



KOSTER VAP I® 2000 FS

A FAST SETTING SYSTEM FOR THE REDUCTION OF MOISTURE VAPOR EMISSION AND ALKALINITY CONTROL. SURFACING MAY TAKE PLACE WITH 3-4 HOURS OF APPLICATION

Description:

The KOSTER VAP I® 2000 FS (Fast Set) is a one-coat system which consists of a unique combination of epoxy resins and other chemical compounds. It is specifically formulated to overcome the poor long-term adhesion properties of most resin-based systems when curing in an environment of constant wetness, extreme alkalinity (pH 13-14) and water vapor drive. Because of its extreme density it is capable of reducing water vapor and moisture to levels acceptable for most coatings, adhesives and floor covering systems. (See Law Engineering test results.) The KOSTER VAP I® 2000 FS is in full compliance with current VOC regulations.

The KOSTER VAP I® 2000 FS SYSTEM has excellent chemical and abrasion resistance and is compatible with most 100% solid epoxy and/or polyurethane based materials. ALWAYS TEST ADHESION PROPERTIES OF MATERIALS TO BE APPLIED ONTO VAP I® 2000 FS PRIOR TO APPLICATION.

Before application of any material onto the KOSTER VAP I® 2000 FS SYSTEM, allow final coating to cure for a minimum period of 3-4 hours. This cure time is based on proper ventilation of entire work area during and after application. (See "environmental conditions.")

Uses:

The primary recommended use for the KOSTER VAP I® 2000 FS System is to solve the problems of alkalinity and moisture/water vapor emission through mineral-based substrates such as concrete floors, floor underlayments (not containing gypsum), screeds etc., by reducing these vapors to levels that do not interfere with the adhesion of floor coverings. It provides an excellent base coat for most coatings and adhesives that cures fast and can be used indoors due to its low odor and non-flammability. The KOSTER VAP I® 2000 FS SYSTEM may be applied to concrete and other cement-based toppings that have been allowed to cure for a minimum period of 7 days. It is not pH sensitive in an alkaline environment. These unique properties allow the system to provide a solution as a base coat to pH/moisture/water vapor-sensitive coatings such as polyurethane with regard to their long-term adhesion. It enables their application on relatively fresh cement-based substrates. Since conditions vary from job to job, it is recommended a test area be coated and tested for water vapor transmission to ensure proper performance of the system. The VAP I® 2000 FS may be used as a stand alone system but may turn yellow when exposed to Ultra-Violet Rays.

The KOSTER VAP I® 2000 FS SYSTEM is best used in an environment protected from UV rays. It is not a low modulus material and therefore cannot accommodate substrate movement commonly encountered in an outdoor environment. This limitation applies specifically to cracks and/or expansion joints. Cracks must be repaired according to manufacturer's recommendation prior to the application of the KOSTER VAP I® 2000 FS SYSTEM. Substrate should have a minimum compressive strength of 2500 psi.

Surface Preparation:

The substrates to receive the KOSTER VAP I® 2000 FS SYSTEM must be sound, clean, ABSORPTIVE, and meet acceptable industry standards as defined in ACI Committee 201 report "Guide to Durable Concrete." Any kind of surface contamination such as adhesives, bond-breakers, coatings, curing compounds, efflorescence, dust, grease, oils, etc., must be removed completely by sand or shot blasting to ICRI CSP 3 or CSP 4 finish. However, for hard-troweled surfaces such as aircraft hangers, blast to CSP-5. Smooth formed concrete surfaces such as precast panels must be roughened, if not absorptive, to allow the KOSTER VAP I® 2000 FS SYSTEM to penetrate. Acid etching or grinding as surface preparation is not recommended.

