVE COATINGS

MONOPOLE INC.
UPDATED JANUARY 2015



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COMPOSITION AND MATERIALS:

(For complete instructions refer to each product's Technical Data)

SEALER COAT: AQUASEAL ME12

AQUASEAL ME12: is a clear flat, water base, penetrating Silane/Siloxane water repellent. It must be applied to the entire exterior elevation (unless the surface is painted and sealed for the full elevation) to maintain the integrity of the natural (unpainted) surfaces and to protect the **PERMASHIELD PREMIUM** application. **AQUASEAL ME12** protects against water seepage and allows for a more consistent application of the Graffiti Control System.

- A. **AQUASEAL ME12** should be applied in a uniform manner. Each application coat consists of a light fog spray coat that wets the entire surface and breaks the surface tension. The fog spray coat must be followed immediately with a flood coat to achieve maximum penetration. Allow the material to run down 10 to 12 inches. Back rolling the run downs isn't required but will maximize the seal. A low pressure spray gun with a tip size of 0.035 inch is recommended. Allow 24 hours of dry time prior to applying **PERMASHIELD BASE**.
- B. The estimated coverage rate is approximately 50-80 square feet per gallon over porous concrete including mammoth block, standard block, split face block, old masonry brick, etc. Refer to our Technical Data Sheet for additional spread rates and information.
- C. Coverage rates may vary considerably due to the porosity of the substrate. Always test and obtain approval from the project architect and/or building owner prior to starting the job.

NOTE: For chalky concrete, stucco, plaster, and tilt-ups, substitute **AQUASEAL ME12** with **AQUABOND**. **AQUABOND** positive waterproofing cohesively binds chalky surfaces and is available in a clear finish. For detailed information and application instructions, please refer to the technical data pages.

BASE COAT: PERMASHIELD BASE

PERMASHIELD BASE is a single component, water based aliphatic polyurethane designed to provide a pin-hole free surface for the **PERMASHIELD PREMIUM**. It can be applied to porous substrates such as split-face block, mammoth block, CMU, stucco, masonry and other permeable substrates.

PERMASHIELD BASE is available in both clear base and white base and can be tinted to any color.

Item No. 6100: Clear Base Item No. 6150: White Base

- A. For unpainted surfaces, apply two coats of **PERMASHIELD BASE** to create a pinhole free surface. Do not proceed to the **PREMIUM** topcoat if there are pinholes present after applying the **PERMASHIELD BASE**.
- B. For sound previously painted surfaces, apply one or two coats of **PERMASHIELD BASE** to maintain the natural look of the surface.

- C. **PERMASHIELD BASE** can be applied using a good quality roller, brush or airless sprayer with a tip size of .013-.017 inch. The estimated coverage rate is approximately 200 - 250 square feet per gallon, resulting in 2-3 dry mils thickness per coat (4-6 dry mils for 2 coats).
- D. Allow 1-3 hours dry time prior to applying the second coat. Apply the second coat after the milky-ness of the first coat clears. Allow 24 hours dry time before applying **PERMASHIELD PREMIUM** top coat.
- E. Do not proceed to the **PERMASHIELD PREMIUM** topcoat until the surface is pinhole free.

TOP COAT: PERMASHIELD PREMIUM

PERMASHIELD PREMIUM is a clear 2-component, water base, aliphatic polyurethane top coat available in clear matte or clear gloss. **PERMASHIELD PREMIUM** must be applied to a pin-hole free surface.

MIXING INSTRUCTIONS:

- A. **PERMASHIELD PREMIUM** clear gloss or matte finish is a water based, 2-component aliphatic polyurethane top coat.
- B. Stir Part A only before blending. Do not stir Part B.
- C. Add Part B to Part A (already stirred); use an electric mixer to blend the two parts. Scrape all the Part B out of the can. Mix for 2 to 3 minutes. No partial mixing.
- D. The pot life of the mixture is 1 to 2 hours, depending on temperature.
- E. Discard the unused mixture after 2 hours.
- F. Do not blend new mixture with the old.

APPLICATION PRECAUTIONS:

- **CAUTION!** Do not apply thicker than 6 wet mils thickness to avoid micro blistering.
- In all applications, we require doing a test section to determine the compatibility, adhesion, spread rates and appearance. All surfaces must be tested and approved by architect or project owner prior to doing the complete project.
- Do not apply to surfaces containing 15% or higher moisture content or hydrostatic pressure.
- Air and surface temperatures must be between 50°F. and 90°F during application.
- Sprinklers that come into contact with the application must be turned off for at least two days prior to and two days after application to maximize the life of the application. Redirect the sprinklers so they do not make contact with the coatings.
- Do not apply in windy conditions.
- Do not apply to surfaces displaying a pH over 8.
- Protect the surrounding areas from overspray.
- Do not apply if rain is imminent within 48 hours.
- For application over previously painted surfaces, allow the paint to fully cure (at least 7-14 days; consult the paint's technical data sheet for exact cure time) before applying **PERMASHIELD PREMIUM**. Refer to "Caution" section on page 4.



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