



## KOSTER VAP I 2000 FS

Technical Data Sheet CT 233

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### Fast-setting system for control of concrete floor moisture and pH

#### Features

KOSTER VAP I 2000 FS is a fast-setting, one-coat, membrane-forming, moisture vapor control system consisting of a unique combination of epoxy resins and other compounds formulated to prevent floor covering failures on concrete slabs with elevated levels of moisture. KOSTER VAP I 2000 FS exceeds the performance requirements in ASTM F3010-13 "Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings." KOSTER VAP I 2000 FS can be applied to concrete slabs with relative humidity up to 100% RH, MVER of up to 25 lbs, and provides protection from sustained exposure to pH 14. Therefore, moisture and pH testing is not required. It is an excellent moisture blocker for virtually all types of flooring, including low permeance flooring such as vinyl, linoleum, carpet, rubber, and wood. KOSTER VAP I 2000 FS is compliant with all state and federal VOC regulations, having a VOC content of 0 g/L, which allows installation in sensitive areas such as hospitals, schools, and grocery stores. LEED Indoor Environmental Quality Credits are available for EQ 4.2 (Low-Emitting Materials, Paints and Coatings).

#### Technical Data

Working time:	approx. 12 min (apply material immediately after mixing)
Cure time:	approx. 4-5 hr (depending on temperature and humidity)
Solids content:	100%
VOC, mixed:	0 g/l
Flash point:	> 200°F
Tensile bond to concrete:	≥ 500 psi (ASTM D7234)
Compressive strength:	≥ 8,700 psi
Flexural strength:	≥ 4,350 psi
Permeance:	0.047 perms (grains/h/ft <sup>2</sup> /in. Hg, ASTM E96 water method 73°F/50%RH)
Recoat Window:	48 hr (max)

#### Fields of Application

KOSTER VAP I 2000 FS is formulated to treat new or existing concrete floors with high moisture and high pH. It is suitable for concrete slabs in offices, hospitals, schools, military facilities, supermarkets, manufacturing facilities, airplane hangars, single- and multi-unit housing, retail stores, and many other applications. KOSTER VAP I 2000 FS has low odor and zero VOC content, which allows application in occupied buildings with minimum disruption. Vapor retarders under the slab are not required.

#### Substrate

It is the responsibility of the owner or the owner's representative to examine the slab for contaminants. Testing for contaminants is not required but is strongly recommended by KOSTER. Concrete

substrates to receive KOSTER VAP I 2000 FS must be structurally sound, solid, and meet industry standards as defined in ACI Committee 201 Report "Guide to Durable Concrete." Surfaces to be coated with KOSTER VAP I 2000 products must be free of moisture-sensitive patching and leveling materials, adhesives, coatings, curing compounds, concrete sealers, efflorescence, dust, grease, oils and any other materials or contaminants that can act as bond breakers. Concrete must be free of deleterious materials or reactive aggregates. Patching or leveling compounds that will be underneath KOSTER VAP I 2000 products must be long term resistant to high moisture and high pH.

#### Concrete slabs with existing flooring failures

KOSTER strongly recommends identifying the cause of the failure. This usually requires cores to be taken and analyzed by a qualified laboratory. Contact the KOSTER American technical team to discuss details of taking cores and to discuss results of analysis of the cores and recommendations based on the findings.

#### Surface Profiling

All concrete surfaces to be coated with KOSTER VAP I 2000 FS must be mechanically prepared by shotblasting to an ICRI Concrete Surface Profile CSP 3 (Ref. 1). Grinding is permitted only in areas inaccessible to shotblasting or for edging purposes. Acid etching is not permitted. Upon completion of the grinding and shotblasting, the concrete slab must be free of all dust, dirt and debris prior to the KOSTER VAP I 2000 FS installation. Do not use sweeping compounds, as most contain oil which may cause bonding issues.

Ref 1: ICRI 310.2R-2013, Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair

#### Application

##### Mixing

Each unit is packaged containing the components in the correct ratio. One unit consists of 3 bags; 2 bags containing A component and 1 bag containing B component. Remove the bags and all other packaging materials from the bucket. Cut open the tops of the A-component bags and empty the contents of both bags into the bucket. Cut open the top of the B-component bag and empty the contents of the bag into the bucket. Use a slow speed electrical mixer (≤400 RPM) equipped with a "Jiffy spiral-type" mixing paddle to mix the material for 2 minutes. Avoid entraining air bubbles while mixing. Pour the fully mixed material in a continuous ribbon onto the substrate immediately after mixing, emptying the mixing bucket completely.

CAUTION: If mixed product is left in a large quantity such as a fully mixed bucket, there is the potential for rapid reaction that can generate high temperatures and produce steam or smoke. To avoid such risks,

##### Application

Apply KOSTER VAP I 2000 FS at substrate and ambient temperatures

The information contained in this technical data sheet is based on the results of our research and on our practical experience in the field. All given test data are average values which have been obtained under defined conditions. The installer is responsible for the correct application taking into consideration the specific conditions of the construction site and the final results of the construction process. This may require adjustments to the recommendations given here for standard cases. Specifications made by our employees or representatives which deviate from the specifications contained in any Company literature may not be relied upon in the absence of written confirmation from the Company. The installer must comply with all testing, technical requirement, guidelines, and industry customs at all times. The terms, conditions, and limitations contained in the written warranty for the product controls over the specifications contained herein. This guideline has been technically revised; all previous versions are invalid.

