



## KÖSTER VAP I 2000

Technical Data Sheet CT 230

Issued: 2017-09-07

- Official test certificate: Report of Water Transmission Test, Law Project Number 50160-0-3481.01.832 (LAW Engineering, Inc. Atlanta / USA)  
 - Report: Study of the permeability of impurities through a coating of KÖSTER VAP I 2000 from 4.9.2017 VAHANEN BUILDING PHYSICS LTD, FINLAND

### A system for the control of moisture and pH on concrete floors to avoid osmotic blistering

	KÖSTER BAUCHEMIE AG Dieselstraße 1-10, 26607 Aurich 13 CT 230 EN 13813:2002 KÖSTER VAP I 2000 <b>Synthetic resin for internal uses</b>
	Reaction to fire: Efl a) Release of corrosive substances: SR Water permeability: NPD Wear resistance: ≤ AR 0.5 Bond strength: ≥ B 2.0 Impact resistance: NPD Sound insulation: NPD Sound absorption: NPD Thermal resistance: NPD Chemical resistance: NPD Dangerous substances: NPD

primer by reducing the water vapor diffusion prior to the application of epoxy or polyurethane resin coatings or respectively the adhesion of vapor tight floor coverings such as PVC, rubber, wood, and solid backed carpet.

#### Substrate

KÖSTER VAP I 2000 is used to seal concrete surfaces. The minimum age of the concrete surface to be sealed must be 7 days. The surface to be sealed must be clean, absorbent, free of dust, oil and grease and other adhesion reducing substances. Any kind of surface contamination like adhesives, coatings, curing compounds, efflorescence, dust, grease, oils, etc., have to be removed completely by shot blasting. Smooth concrete surfaces must be roughened by sand or shot blasting. The substrate must have a minimum adhesive tensile strength of 1.5 N / mm<sup>2</sup>. During application and curing the surface must have a minimum + 3 °C above the dew point. The concrete must be free of alkali sensitive aggregates, and the surface free of water soluble silicates as often found in surface hardeners, sealing agents, and crystalline waterproofing products.

#### Features

Due to its very high interlacing density, KÖSTER VAP I 2000 is able to reduce the accumulation of water vapor to such an extent that synthetic resin coatings, synthetic resin adhesives and plastic coverings are not pushed off the substrate. The material displays a good resistance to water, sewage, mineral oil, salt solutions, and diluted acids.

#### Technical Data

Consistency	low viscous
Mix ratio	A : B by weight ( 2 : 1 )
Density of the mixed material	1.1 g / cm <sup>3</sup>
Pot life at + 23 °C	approx. 25 min.
Solids content	100%
Flash point	> + 200 °C
Curing time at + 20 °C	approx. 12 hours
Mechanical and chemical final strength, at 23 °C	after 7 days
Application / processing temperature	+ 10 °C – + 30 °C
Max. relative humidity during application/processing	85 %
Earliest water resistance	after 24 hours / + 23 °C
Compressive strength	approx. 65 N / mm <sup>2</sup>
Storage temperature	+ 10 °C – + 25 °C

#### Fields of Application

KÖSTER VAP I 2000 is a special resin for application on unsealed interior concrete floors such as industrial and multi-purpose halls, offices, hospitals, schools, supermarkets, manufacturing facilities, airplane hangars, storage and retail space, and commercial and residential construction which is exposed to moisture from the underside due to faulty or missing waterproofing of the concrete. It protects against high concrete alkalinity (pH 13 – 14) and serves as a

#### Underlayments / Leveling compounds:

KÖSTER SL Premium is especially suited for instalment on top of KÖSTER VAP I 2000.

Cementitious underlayments, leveling or skim coatings are not required over KÖSTER VAP I 2000 but are commonly used to smooth or level the KÖSTER VAP I 2000 coated surface in preparation for subsequent floor coverings and systems as required. KÖSTER VAP I 2000 is not formulated to be a floor leveling product.

All underlayments, leveling or skim coats must be applied on top of the cured KÖSTER VAP I 2000 unless otherwise specified by your representative or the KÖSTER Technical Staff. To guarantee proper adhesion of cementitious products to non-porous surfaces use KÖSTER VAP I 06 Primer prior to the installation of any cementitious material.

Do not install KÖSTER VAP I 2000 over any gypsum based products.

#### Adhesives

Most flooring systems and adhesives may be applied directly to the cured KÖSTER VAP I 2000. Adhesives must be designed and formulated for use over a non-porous substrate. There is no absorption of any fluid or solvents from the adhesive into the VAP I 2000 coated concrete. Apply adhesives to a test area to check for compatibility prior to overall application.

Adhesives containing solvents (including water) that are not allowed to flash off prior to the flooring installation may be applied to a minimum of 4 mm of a cementitious underlayment. Check with the manufacturer's recommendation for installation over an underlayment and the required thickness for use as an absorptive blotter.

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 proper and thereby effective and successful application of our products is not subject to our control. The installer is responsible for the correct application under consideration of the specific conditions of the construction site and for 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 exceed the specifications contained in this technical guideline require written confirmation. The valid standards for testing and installation, technical guidelines, and acknowledged rules of technology have to be adhered to at all times. The warranty can and is therefore only applied to the quality of our products within the scope of our terms and conditions, not however, for their effective and successful application. This guideline has been technically revised; all previous versions are invalid.

## Application

The two components of KÖSTER VAP I 2000 are mixed using an electrical stirring device below 400 rpm until a homogeneous consistency is achieved. To avoid defects due to insufficient mixing, replot the material and mix it again.

KÖSTER VAP I 2000 is applied evenly with a roller or squeegee in one coat. The formation of puddles must absolutely be avoided! Concrete surface profile, absorption rate and moisture vapor rates can effect coverage requirements. The substrate must be completely covered with a glossy film. The minimum continuous layer thickness is 0.4 mm. If a second coat is necessary to achieve the minimum layer thickness, it is to be applied between 12 and 24 hours after the first coat.

After a waiting time of min. 12 hours, subsequent work steps such as the application of sealants, coatings or coverings can be carried out. In order to avoid air entrapment, use only solvent free or respectively water free adhesives.

## Consumption

Approx. 0.450 kg / m<sup>2</sup>

## Cleaning

Clean tools immediately after use with KÖSTER Universal Cleaner.

## Packaging

CT 230 002	0.7 gallon Combi-Pack
CT 230 010	10,13 kg combipackage
CT 230 025	25,32 kg combipackage

## Storage

Store the material at + 10 °C to + 25 °C. If stored in originally sealed packages it can be stored for 1 year.

## Safety

Wear appropriate Protective Personal Equipment (PPE) when installing the material. Observe all governmental, state, and local safety regulations when processing the material.

## Other

Liquid polymers react to temperature fluctuations by changing their viscosity and/or curing behavior. Application should only be carried out during falling or constant temperatures. Low temperatures will slow the reaction; high temperatures and mixing large volumes will increase the reaction rate. Protect the coating from moisture of all kinds during application and curing.

## Related products

KÖSTER VAP I 2000 FS	Prod. code CT 233
KÖSTER VAP I 2000 UFS	Prod. code CT 234
KÖSTER Gauging rake	Prod. code CT 915 001
KÖSTER VAP I 06	Prod. code SL 131 009
KÖSTER SL Premium	Prod. code SL 280 025
KÖSTER SL	Prod. code SL 281 025
KÖSTER Universal Cleaner	Prod. code X 910 010

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