



# PERMASHIELD 100



**MONOPOLE INC.**  
Manufacturer of  
U.S. SPECIALTY COATINGS

**PERMASHIELD 100** is a one-component, water-based, cross-linked acrylic/urethane coating. It exhibits outstanding resistance to harsh environmental conditions, and has exceptional film hardness. **PERMASHIELD 100** is elastomeric and displays superior resistance to impacts, abrasion, corrosion, UV exposure, hot tire pick-up and household stains and chemicals.

#### BASIC USES:

**PERMASHIELD 100** can be used for interior or exterior, horizontal or vertical, painted or unpainted applications. **PERMASHIELD 100** is an excellent choice for products where odor for the finished system is a concern. It can be used on various surfaces such as concrete, masonry, wood, prepared metal, etc.

#### COMMON APPLICATIONS:

- House Siding
- Wood Trim
- Walkways
- Parapet Walls
- Primed Metals
- Doors and Doorways
- Interior/Exterior Walls
- Top coat for Elevated Decks - System 330

#### FEATURES:

- Universally Compliant
- Anti-Microbial
- USDA Acceptable
- Available in Clear, Semi-Gloss & Low-Gloss
- Available in Colors, Semi-Gloss, Low-Gloss & Eggshell
- Superior Block Resistance and Film Hardness
- Outstanding Resistance to Dirt Pick-up, Staining & Scrubbing
- Excellent Scrub Resistance and Adhesion
- Resistant to Chemicals including Chlorine
- Hot Tire and UV Resistant

*\*Antimicrobial properties built in to protect Permashield 100 provide mold and mildew-resistance to the dried film.*

*\*Permashield 100 conforms to the USDA-FSIS regulatory sanitation performance standards for coatings in contact with food establishment facilities.*

#### PACKAGING:

**PERMASHIELD 100** is one-component and packaged in a Clear/ Neutral base or white base. It may be tinted with universal colorants to match any color.

#### Clear/ Neutral Base - Short-Fill: 8 Ounces per gallon

ITEM NO. 5450 Semi-Gloss  
ITEM NO. 5460 Low-Gloss  
ITEM NO. 5420 Matte

#### White Base - Short-Fill: 2 Ounces per gallon

ITEM NO. 5455 Semi-Gloss  
ITEM NO. 5445 Low-Gloss  
ITEM NO. 5430 Matte

#### PHYSICAL PROPERTIES

**Composition:** Water Base Acrylic-Urethane

**VOC:** < 50 g/L

**White Base Weight Solids:** 43% ±1

**White Base Volume Solids:** 34%

**Neutral Base Weight Solids:** 32% ±2

**Neutral Base Volume Solids:** 31%

**Weight per Gallon:** White Base: 10 Lbs; Neutral: 9 Lbs

**Finish:** Matte: 10°; Low-Gloss: 30°; Semi-Gloss: 60°

**Viscosity:** 95-102 Kus

**Coverage:** 250-375 Sq. Ft per Gallon

Recommended Dry Mills: 1 - 2

Recommended Wet Mills: 3 - 5

Always apply a test patch to check for adhesion, compatibility and proper results.

**Drying Time @77° and 50% Relative Humidity:**

Dry To Touch: 2 Hours

Recoat Time: 2-3 Hours

Cooler Temperature, higher humidity and film thickness will require longer drying time.

**Shelf Life:** 18 Months

#### PREPARATION:

Surface preparation is critical to product performance. The surface must be dry and clean, free from all adhesion affecting contaminants like dirt, dust, oil, grease, wax, loose materials, etc.

#### PRIMERS:

**PERMASHIELD 100** is self-priming when applied directly over unsealed porous surfaces (180 grit surface texture), however if a primer is needed, we recommend the use of:

**MONOBOND:** Difficult to adhere to substrates including non-porous concrete, wood, metal (non-ferrous), glazes and all masonry surfaces.

**MONOBOND RI:** A Rust Inhibitive Primer for DTM

**MONOCHEM 21:** For horizontal application over porous or non-porous, oil or water base, painted or unpainted concrete deck and floor surfaces.

**AQUAPRIME:** Multi-surface PVA primer including surfaces with a pH over 13.

## PREVIOUSLY PAINTED CONCRETE SURFACES:

### ACRYLIC PAINT:

Remove all loose, peeling or poorly bonded paint. Surfaces must be mechanically cleaned and abraded, using 60-80 grit sandpaper. Dull glossy surfaces by sanding or using a chemical deglosser. Then clean the surface by scrub washing with a solution of ½ cup TSP to one gallon of warm water. Pay special attention to areas where build-ups of dirt, grease and oil exist. These areas should be scrubbed clean.

