



# MiraFlex Liquid Membrane

## Product Technical Data Sheet

*MiraFlex Liquid Membrane* is a single-component, copolymer emulsion waterproofing membrane with exceptional elongation properties and versatility in a wide range of waterproofing applications. These include pedestrian traffic systems, under tile flooring, sandwich slab construction, and under several types of MiraFlex waterproofing systems,

For detailing and treatment of cracks and construction joints, *MiraFlex Liquid Membrane* can be applied over *MiraFlex Seam Tape* or embedded with *Miracote Poly Fabric*, or *Poly Fabric Ultra* for reinforcement and enhanced dimensional stability.

### WHERE TO USE

- Waterproofing membrane layer under composition floors.
- Under tile, including ceramic, glass, marble, quarry, etc.
- Mechanical equipment and utility room flooring.
- Waterproofing for computer/data center raised access flooring.
- Below grade and split slab waterproofing applications.
- Secondary containment, elevator pits.
- Water and wastewater facility structures
- Crack isolation/waterproofing under Miracote flooring systems.
- Waterproofing layer for MiraFlex Decking Systems.

### ADVANTAGES

- Forms a monolithic, tightly adhering watertight membrane.
- Excellent viscosity for both horizontal and vertical surfaces.
- Permanent high flexibility – does not age harden.
- Provides positive side waterproofing.
- Unlike sheet membranes, easily applied over irregular shapes.
- Does not contain organic solvents.
- Quick drying – dry to touch in 1-2 hours, fully dry in 12 hours.
- Crack isolation – reduces potential for reflective cracking.
- Compatible with cementitious thin-set mortars.
- Green technology – environmentally friendly, LEED-compliant.
- Odorless technology

### THEORETICAL COVERAGE RATES

64 sq. ft./gal

25 mils WFT

12.5 mils DFT

50 sq. ft./gal when applied over Miracote Poly Fabric

32 mils WFT

16 mils DFT

Actual consumption rates are dependent on many factors including, but not limited to, substrate texture and porosity, variations in applied thickness and normal allowance for waste.

### PACKAGING and COLORS

1-gallon can : 5-gallon pail

Standard Color - Black

### MIX RATIO

Single Component - Thoroughly mix prior to use.

### SHELF LIFE AND STORAGE

One year from the date of manufacture provided containers remain unopened and material is stored in a protected environment free from moisture, excessive heat, freezing temperatures, and direct sunlight.

### TYPICAL PHYSICAL PROPERTIES @ 75°F (24°C)

**Solids Content** ..... 50%

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

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

**Microbial Resistance** ASTM G21 ..... Passes Rating 2

**Adhesion in Peel to Concrete** ASTM C794 ..... 8.3 lbs.

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

**Crack-Bridging** ASTM E836, 1/8" opening ..... (No rupture)

**Hydrostatic Resistance** ASTM D751 ..... Passes

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

**VOC** 40 CFR 60, Appendix A-7, Method 24 ..... 9 g/L

#### **Cold Temperature Flexibility**

May be folded double, maintains excellent elongation when immediately removed from freezer.

### OVERVIEW OF INSTALLATION STEPS

- **Surface Preparation** – All surfaces must be clean, sound, and free from bug holes, pop outs, voids, discontinuities, mortar fins, and any bond inhibiting substances including, but not limited to, grease, oil and any other contaminants or loosely adhered materials. For concrete substrates, a minimum surface profile of a CSP-3 to CSP-5 is required depending on overall substrate conditions and coating requirements. Repair any existing concrete surface defects previously noted with the appropriate MiraPatch repair mortar. Concrete and other porous or absorptive substrates should be (SSD) saturated surface dry with no standing water at the time of application.

- **Mixing** – Prior to use, *MiraFlex Liquid Membrane* must be mixed briefly with low-speed drill (300-450 rpm) and “Jiffy-type” or similar mixing paddle to re-disperse any polymer solids that may have settled on the bottom of the pail.

