1. **PRODUCT DESCRIPTION**

**A. COMPOSITION**

VaporControl™ Primer 1P is a fluid-applied uniquely modified epoxy moisture mitigation system. It is designed to be used as a vapor retarder above and below grade that is placed on the negative side (on top of the concrete slab between the concrete and an impervious coating or surfacing) of the concrete substrate. As a vapor transmission suppression system VaporControl™ Primer 1P will withstand moisture vapor emission rates (MVER) of 24lbs/1000SF/24hrs or in situ RH of concrete substrate up to 99% and reduce emissions to a Permeance of < 0.1grains/h/ft²/in. It complies with ASTM F3010-13 Two-Component resin base membrane-forming moisture mitigation systems standard and is recommended for use under impervious non-breathing flooring systems that cannot withstand moisture vapor transmission levels with MVER rates above the floor covering manufacturer’s recommended levels.

As a general rule, most flooring manufacturers (rubber backed carpet, tile, vinyl, wood or resinous) do not recommend installing their products on concrete slab surfaces having MVER levels 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. VaporControl™ Primer 1P will reduce moisture emission below these levels and is ideal for use under the vast majority of non-breathing flooring systems, including resilient flooring, epoxies, urethanes, rubber, adhesives (for carpet, vinyl and wood), vinyl tiles, vinyl sheet goods, woods and other impervious flooring systems.

VaporControl™ Primer 1P has proven to reduce moisture vapor emissions and prevent damage from high alkalinity (pH 14) to allow for the successful installation of vinyl, wood or resinous flooring to concrete substrates.

VaporControl™ Primer 1P is applied in a single application ranging from 17-22 mils. If vinyl, tile, rubber, wood, carpet or other manufacturer flooring is the final flooring, a polymerized cementitious intermediate coat is applied to provide for proper adhesion of the finished flooring system. Dex-O-Tex resinous flooring systems and some resilient floor coverings may be applied directly to the VaporControl™ Primer 1P System. Consult Crossfield for recommendations regarding potential intermediate coating products for non-Dex-O-Tex products.

Formulated with environmental requirements in mind, VaporControl™ Primer 1P contains no hydrocarbon solvents and thus meets all air quality management district VOC substance regulations and can contribute to LEED certification. VaporControl™ Primer 1P has no significant odor during installation.

**B. TYPICAL USES**

VaporControl™ Primer 1P is placed directly on properly prepared, strong and durable concrete substrates. The day after placement (usually 16 hours), the intended (impervious non-breathing or moisture sensitive) flooring system can be placed.

**CAUTION:** Concrete must be a minimum of 3 days old at time of application. Contact Crossfield for recommendations if fully cured concrete displays a moisture emissivity greater than 24lbs/1000 sq/ft/24 hrs per ASTM F1869.

**C. ADVANTAGES AND LIMITATIONS**

**ADVANTAGES:**

1. 10 Year Full Replacement Warranty is available (Consult Crossfield for Details for Warranty Registration).
2. Reduces or eliminates the negative effects of moisture vapor emissions.
3. Excellent adhesion to damp concrete.
4. High compressive, flexural and tensile strengths.
5. Installed only by professional Factory Trained Dex-O-Tex Contractors.

**LIMITATIONS:**

1. Minimum ambient and surface temperatures of 50°F (10°C) required during installation.
2. If substrate cracks, Dex-O-Tex VaporControl Primer 1P may reflect those cracks to some degree.
3. Is not a substitute for a functioning vapor barrier placed beneath the concrete slab.
4. Prior to placement of third party flooring systems on top of VaporControl Primer 1P, check to make sure sufficient third party adhesive bond strength can be developed.
5. VaporControl Primer 1P is a topical treatment; therefore it is not a remedy for ASR (Alkali Silica Reaction) contributed failure.

