

MOISTURE VAPOR BARRIER®



2-Part, 100% Solids, Moisture & pH Barrier

MADE IN U.S.A.

PRODUCT DESCRIPTION:

ITEM NO. 2125

MONOCHEM MOISTURE VAPOR BARRIER is a two component, 100% solids, solvent free epoxy primer designed for superior moisture vapor transmission control. It is capable of reducing the hydrostatic pressure emitted by concrete from 15 lbs/1000 square feet to less than 1 lb. (<0.05perms). The presence of high moisture vapor emissions in concrete substrates should not exceed 3.0/lbs of moisture per 1000 sq/ft area within 24 hours, otherwise, it will adversely affect the adhesion of most conventional floor coverings and coatings.

The **MOISTURE VAPOR BARRIER** can eliminate the risk of coating failure due to high moisture vapor emissions. It is suitable for concrete and a variety of floor coverings such as vinyl, tiles, sheeting, carpet, hardwood, and as a primer for urethanes, epoxies and traffic membranes. It is an ideal primer for damp areas, high moisture emitting surfaces and for below grade applications.

FEATURES:

- Low VOC, ZERO HAP's
- Exceeds ASTM F3010 and ASTM E96 Standards
- Superior Adhesion to Concrete
- Excellent Adhesion to Damp Substrates
- High Alkalinity Barrier (pH 14)
- Superior Salt Water Resistance
- Excellent Abrasion Resistance
- Excellent Physical Properties
- Excellent Primer/Top Coat
- High Chemical Resistance
- Functions as Negative Side Waterproofing
- Outstanding Stability at Low Temperatures
- Suitable for use in USDA Inspected Facilities

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

TYPICAL AREAS OF APPLICATION:

- Concrete Slabs On-Grade or Below-Grade such as:
- Industrial/Retail Facilities
 - Running Tracks (Indoor/Outdoor)
 - Residential Slabs
 - One week old Concrete Slabs
 - Concrete Slabs with Excessive Moisture content to receive a flooring or coating
 - Hospitals and Schools
 - Warehouses
 - Hangars
 - Office Buildings

COLOR:

Clear and custom made colors.

PACKAGING:

2:1 Mixing Ratio:

#2125-03 3 Gallon Kit: 2 Gallon Part A : 1 Gallon Part B

#2125-96OZ: 96-Ounce Kit: 64 Ounce Part A : 32 Ounce Part B

TECHNICAL DATA:

Composition.....	2-Component, Solvent Free, 100% Epoxy
Solids by Weight (ASTM D-2369).....	100%
Solids by Volume.....	100%
VOC.....	<15 g/L
Viscosity @ 75°F. (Mixed).....	75-80 KU's
Pot Life @ 75°F.....	35-40 Minutes
Coverage.....	100-320 Sq/Ft/Gal
Dry Film Thickness Per Coat.....	5-16 Dry Mills
Recommended DFT (1 Coat) to suppress MVT of 12-16 Lbs.....	16 Dry Mills
Color.....	Clear and Choice of Colors
Finish.....	Gloss
Minimum Re-Coat Time @ 77°F.....	6-8 Hours
Maximum Re-Coat Time @ 77°F.....	24 Hours
Dry Hard @ 77°F.....	24 Hours
Open to Foot Traffic.....	24 Hours
Tensile Strength (ASTM D638).....	6100 PSI
Tensile Elongation (ASTM D638).....	3.2%
Compressive Strength & Yield (ASTM D695).....	12,500 PSI
Flexural Strength (ASTM D790).....	15,900 PSI
Shore D Hardness (ASTM D2240).....	83
Adhesion, Elcometer (ASTM D4541).....	>480 PSI
Adhesion to Concrete, 10 Day cure @23°C (ASTM D7234).....	>300 PSI (Bulk Concrete Failure)
Moisture Vapor Transmission (ASTM E96, Wet Method)	
Permeance; (grains/hr/ft²/in.Hg)	
16 Mills.....	0.05 perms
14 Mills.....	0.062 perms
10 Mills.....	0.1 perms
Alkali Resistance Ph 14 (ASTM D130).....	Pass 14 Day Test
Microbial Resistance (ASTM G21).....	Pass

LIMITATIONS:

- NOT UV STABLE. Epoxies lose gloss, discolor and chalk in sunlight exposure. For Interior use only, unless protected by a pigmented U.V. resistant coatings such as **PERMASHIELD 200, PERMASHIELD 2000, MONOCHEM 610** or **PERMASHIELD 100**.
- Do not apply at temperature below 50° or above 90°F.
- Concrete must be cured for a minimum of 10 days and have vapor emissions of less than 15 lbs/1000 square feet, within 24 hours.
- MONOCHEM MOISTURE VAPOR BARRIER** must be cured for a minimum of 24 hours prior to exposure to water.
- Concrete must be clean, free of paint or sealers and must be a minimum of 2500 psi.

COVERAGE RATES:

Theoretical Square Feet Per Gallon is totally dependent on substrate texture and condition as well as the moisture vapor transmission levels. Recommended Coverage Rate to suppress moisture vapor transmission of 12-16 pounds: 100 square feet per gallon.

