

MONOCHEM 300[®]

TECHNICAL BULLETIN



Elastomeric, Aromatic Base Membrane

MADE IN U.S.A.

9

HIGH PERFORMANCE COATING 09960
PROTECTIVE COATINGS

MONOPOLE INC.
UPDATED NOVEMBER 2017

PRODUCT DESCRIPTION:

MONOCHEM 300 is a single component, liquid applied, water-based elastomeric urethane waterproofing base membrane.

MONOCHEM 300 can be used as part of an elastomeric system designed to expand and contract with normal structural movements. It provides a thick monolithic film that is water-tight. This system will not soften in heat or become brittle in the cold.

MONOCHEM 300 is designed for use on wood, concrete, and masonry to provide a waterproof elastomeric base membrane. It can also be applied as a below grade waterproofing coating.

FEATURES:

- Single Component
- Waterproof
- Resistant to Bacterial Growth
- User Friendly
- Zero VOC
- Durable
- Elastomeric
- Labor Saving

TYPICAL USES:

- Concrete
- Masonry
- Wood/Metal
- Decks
- Walkways
- Stairways
- Bridges
- Tunnels
- Podiums
- Roof Terraces
- Foundation Walls
- Planter Boxes
- Between Slabs
- Planters
- Bathrooms
- Plaza Decks
- Basements
- Reflecting Pools

PACKAGING, COLORS AND SHELF-LIFE:

MONOCHEM 300 is packaged in one-gallon cans and five-gallon pails. **MONOCHEM 300** is usable for a one year period when stored at room temperature in the original sealed container. Keep from freezing.

MONOCHEM 300 is available in the following colors:

White Tint Base - Short Fill: 6 Oz./Gallon

1370-01 (1 Gallon Can) 1370-05 (5 Gallon Pail)

Clear Tint Base - Short-Fill: 8 Oz./Gallon

1300-01 (1 Gallon Can) 1300-05 (5 Gallon Pail)

Black

1330-01 (1 Gallon Can) 1330-05 (5 Gallon Pail)

Gray

1320-01 (1 Gallon Can) 1350-05 (5 Gallon Pail)

Tan

1350-01 (1 Gallon Can) 1350-05 (5 Gallon Pail)

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

TECHNICAL DATA:

Solids By Weight Clear (ASTM D2369)	40% ± 2
Solids By Weight Colors (ASTM D5201)	45% ± 2
Solids by Volume (ASTM D2397)	69% ± 2
Weight per Gallon	9.6 Lbs
VOC	Zero
Viscosity	100-105 KU
Tensile Strength (ASTM D638)	560 psi
Elongation (ASTM D638)	740%
Moisture Vapor Transmission (ASTM E96)	0.085
Adhesion:	
Primed Concrete	40 psi
Exterior Plywood	55 psi
Polyester Foam	12 psi

PREPARATION:

Surface preparation is critical to product performance.

DECK SYSTEM PREPARATION:

- All surfaces must be thoroughly dry and free from all adhesion affecting contamination including grease, oil, dirt, concrete hardeners and curing compounds.
- A primer (**MONOBOND** or **MONOCHEM 21**) and top coat (**DEX-COAT** or **PERMASHIELD 200**) is always required for **MONOCHEM 300** (unless it is a below grade application).
- Concrete should be cleaned thoroughly. Smooth concrete needs to be sandblasted or acid etched until a 120 grit sandpaper feel is achieved. Then rinse the surface thoroughly. Allow the surface at least 1-3 days of dry time until it is below 15% moisture.
- PREVIOUSLY PAINTED and smooth surfaces should be primed with **MONOCHEM 21** or abraded to a rough finish (120 grit sandpaper feel) to provide "bite" for the **MONOBOND**. Test for proper adhesion.
- Remove all loose or peeling paint.
- Vacuum Clean all dirt, dust, debris and adhesion affecting contaminants.
- Cementitious and wood surfaces require below 15% and 13% moisture respectively before applying the primer for **MONOCHEM 300**.
- All joints should be caulked with an elastomeric paintable sealant.
- Plywood/ wood should be screwed down tightly.

WATERPROOFING / BELOW GRADE PREPARATION:

Concrete Surfaces:

Bare concrete surfaces must be fully cured, porous, structurally sound and free from rock pockets, voids, holes, cracks larger than 1/16", etc.

Below Grade Application: No primer or top coat required.



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APPLICATION:

- Each application should be done in one continuous step to ensure a level coat. Applications should not be stopped halfway and completed later.
- **MONOCHEM 300** can be applied by roller or brush. Extra care should be taken to prevent air bubbles.
- Do not dilute the material.
- Apply at temperatures between 60°F and 90°F. Do not apply if rain is expected within 24-hours.
- Ensure an adequate slope of 1/4" per foot to protect against the damaging effects of puddling.
- Apply at a rate of approximately 100 square feet per gallon resulting in 8 to 9 dry mils of thickness per coat.
- Two coats are recommended for a total of 16 to 18 dry mils of thickness.
- Allow the 1st coat to dry for approximately 4 hours, then apply a 2nd coat. Do not exceed 24 hours between coats.
- Protect all exposed membrane surfaces by installing a protection board, making sure to butt edges together.
- When using **MONOCHEM 300** as a base membrane for a non-skid (textured finish) decking system, broadcast Silica Sand #60, #30 or #20 onto the second coat immediately after applying while the material is still wet. Then allow 24-hours of dry time and sweep off excess sand prior to applying the topcoat.
- Any remaining material must be tightly sealed in its original container to prevent drying.

REQUIRED PRIMERS:

• **MONOCHEM 21:** 100% solids high performance epoxy primer. It adheres to non-porous surfaces and almost all existing coatings: water/oil/solvent/alkyd/unknown coatings, glazes.

• **MONOBOND:** Urethane-Modified Acrylic ideal for top coating acrylic coatings or porous properly prepared surfaces.

REQUIRED TOP COATS:

• **DEX-COAT** (1-Year Warranty): 1 component, easy maintenance acrylic topcoat.

• **PERMASHIELD 200** (3-Year Warranty): 2 component durable aliphatic polyurethane. Displays top tier chemical, hot tire, abrasion, UV and staining resistance.

LIMITATIONS:

• **MONOCHEM 300** should only be used as a base membrane that requires a primer and top coat.

• Prior to the application of the topcoat, broadcast silica sand #20, #30 or #60 onto the wet final coat of **MONOCHEM 300**. It is not UV stable or designed to withstand direct wear; therefore, it has to be top coated with an acrylic or polyurethane coating.

PRECAUTION:

Mix and apply in well ventilated areas. Personnel applying the coating should wear protective clothing and gloves. Avoid material contact with skin and eyes and avoid breathing vapors. Observe normal safety precautions.

CLEAN UP:

Wash tools and equipment with soap and water immediately after use.

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 Seller be liable for any loss of profits or other consequential damages. Under no circumstance will MONOPOLE pay labor charges.