In the event surfaces are very uneven or have a rough texture, the use of a leveling underlayment may be beneficial. Consult with KOSTER AMERICAN prior to using underlayment/repair mortars/screeds. It is essential these materials are suitable for use underneath vapor-reducing systems. Test adhesion properties prior to application. DO NOT apply KOSTER VAP I® 2000 FS onto surfaces that have been treated with any kind of concrete sealer without prior consulting with KOSTER AMERICAN CORPORATION. First make sure the substrate surface does not deteriorate due to the presence of alkaline silica reactive substances or sulphurous compounds encountered in certain areas. Testing for concrete deficiencies and contaminants such as A.S.R. (Alkaline Silica Reaction), un-reacted water-soluble silicates, organic residue etc. is the responsibility of the Building Owner, and is strongly recommended by KOSTER to avoid product failures.

KOSTER American Corp. strongly advises that surfaces to be treated with KOSTER material be inspected and evaluated by an experienced firm prior to the application of KOSTER Systems to determine its suitability to receive the VAP I® System.

ONLY a surface that REMAINS sound, clean, absorptive and free of any type of contamination is fit to receive the KOSTER VAP I® 2000 FS SYSTEMS.

If cementitious underlayments are to be used for any reason, APPLY A NON-POROUS SUBSTRATE PRIMER, (SUCH AS THE VAP I® 06 PRIMER), AND THEN THE UNDERLAYMENT ON TOP OF KOSTER VAP I® 2000 FS. Consult with KOSTER AMERICAN prior to using underlayments, repair mortars or screeds. Always follow underlayment manufacturers' instructions and specifications.

ASTM E96-05 TEST RESULTS

KOSTER AMERICAN CORPORATION

	VAP I 2000 FS Wet Method
Water Vapor Transmission, grams h ⁻¹ m ⁻²	0.021
Water Vapor Transmission, lbs/1000ft ² /24 hrs	0.1
Avg. Measured Permeance, grains h ⁻¹ ft ² Hg ⁻¹	0.050

CTL Group Project No.: 281166

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Up to 98% Reduction in Moisture Vapor Emissions.

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Application Instructions:

Before application of the KOSTER VAP I[®] 2000 FS SYSTEM, make sure all conditions as outlined for uses, surface preparation and mixing have been strictly adhered to.

The KOSTER VAP I[®] 2000 FS SYSTEM may be applied using a squeegee and/or 3/8" nap roller. The coverage rates for the VAP I[®] System depend on the surface texture and porosity of the substrate as well as the degree of moisture level. The KOSTER VAP I[®] 2000 FS SYSTEM is self-leveling and will flow into low areas where it can build up. Therefore it is recommended to start with a trial area of application to determine final coverage. On average, a coverage rate of 90 to 130 ft²/gal. should be expected, but may vary from project to project.

Approximate Suggested Coverages

Vapor Testing per ASTM F 1869 (CaCl)

Up to 10 lbs. /1000 ft. /24h. = 150 ft ² /gal.
10 to 15 lbs. /1000 ft. /24h. = 125 ft ² /gal.
15 to 20 lbs. /1000 ft. /24h. = 100 ft ² /gal.
20 to 25 lbs. /1000 ft. /24h. = 75 ft ² /gal.

Relative Humidity Testing per ASTM F 2170 or F2420

< 85% rH = 150 ft ² /gal
85-90% rH = 125 ft ² /gal
90-95% rH = 100 ft ² /gal
95-100% rH = 75 ft ² /gal

For all substrates under 28 days old the coverage rate is 75 ft²/gal.

When applied onto absorptive concrete, the KOSTER VAP I[®] 2000 FS SYSTEM will penetrate deep into the voids of the substrate surface. This may result in the appearance of "outgassing" by displacing the air contained in the voids with resin. Extensive testing has shown that this "outgassing" does NOT affect the vapor performance of the system. This displacement may result in high points which may be removed with a razor scraper or very light disc sanding. All "outgassing channels" are self-sealed during curing of the system.

If this "displacement / outgassing" is of issue with the flooring installation, apply one coat of KOSTER VAP I[®] pH at a coverage rate of 200 ft²/gal. and wait a minimum of 12 hours before the application of the KOSTER VAP I[®] 2000 FS. After KOSTER VAP I[®] 2000 FS has cured for a minimum of 3 to 4 hours, the subsequent flooring systems may be installed.