- **Application** – *MiraFlex Liquid Membrane A* can be applied using a roller, brush, notched squeegee or trowel. Apply only on properly prepared substrates, and be sure that all bug holes, pop outs, and other discontinuities have been rendered with appropriate MiraPatch mortar. Apply *MiraFlex Liquid Membrane* at a rate of 64 sq. ft. per gallon or approximately 25 mils per coat which presumes a relatively smooth surface profile. For waterproofing applications, a minimum of two coats is required.

#### **For Reinforcement with Miracote Poly Fabric -**

Apply the first coat of *MiraFlex Liquid Membrane* at the rate of 64 sq. ft. per gallon with a 6” turn up at all vertical transitions. Immediately embed Miracote Poly Fabric into the wet *MiraFlex Liquid Membrane* ensuring that the fabric thoroughly settles into and is encapsulated by the freshly applied membrane.

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### OVERVIEW OF INSTALLATION STEPS (continued)

Carefully smooth out any wrinkles in the fabric with a stainless steel trowel or another suitable tool. After approximately 2 hours, apply a second coat at a rate of 50 sq. ft. per gallon per gallon over the Miracote Poly Fabric to encapsulate and weld all three layers together as one.

### FOR BEST RESULTS

- Always install a minimum 4' by 4' test area site mock-up for approval of acceptable color, texture, finish, adhesion, and any other critical requirement acceptable to the owner prior to proceeding with the installation.
- Verify and download current versions of product technical data sheets (PTDS), material safety data sheets (MSDS), and installation guides (IG) at [www.miracote.com](http://www.miracote.com).
- Always protect materials from excessive heat and cold, and pre-condition to room temperature with a minimum 60°F as required.
- Regularly check wet film thickness with mil gauge and monitor consumption to ensure correct application rates are obtained.
- The proper application of this product is the sole responsibility of the end user. Job site visits by Miracote representatives are only for observing and making recommendations, and do not assume any liability for supervision, application, or quality control.
- Measure surface and ambient temperatures to ensure the material is only applied when both temperatures range between 55°F (12.8°C) and 90°F (32.2°C) during mixing and time of application.
- Allow to cure for three days prior to full water immersion service.
- Do not subject cured *MiraFlex Liquid Membrane* to UV exposure for more than 24 hours. For protection apply one or two finish coats of *Miracote MPC*. Consult a local Miracote local sales representative or technical service for other alternative protective measures.

### LIMITATIONS

- Avoid application when rain is anticipated, or immediately after long periods of heavy rain. Allow concrete to dry thoroughly. Perform plastic sheet test to verify, if necessary.
- Minimum and maximum ambient/substrate temperatures of 55°F (12.8°C) and rising, and 90°F (32.2°C) and falling, respectively.
- Do not apply on exterior, on-grade concrete substrates.
- Concrete structures or elements containing hydrophobic crystalline admixtures may result in substrates that will be difficult to produce acceptable adhesion. Perform in-situ pull-off testing to verify suitable and measurable tensile bond strengths.
- Use extreme caution when resurfacing scaled concrete surfaces in freeze-thaw zones due to the potential for insufficient air-entrainment. These types of unsound surfaces may continue to scale at the bond line due to internal moisture content and freeze/thaw cycles.
- Allow *MiraFlex Liquid Membrane* to cure for a minimum of 3 days prior to performing leak testing utilizing water methods.

### LIMITED WARRANTY

NO WARRANTY SHALL BE EFFECTIVE UNTIL THE TERMS AND CONDITIONS OF SALE SET FORTH IN CROSSFIELD PRODUCTS CORP. INVOICES ARE MET.

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CAUTION: ALWAYS KEEP OUT OF THE REACH OF CHILDREN



Miracote Product Line  
Crossfield Products Corp

[www.miracote.com](http://www.miracote.com)

East Coast Office  
140 Valley Road  
Roselle Park, CA 07204  
P: (908) 245-2800  
F: (908) 245-0659

West Coast Office  
3000 E. Harcourt Street  
Rancho Dominguez, CA 90221  
P: (310) 631-6594  
F: (310) 886-9119



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