Square Footage	Dry Mills
320	5
160	10
120	15
100	16
80	20
60	30

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**HIGH PERFORMANCE PRIMER 09900
PROTECTIVE COATINGS**

**MONOPOLE INC.
UPDATED AUGUST 2018**



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SURFACE PREPARATION:

- A. The surface can be damp (no standing water) or dry. It must be clean, free from all dirt, dust, oil, grease, wax, paint, curing agents or any contaminants that may inhibit proper adhesion of the coating. Note: Concrete can be fresh with a minimum of 10-14 days cure time.
- B. Concrete substrates should be prepared using standard methods such as steam cleaning to remove surface contaminants such as oils, fats, greases, waxes, sealers, paints, etc. Alkaline surface residue and laitance can be removed with a mechanical method such as shot blasting, grinding, bead blasting, diamond grinding, acid etching, track blasting, degreasing, solvent stripping, etc.
- C. After the surface has been clean and is dry, shot blast using a 50/50 blend of 280/330 shot to achieve a CSP 3-4 profile (texture similar to 60-80 grit sandpaper).
- D. All expansion joints should be filled with **MONO-CAULK Polyurea Joint Filler**.
- E. It is the responsibility of the end user to identify which methods are suitable for concrete preparation given the specific conditions of the substrate and environment for application. Failure to adhere to these guidelines can result in product delamination, discoloration, blistering, etc. Testing is the responsibility of the applicator. Monopole bears no responsibility for failures due to any of the above conditions.

MIXING:

Mix 2 parts A with 1 part B (by volume) for 3-4 minutes with a slow speed drill mixer. Do not dilute or alter mixture ratios. The mixed materials will have approximately 30-45 minutes of working time, depending on the temperature and humidity. Avoid entrapping excessive air into the blend when using high speed agitation. Apply the material immediately after mixing.

APPLICATION:

Apply **MOISTURE VAPOR BARRIER** to the substrate with a notched squeegee, broom or any other proficient means. Roll the materials immediately with a 3/8" nap roller. Allow to cure a minimum of 24 hours.

MOISTURE VAPOR BARRIER is a high solids coating and may require adjustments in spray techniques. Use "cross spray" application procedure. Move the gun fast enough to avoid runs or sags.

Spray Equipment: Conventional Spray-DeVilbis, Binks and Graco are suitable. Pressure pot equipped with dual regulators, 3/8" I.D. minimum material hose, 070" I.D. fluid tip and appropriate air cap.

Airless Spray: Pump ratio: 30:1 (min)*. GPM Output: 3.0 (min). Material Hose: 3/8" I.D. (min). Tip Size: .017"-0.21". Output PSI: 2100-2300. Filter Size: 60 mesh.
*Teflon material.

- Brush, Roller or Squeegee:** Use a pure bristle. Avoid nylon. Use a short-nap 3/8" synthetic roller with a phenolic core.
- Multiple coats may be required to obtain desired appearance. Avoid excessive re-brushing or re-rolling.
 - Excessive humidity or condensation on the surface during curing can interfere with the cure and can cause discoloration and may result in surface haze or blush. Haze or blushing MUST be removed by water washing before recoating.
 - Higher film thickness, cooler temperature will require longer cure times and could result in solvent entrapment and premature failure.
 - Recoat in approximately 6-8 hours. At lower temperature, it might extend to 18-24 hours.
 - If the maximum recoat time has been exceeded, the surface must be abraded by sweep blasting or sanding prior to the application of additional coats.

APPLICATION NOTE: When used as a top coat, a second coat is recommended.

APPLICATION CONDITIONS:

Normal Application: (60°-85°F., Humidity 0-80%)
Minimum Application: (50°F., Humidity 0%)
Maximum Application: (90°F., Humidity 80%)

DRY TIMES:

Surface Temp. & 50% RH	Dry to Touch	Dry To Recoat	Max Recoat	Final Cure
75°F	4-6 Hours	6-8 Hours	24 Hours	1 Day

HANDLING PRECAUTIONS:

Applicators should wear protective clothing and gloves. Wear properly fitted NIOSH/MSHA approved respirators. Avoid contact of the material with skin or eyes and avoid breathing vapors. Mix and apply in a well ventilated area and observe normal safety precautions.

CLEANUP & SAFETY: Use Acetone. In case of spillage, absorb and dispose of in accordance with local applicable regulations.

STORAGE:

40-110 °F. Store indoors.

SHELF LIFE:

Part A: 24 Months at 75° F. Part B: 16 Months at 75° F.

APPLICATION: (Do Not Apply to Visible Moisture)

WARRANTY INFORMATION: All the recommended products will mirror the performance and soundness of the structure, previous coatings and filling/patching (repair) materials. For an ideal application, we recommend removing the existing coatings. If this is not an option, remove all unsound, loose and/or poorly adhering paint and conduct thorough test patches. Delamination or the failure of the existing/non Monopole coatings is not covered by any performance warranty. 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.