Mixing:

Mix Component A and B at a rate of 2:1 by volume. This is accomplished by pre-mixing the A component; then pouring the B component into the short-filled A component; mixing all the while. Mix with a slow speed motor (<400 RPM) and "Jiffy-type" mixer FOR 2 MINUTES AND IMMEDIATELY POUR ON TO THE FLOOR. NEVER WAIT MORE THAN 5 MINUTES TO DISPENSE THE MATERIAL. If the KOSTER VAP I[®] 2000 FS is left in the container too long, potentially hazardous fumes may be released as with any other two component epoxy. If this occurs, remove pail and place outside.

Material Properties:

Pot Life:	6 minutes. <u>Immediately empty container after mixing</u>
Working Time:	15-20 Minutes
Solid Content:	100%
VOC, mixed:	< 10 gr./L
Flash Point:	>200°

Packaging: 2.4 gallon Combi-Pack

Storage: Between 50°F - 90°F

Shelf Life: 1 year in original sealed container

Clean Up: Immediately with Xylene after use

Disposal: Dispose of in accordance with current local, state and federal regulations. Collect with absorbent material.

Safety Precautions:

Component A contains epoxy resins. Component B contains amines. Avoid skin and eye contact as well as prolonged exposure to vapors. Use safety goggles and chemical-resistant gloves. Ventilate work area properly. Use NIOSH/MSHA approved respirator.

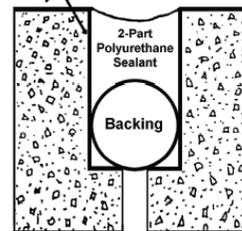
**KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY
READ MATERIALS SAFETY DATA SHEET
BEFORE USING
EMERGENCY RESPONSE: INFOTRAC 800-535-5053**

First Aid:

Eye Contact – Flush immediately with water and consult physician.

Skin Contact – Wash immediately with soap and water.

Cracks/Expansion Joints
VAP I[®] 2000 FS



Allow VAP I[®] 2000 FS to cure a minimum of 5 hours, before applying backing and sealant.

Environmental Conditions:

The KOSTER VAP I[®] 2000 FS SYSTEM must be applied at ambient and substrate temperatures between 50° and 90° F. (10° and 32°C) Temperature must be steady and/or falling but not rising at time of application. The relative humidity must not exceed 80%. IN ORDER TO AVOID ENTRAPMENT OF VOLATILE COMPONENTS USE SOLVENT / WATER-FREE ADHESIVES ONLY (100% SOLIDS). Follow Adhesive manufacturer's recommendations for use over a non-porous substrate. A thorough examination of all areas with the KOSTER VAP I[®] 2000 FS SYSTEM must take place prior to subsequent applications of coating or other coverings. If necessary, imperfections such as pinholes, inadequate coat thickness can be touched up with a second application of the coating, allowing the first coat to cure for a minimum of 3-4 hours.

Maximum recoat time (adhesives included) is 5 days.

Warranties:

LIMITED WARRANTY: KOSTER AMERICAN CORPORATION ("KOSTER") warrants that its products shall be in accordance with their published specifications and covenants that, in the event any of its products fail to meet their published specifications or their published performance standards (subject to published conditions such as proper application and surface preparation), KOSTER shall only replace those products proved defective, but KOSTER shall not be responsible for consequential damages due to the breach of its warranties. Notwithstanding the foregoing, KOSTER'S liability hereunder shall not exceed the cost of the defective product originally purchased. Please refer to our KOSTER 10-year warranty for the specific terms and conditions. THIS TECHNICAL DATA SHEET MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, AND MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. . This agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia, and all parties consent to jurisdiction in the courts located in the Cities of Norfolk and Virginia Beach, Virginia and agree that no other courts shall be an appropriate venue for any disputes arising out of the relationship between the Company and the Customer.

Distributed by:

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