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

**A. Adhesion** ASTM D7234.................................>480 psi (100% failure in concrete exposed to Moisture Vapor Emission Rate (MVER) at 10lbs/1000 sqft/24 hr/per ASTM F1869)

**B. Compressive Strength** ASTM D695 .................12,000 psi

**C. Tensile Strength** ASTM D638..........................5,600 psi

**D. Tensile Elongation** ASTM D638, percent ............2.7%

**E. Permeability (perms) Rating** ASTM E96..........<0.085

**F. Microbial Resistance** ASTM G21.................Passes Rating 1

**G. Alkali Resistance** ASTM D1308..................Resistant

**3. OVERVIEW OF INSTALLATION STEPS**

**A.** Prepare surface by removal of laitance, grease and foreign matter. Provide open surface on sound and durable concrete in accordance with SSPC SP13.

**B.** Apply Dex-O-Tex VaporControl™ Primer 1P to substrate with a 3/32” notched squeegee. Scrub material into the substrate the resins material immediately backroll with a 3/8” nap roller. Coverage rate is a minimum 70 sq/ft (6.5m2) to 95 sq/ft (8.82m2) to per gallon depending on the porosity of the substrate.

**C.** Allow to cure a minimum of 12 hours prior.

**D.** Optional – Use Dex-O-Tex SLU-50, A-81 SQ or Resistite to create a mechanical bond profile for carpet, vinyl and wood adhesives.
4. PRODUCT AVAILABILITY
Crossfield Products Corp. maintains offices and factories at 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. 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. INVOICE ARE MET.

Crossfield Products Corp. warrants to the purchaser of its products that such products are free from manufacturing defect. Crossfield does not warrant or guarantee the workmanship performed by any person or firm installing its products. Crossfield’s obligation under this warranty is limited solely to the original purchaser and solely to the remedy of replacement in kind of any product which Crossfield sold which may prove defective in manufacture within one year from date of installation, provided said product was stored correctly and installed within the product’s shelf life, by the original purchaser and which Crossfield examination shall disclose to Crossfield’s satisfaction to be thus defective.

IN NO EVENT SHALL CROSSFIELD PRODUCTS CORP. BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. THIS WARRANTY IS EXPRESSLY GIVEN IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR USE AND ALL OTHER OBLIGATIONS OR LIABILITIES ON CROSSFIELD’S PART, AND WE NEITHER_ASSUME NOR AUTHORIZE ANY PERSON OR PERSONS TO ASSUME FOR US ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF A CROSSFIELD PRODUCT. THIS WARRANTY SHALL NOT APPLY TO ANY OF CROSSFIELD’S PRODUCTS, WHICH HAVE BEEN SUBJECT TO ADULTERATION, ALTERATION, ABUSE OR MISUSE. CROSSFIELD PRODUCTS CORP. MAKES NO WARRANTY WHATSOEVER IN RESPECT TO ACCESSORIES, PARTS OR MATERIALS NOT SUPPLIED BY CROSSFIELD PRODUCTS CORP., WHICH ARE USED IN CONNECTION WITH ITS PRODUCTS. THE TERM “ORIGINAL PURCHASER” IN THIS WARRANTY MEANS THAT PERSON, CORPORATION OR ENTITY TO WHOM CROSSFIELD PRODUCTS CORP. SOLD ITS PRODUCT OR PRODUCTS. ANY ACTION TO ENFORCE ANY WARRANTY OR FOR BREACH OF CONTRACT OR ARISING OUT OF ANY CLAIM AGAINST CROSSFIELD PRODUCTS CORP. SHALL BE COMMENCED AND MAINTAINED ONLY IN A COURT OF COMPETENT JURISDICTION IN THE CONTINENTAL UNITED STATES OF AMERICA. THE PURCHASER ACCEPTS THESE TERMS AND CONDITIONS, AND HEREBY EXPRESSLY WAIVES ANY CLAIM TO ADDITIONAL DAMAGES.

CAUTION: ALWAYS KEEP OUT OF THE REACH OF CHILDREN.