



KOESTER
VAP 1® ORS SYSTEM
Section 09699

AN OIL-REMOVAL AND CONTAINMENT PROCESS TO REHABILITATE CONCRETE SURFACES RENDING THEM SUITABLE TO RECEIVE ANY TYPE OF FLOORING SYSTEM

Description:

The KOESTER VAP 1® ORS System consists of one-coat of a special oil resistant coating (ORS-C) and a special detergent (ORS-D.) Both products combine to provide a dry, uncontaminated surface fit to receive flooring/coating systems.

The ORS-D has the ability to penetrate deep into the concrete surface to extract oil leaving a clean surface for the ORS-C Coating. The detergent is forced into the concrete with a “spinner” that ejects hot water at 5000 psi to force the detergent into the concrete. Depending on the degree of oil contamination, sometimes 2 ORS-D applications are necessary.

Preparation of Substrate:

The substrates to receive the KOESTER VAP 1® ORS SYSTEM have to be sound and meet acceptable industry standards as defined in ACI Committee 201 report “Guide to Durable Concrete.”

Depending on level of contamination, it may be necessary to mechanically remove surface buildup of oily crusts prior to the application of special detergent. (ORS-D).

The substrate must be cleaned with ORS-D and water blast with a minimum of 5000 psi in accordance with the detergent scrubbing method as outlined in ICRI Guideline No. 03732. Vacuum the oily wastewater into containment tanks. Repeat process until oil is removed from the concrete slab. Dispose of the oily wastewater in accordance with federal, state, and local regulations.

If self-leveling underlayments are to be used for any reason, always apply these systems ON TOP OF the KOESTER VAP 1® ORS SYSTEM, never underneath. Consult with KOESTER AMERICAN first before using underlayments / repair mortars / and screeds.

Applications:

Mix the A & B units in proper portion scraping both sides and bottom of mixing container. Thoroughly pre-mix Component A prior to adding Component B. Then mix liquids with a jiffy mixer at a slow speed for 3 minutes to a streak-free consistency. Pour material on floor, squeegee material evenly over surface, followed by back rolling with a 1/2" nap roller.

Under no circumstances is the floor allowed to dry prior to the application of the VAP 1® ORS-C.

Broadcast washed/dry sand into wet ORS-C coating to rejection for subsequent installations of materials/Systems. Apply approximately 30 lbs. of sand (#30-60) for each 100 ft. The size of sand will depend on final finish of surface required. Remove all loose sand after allowing the ORS-C Coating to cure for a minimum of 12 hours.

Technical Data:

Consistency	Approximately 800 MPa	ORS-C
Mixing ratio	8.33:1 (A:B by weight)	ORS-C
	4:1 by volume	ORS-C
Pot life	1 hr @ 70° F	ORS-C
Foot traffic	12 hrs	ORS-C
Compressive strength	80 N/mm	ORS-C
Specific gravity	2 g/cm3	ORS-C
Voc compliant	4.5 gr./L.	ORS-C
	.0 gr./L	ORS-D
Standard color	gray	ORS-C
Packaging	4 gal unit	ORS-C
	5 gal unit	ORS-D
Flash point	95°C	ORS-C
Solid content	98%	ORS-C

Packaging:

ORS D – 5 gal container

ORS C – 4 gal container

Shelf life is 18 months in closed, original packaging, stored in a dry, cool place.

Spread Rate:

ORS C - 100 sq ft/gallon depending on water vapor transmission.

ORS D - 200 sq ft/gallon. Based on a total two-coat application.
(400 sq ft/gallon per coat)

Cleaning:

Immediately after use clean tools with an organic solvent for ORS C, with water for ORS D.

Disposal:

Dispose of in accordance with current local, state, and federal regulations. Collect any spills with absorbent materials.

KOESTER VAP 1® ORS Oil Removal System

The Koester VAP® 1 System can be used on vapor-driven concrete. Contact KOESTER AMERICAN for specific applications.

This unique ORS Coating is compatible with a variety of floor adhesives and industrial coatings including the “New” Koester VAS Adhesives. Koester American offers a complete line of self-leveling cementitious underlayments and advanced floor adhesives enabling Koester American to offer our comprehensive 10-year warranty for the entire system.

Cleaning and coating instead of concrete removal saves time and expense



First Cleaning process, VAP 1® ORS-D Detergent.

Due to various activities, industrial floors can be oil/fat contaminated to a depth of several inches. A system has been developed to deep-clean and coat these floors started by mechanically removing surface contamination on layers, thereby exposing surface voids for subsequent deep cleaning.



Final Cleaning plus coating.

The prepared surface will be deep-cleaned with our specially developed VAP 1® ORS-D detergent that is power-washed into the concrete to ensure adequate removal of oil to a substantial depth. Finally the specifically formulated VAP 1® ORS-C Oil-Resistant coating will be applied to block any further migration of the oil to the surface. Three people can treat up to 5000 ft. in one day.



Surface ready for final VAP 1® ORS-C coating.

After a minimum cure period of 16 hours, final coatings such as polyurethanes, epoxies, resilient flooring or underlays, etc. can be applied onto our VAP 1® ORS-C Oil-Resistant coating.



Left: oily surface Right: ORS-C coated surface.

The cleaning and coating applications can take place in sections. This allows for application without causing disruption to building activities or problems with production/traffic. All products are VOC compliant.

Safety Precautions: ORS-C

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 NOISH/MSHA approved vapor respirator.

Safety Precautions: ORS-D

Use rubber gloves and tightly sealed goggles.

First Aid:

Eye Contact — Flush immediately with water and consult physician.

Skin Contact — Wash immediately with soap and water

Respiratory Problems — Take person to get fresh air

Environmental Conditions:

The Koester VAP I® ORS System must be applied at ambient and substrate temperatures between 50 and 90° F. (10° C and 32.2° C). The relative humidity must not exceed 80%.

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

Warranties:

LIMITED WARRANTY: KOESTER AMERICAN CORPORATION (“KOESTER”) 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), KOESTER shall replace those products proved defective, but koester shall not be responsible for consequential damages due to the breach of its warranties. Notwithstanding the foregoing, KOESTER’S liability hereunder shall not exceed one and one-half (1 1/2) times the cost of the defective product originally purchased. EXCEPT AS SET FORTH ABOVE, KOESTER MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, AND MAKES NO WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

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