



Product Technical Data Sheet



MVERS II™ (Moisture Vapor Emissivity Reduction System) Negative Side Moisture Vapor Barrier System

1) PRODUCT DESCRIPTION

A. COMPOSITION

Miracote MVERS II is a fluid-applied uniquely modified epoxy moisture mitigation system. It is designed to be used as an above- and below-grade vapor retarder that is placed on the negative side of the concrete substrate. As a vapor emission suppressor, one application of MVERS II will withstand moisture vapor emission rates of up to 10 lbs/1000 sq/ft/24 hrs. Two applications will withstand moisture vapor emission rates of up to 15 lbs/1000 sq/ft/24 hrs. It is recommended for use under impervious non-breathing flooring systems that cannot withstand moisture vapor transmission levels with moisture vapor emissions rates above the floor covering manufacturer's recommended levels.

Miracote MVERS II is ideal for use under the vast majority of non-breathing flooring systems, including epoxies, urethanes, rubber, adhesives (for carpet, vinyl and wood), vinyl tiles, vinyl sheet goods, woods and other impervious flooring systems.

As a general rule, most flooring manufacturers (rubber-backed carpet, tile, vinyl, wood or resinous) do not recommend installing their products on concrete surfaces having moisture vapor emissions rates level in excess of 3.0 lbs. of moisture emission over a 1,000 square foot area during a 24 hour time period as measured by an anhydrous Calcium Chloride Test Procedure tested in accordance with ASTM F1869.

Miracote MVERS II is applied in either single application of 7 mils wet/dry film thickness or two applications at 7 mils wet/dry film thickness per each coat. If vinyl tile, rubber, wood, carpet or other manufacturer flooring is the final flooring, a polymer modified cementitious intermediate coat is applied to provide for proper adhesion of the finished flooring system. Miracote resinous flooring systems may be applied directly to the Miracote MVERS II System. Consult Crossfield for recommendations regarding potential intermediate coating products for non-Miracote products.

Formulated with environmental requirements in mind, MVERS II contains no hydrocarbon solvents and thus meets all volatile organic substance regulations. MVERS II has no significant odor during installation.

2) TYPICAL USES

MVERS II is placed directly on properly prepared, strong and durable concrete substrates. The day after placement, the intended (impervious non-breathing) flooring system can be placed.

CAUTION: Concrete must be a minimum of 14 days old at time of application. Contact Crossfield for recommendations if fully cured concrete displays a moisture emissivity greater than 15 lbs/1000 sq/ft/24 hrs per ASTM F1869.

3) ADVANTAGES AND LIMITATIONS

ADVANTAGES:

1. Reduces or eliminates effects of moisture vapor emissions.
2. Excellent adhesion to concrete.
3. Convenient 3 : 2 by volume mix ratio.
4. High compressive, flexural and tensile strengths.
5. Installed only by Professional Factory Trained Miracote Contractors.

LIMITATIONS:

1. Minimum ambient and surface temperatures of 55°F (7°C) required during installation.
2. If sub-surface cracks, Miracote MVERS II may reflect those cracks to some degree.
3. Is not a substitute for a functioning vapor barrier beneath slab.
4. Prior to placement of third party flooring systems on top of Miracote MVERS II, check to make sure adhesive bond strength can be developed.
5. Miracote MVERS II is a topical treatment; therefore it is not a remedy for the causes of ASR (alkali silica reaction).
6. Moisture Vapor Transmission (MVT) in excess of 15.0 lbs./1000 sq/ft/per 24-hr. period per ASTM F1869 may result in delamination, discoloration or improper curing. Use Miracote MVERS vapor control membrane on substrates that have MVT emissions above this level.

2. TYPICAL PHYSICAL PROPERTIES at 75°F (24°C)

A. Adhesion ASTM D4541	>400 psi (100% failure in concrete exposed to moisture vapor emission rate at 15 lbs/1000 sq/ft/24 hr/per ASTM F1869)
B. Compressive Strength ASTM D695	12,000 psi
C. Tensile Strength ASTM D638	4,200 psi
D. Tensile Elongation ASTM D638, percent	2.7%
E. Microbial Resistance ASTM G21	Passes
F. Alkali Resistance ASTM D1308	Resistant

3. OVERVIEW OF INSTALLATION STEPS

- A. Apply Miracote MVERS II to prepared dry substrate of a CSP 3 - 5 at a coverage rate of 225 sq/ft (20.9M²) per gallon.
- B. Allow to dry time between coats 8 – 10 hours cure time at 75 Deg. F / RH 50.
- C. For moisture mitigation up to 15 lbs/1000 sq/ft/24 hrs a second application of MVERS II is required, at 225 sq./ft per gallon.
- D. Allow to cure a minimum of 8 – 10 hours prior to placement of surfacing material.

4. PRODUCT AVAILABILITY

Crossfield Products Corp. maintains offices and/or factories at all addresses listed below. Factory Trained Contractors are established in all major trading areas in the United States, Canada and various European, Latin American and Far East nations.

5. SPECIFICATION ASSISTANCE

Consult Crossfield Products Corp. for specification assistance, detailing, etc. This consultation is highly recommended prior to specification.

6. CHEMICAL RESISTANCE

See Crossfield Products Corp., Chemical Resistance Guidelines for chemical resistance of a product or system, as well as the types of test performed:

- ASTM C868 Standard Test Method for Chemical Resistance of Protective Lining.
- ASTM C267 Standard Test Method for Chemical Resistance of Mortars, Grouts, and Monolithic Surfacing and Polymer Concretes.
- ASTM D1308 Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes
- Crossfield Products Corp. Proprietary Testing

Note: Chemical resistance is a functional test, usually limited to changes in weight or thickness measured in loss or gain and does not evaluate subject aesthetic issues. To determine aesthetic issues, Crossfield recommends testing the products or system in accordance with intended end use.

7. TESTING

The technical data contained herein is the result of tests made in Crossfield's laboratories or in independent laboratories using small scale equipment, following generally accepted trade practices. Although this information is believed to be true and accurate, the use of different equipment for testing under dissimilar conditions or the testing of samples produced under dissimilar conditions may develop substantially different results.

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.



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