

MONOCHEM

MONOCHEM 310[®]

TECHNICAL BULLETIN



GREEN 100% Solids, Urethane Waterproof Base Membrane



MADE IN U.S.A.

PRODUCT DESCRIPTION:

ITEM NO. 1310

MONOCHEM 310 is a single component moisture-cured polyurethane elastomer. It is designed to coat concrete and plywood decks which are to be top coated, or covered with wood, tile, or outdoor carpeting. It is also designed to provide the ultimate in elongation as well as waterproofing properties.

MONOCHEM 310 is the principal waterproofing base membrane used in **MONOCHEM** Decking Systems. When **MONOCHEM 310** is incorporated into these systems, it waterproofs, and provides a thick, seamless, elastomeric membrane with 600% elongation for protection against water damage.

PREPARATION:

All surfaces to be coated must be thoroughly dry and free of adhesion affecting contaminants like oils, greases, concrete hardeners, paint and dirt. All the joints, holes, cracks, etc larger than 1/16" should be caulked with a paintable polyurethane elastomeric sealant. The surface moisture content must be below 15% for cementitious surfaces and below 13% for wood surfaces.

PRECAUTION:

MONOCHEM 310 should only be used as a base membrane. The components of **MONOCHEM 310** are not UV stable and are not designed to withstand direct wear/abrasion.

Containers that have been opened must be used because the **MONOCHEM 310** is a moisture reactive material which begins to dry when exposed to air.

APPLICATION: (Use as is. Do not dilute)

Each application should be done in one complete step. A continuous application will ensure a smooth and level coat with no lines or streaks to disfigure the surface.

Mixing: Prior to applying **MONOCHEM 310** make sure to mix the product thoroughly for 2-3 minutes using a mechanical mixer (ex. Jiffy Mixer) at slow speeds. Mixing by hand for 5 minutes is also an option. Make sure to keep mixing the product until a homogenous mixture and color is achieved. Avoid trapping air into the product while mixing.

MONOCHEM 310 is a critical component to the 5 & 10 year warranted **SYSTEM 200** which is broken down in the following four phases:

PHASE 1:

- All surfaces must be primed with **MONOCHEM 21** prior to the application of **MONOCHEM 310**. Apply **MONOCHEM 21** at a rate of 200-300 sq. ft./gallon or 3 mils.
- Allow to dry for 3-6 hours (do not exceed 14 hours) before applying the **MONOCHEM 310**. It is important to apply the base coat to the primer while the primer is still slightly tacky but not wet enough to leave a fingerprint.

TECHNICAL DATA:

Solids by weight	100% (ASTM D2369)
Solids by volume	100% (ASTM D2697)
Weight per pail	56 Lbs.
Viscosity	6000 ±1500 cps.
Hardness, Shore A	55 (ASTM D2240)
Tensile Strength	650 psi (ASTM D412)
Adhesion to primed concrete	100 PLI (ASTM D903-49)
Ultimate Elongation	600% (ASTM D412)
Moisture Vapor Transmission	0.90 perms (E96)
Shrinkage	None (TT-S-227E)
Tear Resistance, Die C220 pli (ASTM D624)
VOC	100 g/L
Color	Gray
Dry Mil Thickness per coat @ one gal/100 sq. ft.	16 dry mils

PHASE 2:

- Apply the first coat of **MONOCHEM 310** at a rate of 100 sq/ft/gallon resulting in 16 dry mils. Two coats are recommended.
- The recoat time should be between 16 to 24 hours (do not exceed 48 hours).
- **MONOCHEM 310** can be applied by a 1-1.25" long haired roller (best results), airless sprayer, or notched trowel. Extra care should be taken to prevent air bubbles. Applications should be at temperatures above 60°F and should not occur during foul weather.

PHASE 3:

- Apply the second coat of **MONOCHEM 310** at the rate of 100 sq/ft/gallon resulting in 16 dry mils.
- While this 2nd coat is wet, broadcast washed, dry, crystal silica sand size 20 or 16 until saturation (~12-15 pounds per 100 square feet). This is required and will create a non-skid application.

PHASE 4:

Apply one of the required following topcoats:

- MONOCHEM 610**
 - Thick moisture cured polyurethane.
 - Hot tire, chemical, UV resistant.
 - 1 coat is required for non-ramp areas.
 - 12 dry mils per coat.
 - Can be drive over in ~72 hours
- PERMASHIELD 2000**
 - Quick drying polyurea.
 - Hot tire, chemical, UV resistant.
 - 1 thick coat is required for non-ramp areas.
 - 10-12 dry mils per coat.
 - Can be drive over in 20-24 hours.
- PERMASHIELD 200**
 - Durable aliphatic polyurethane.
 - Hot tire, chemical, UV resistant.
 - Top tier chemical resistance and cleanability.

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MONOPOLE INC.
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MONOPOLE INC.

Manufacturer of
U.S. SPECIALTY COATINGS

4661 Alger Street • Los Angeles, CA 90039

Tel: 818-500-8585 • Fax: 818-502-0818

www.monopoleinc.com • Email: info@monopoleinc.com

- 2 coats are required for non-ramp areas.
- 2-3 dry mils per coat.
- Can be driven over in ~5 days.

RECOMMENDATIONS:

Allow **MONOCHEM 310** to cure for 24 hours before applying the topcoat. If more than 48 hours passes, the surface must be reprimed with **MONOCHEM 21**.

WHEN NOT TO USE MONOCHEM 310

- Do not apply over previously sealed surfaces.
- Do not apply over poorly-bonded paint.
- Do not apply if moisture in the substrate is higher than 15%.
- Do not apply to a poorly cured, dusty, contaminated, or unprimed concrete.
- Do not apply to surfaces exhibiting hydrostatic pressure.
- Do not apply if surface temperature is over 90°F. or below 55°F.
- Do not apply if surface pH level is above 8.
- Do not apply in windy conditions or if rain is expected within 24 hours.
- Do not apply to unsound substrates.

CLEAN UP:

The equipment should be cleaned immediately after use with an environmentally safe solvent, as permitted under local regulations.

SELF LIFE:

MONOCHEM 310 will remain usable for six months @ 72°F in an unopened container.

PACKAGING:

MONOCHEM 310 is packaged in 5 gallon pails.

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.