### OIL BASED PAINT:

Over non-porous, oil based painted surfaces, and unknown existing coatings, **MONOCHEM 21** Epoxy Primer is required. **MONOCHEM 21** primer has excellent adhesion when applied over oil base, solvent base, and water base coatings. A test patch to a clean contaminant free coating is required to ensure the proper adhesion and performance. If **MONOCHEM 21** isn't used, then remove all chlorinated rubber and solvent based finishes such as oil based enamels, epoxies, urethanes, etc. by sandblasting, sanding or bead blasting prior to product application.

### UNPAINTED CONCRETE SURFACES:

Concrete surfaces to receive **PERMASHIELD 100** must be porous, structurally sound, cured for a minimum of four weeks, dry for 48 hours (< 15% moisture), free from rock pockets, voids, cracks, etc. (larger than 1/16"). Dense, non-porous concrete should be primed with **MONOBOND** or **MONOCHEM 21** or sandblasted, shot blasted, or acid etched (to create 180 grit surface profile) for proper penetration and adhesion.

### UNPAINTED METAL SURFACES:

All rust and contaminants must be removed by lightly blasting with fine abrasives or by conducting a light etching. To minimize rust formation in areas where rust has previously formed, we require applying a rust inhibitive metal primer, like **MONBOND RI**, within 3-6 hours after preparing the surface.

### METAL SURFACES:

**Non Ferrous (galvanized, aluminum, stainless steel):** Remove all oils or films with a neutral detergent or emulsion cleaner. Blast lightly with fine abrasives or conduct a light etching. Then rinse using a Zinc treatment and apply **PERMASHIELD 100** within 3-6 hours to avoid oxidation.

**Corrosive Metals:** Remove all the adhesion affecting rust, dirt, grease and other contaminants by one of the following depending on the degree of cleanliness required: Blast SSPC-SP3; SSPC-SP2; SSPC-SP6; SSPC-SP7. Blasting lightly with fine abrasives or conducting a light etching are also options. Then prime with a rust inhibitive primer within 3-6 hours.

### WOOD SURFACES:

Sand wood to a rough finish to provide "tooth" for the coating. We require sealing all weather exposed sides of the wood to prevent moisture penetration into the wood and hydrostatic pressure. The moisture content of the wood must be 13% or lower.

Some woods, such as redwood, pine, and cedar contain tannin acid. **PERMASHIELD 100** will not stop tannin acid or bleeding from wood. We require using a water-based premium grade stain blocker/primer before applying **PERMASHIELD 100** for these specific applications.

Contact Monopole, Inc. Technical Department for elevated wood deck applications to see if a membrane (EX: System 330) is needed.

## APPLICATION AND COVERAGE:

**PERMASHIELD 100** can be applied by roller, brush or airless sprayer. Recommended Tip Size: 513. The coverage varies depending on the texture and condition of the substrate. Apply at an approximate rate of 250-375 sq. ft. per gallon to yield 1 to 2-dry mils of thickness. Surface and air temperatures must be between 50°F and 90°F during application.

### DRY TIMES:

•**Recoat:** 2-3 Hours between coats

A second coat is always recommended for increased durability and proper hide.

•**Light Foot Traffic:** 4-5 Hours

•**Full Foot Traffic:** 24 Hours

•**Heavy Objects & Hot Tire Exposure:** 4-5 Days

ALWAYS apply a test patch to check for adhesion, compatibility and proper results. Responsibility for determining the adhesion and performance of **PERMASHIELD 100** to an existing finish rests with the applicator.

### •WHEN NOT TO USE PERMASHIELD 100:

•Do not apply over poorly-bonded previous paint.

•Do not apply if moisture in the substrate is higher than 15%.

•Do not apply to a poorly cured or dusty concrete.

•Do not apply to a surface exhibiting hydrostatic pressure.

•Do not apply if surface temperature is over 90°F or below 50°F.

•Do not apply during windy conditions or if rain is eminent within 24 hours.

•Do not apply to surfaces with a pH over 9.

### CLEAN UP:

Clean all tools and equipment immediately after use with soap and water.

**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.