

# Waterproof Membrane



## Technical Data Sheet

*Helix Color Systems is a premier line of specialty decorative concrete admixtures manufactured by ChemSystems Inc. Helix Color Systems is manufactured for the discriminating installer or designer who values service and quality. Specializing in custom colors, specialty products, and superior service, Helix Color Systems offers an innovative alternative in the decorative concrete industry.*

### Description

Waterproof Membrane is a unique polymer emulsion waterproofing compound designed for use where waterproofing and crack isolation is required. It is recommended for use between bonded or un-bonded topping slabs where slab cracking and movement is a problem. It may be used beneath ceramic tile, marble, quarry tile, below grade, between slab and under composition floors and decks.

Waterproof Membrane is based on styrene butadiene latex that dries to form a tough, water and vapor resistant film. Waterproof Membrane is non-toxic, water-based, environmentally friendly and does not contain any solvent. Testing have established that Waterproof Membrane will remain pliable at temperatures as low as -15 °F and still maintain its crack bridging properties. This makes it an excellent choice for exterior applications in cold climates.

### Product Benefits

- Forms a monolithic, tightly adhering, molded membrane
- Environmentally safe, water based formulation
- Zero VOC – SCAQMD compliant
- Reduces reflective cracking caused by substrate movement
- Mild odor for interior applications
- Thin section does not interfere with building elevations
- Easily applied to irregular shapes
- Relatively quick drying

### Pre-Application

1. Before applying product, test in an inconspicuous area for desired results. For any questions regarding application, contact ChemSystems, Inc.
2. Prepare surfaces by removal of laitance, grease, and foreign matter, etc. Repair damaged concrete or provides sloping using a repair mortar or underlayment. Prime with Waterproof Membrane, cut 50% with water. Allow to dry.
3. Apply Waterproof Membrane to thickness sufficient to produce 25 mils d.f.t., 12.5 mils dry per coat, two coats (incorporate fabric reinforcement as option for thickness of 30 mils).
4. Apply cementitious coating protection course (optional). Conduct water test of finished installation.
5. Optional thickener additive available for vertical applications
6. Not recommended for application over expansion joints or seismic joints.
7. All loose or unsound concrete must be removed and repaired

### Application

1. Applied by roller, trowel, spray or squeegee, Waterproof Membrane offers water protection together with excellent adhesion and is more resistant to impact than most membranes. It is applied to floors and molded up onto bases, over curbs, etc. without the use of any adhesive other than its own composition.
2. Among the surfaces Waterproof Membrane can cover are concrete, tile and metal. For wood surfaces, consult ChemSystems, Inc.

### Surface Protection and Maintenance

- Protect materials from excessive heat and cold and regularly check wet film thickness with mil gauge and monitor consumption to ensure correct application thicknesses and rate are obtained.
- For maximum sheen and cleanliness, floor should be routinely treated with conventional maintenance finish followed by ordinary buffing

### Coverage Rates

**Coverage Rates** – Actual coverage may vary depending on the texture, age and condition of the concrete, the application method and other local conditions.

- 64 square feet per gallon
- 25 mils Wet Film Thickness (WFT)
- 12.5 mils Dry Film Thickness (DFT)

Note: Fabric coverage adjustment requires 20% more Waterproof Membrane.

### Package Sizes

Waterproof Membrane is available in 5 gallon pails.

### Technical Data

Please refer to the corresponding SDS for hazard-related information.

**Waterproofness**..... No passage of water  
Resistance to passage when subjected to 27.7” head of Water (hydrostatic pressure of 1 lb/ft) for one month.

**Elongation:** ASTM D638 .....580%

**Tensile Strength:** ASTM D638..... 345 psi

**Bacteria & Fungus Resistance:** ASTM G21 ..... Passes Rating 2

**Adhesion in Peel to Concrete:** ..... 8.3 lbs/in width

**Moisture Vapor Transmission:** ASTM E96 ..... 2.04g (Grams/sq. meter/24 hrs)

**Crack-Bridging:** ASTM E836 - 1/8” opening @ 77°F..... Pass (No rupture)

**Hydrostatic Resistance:** ASTM D751 - Procedure B ..... Passes

**Permeability:** ASTM E96 ..... 0.013 perm/inches

**VOC**..... 6 g/L

**Cold Temperature Flexibility:** May be folded double, maintains stretch-ability when immediately removed from freezer.

### Product Handling

For complete instructions on handling and use, consult the corresponding Material Safety Data Sheet before using product.

### Warranty

Waterproof Membrane a proprietary product, is warranted to be of uniform quality within manufacturing tolerances. Since control is not exercised over its use, no warranty, expressed or implied, is made as to the effects of such use. Seller's and manufacturer's obligation under this warranty shall be limited to refunding the purchase price of that portion of the material proven to be defective. The user assumes all other risks and liabilities resulting from use of this product. If you have any questions, please contact ChemSystems, Inc.



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\*For complete information on all CSI products—including product information catalogs, product brochures, color charts, technical specifications, sales aids and more—contact ChemSystems, Inc.

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