

KEMKO® 246 MVR Primer

FOR MOISTURE
VAPOR REDUCTION
OF ON-GRADE
CONCRETE FLOORS

Type:	Two-component, solvent-free, low viscosity epoxy.
Primary Use:	Prime coating substrates where vapor drive moisture prevents proper bonding of coatings or grouts or damage impervious flooring materials such as carpet, vinyl tiles or wood.
Substrates:	Concrete slabs on grade. Dry and damp surfaces.
Minimum Temp:	Installation: 50° F
Thickness:	Single coat @ 15 mils (typical).
Coverage:	95-120 sq ft/gal @ 15 mils.
Colors:	Clear amber
Shelf Life:	One year minimum in sealed containers.

The properties listed in this bulletin are typical and descriptive of the product and should not be used for specification purposes. For specification preparation, reference the specification of this product available from ChemCo Systems, Inc. This product is available only through KIP System™ (KEMKO Injection Process) licensee/applicators.

DESCRIPTION: KEMKO® 246 MVR Primer is a two-component, solvent-free epoxy primer designed for prime coating dry and damp slab on grade concrete floors where moisture vapor transmission rates exceed 3 lbs./1000 ft.² over a 24 hr. period as measured by ASTM F1869. Typical applications include preparing for the installation of impervious floor coatings and coverings both above and below grade. KEMKO 246 reduces excessive moisture vapor transmission rates of up to 15 lbs./1000 ft.² over a 24 hr. period to below 3 lbs. to meet the requirements of impervious flooring manufacturers. The product's short cure cycle, tolerances of surface dampness, high bond strength, and low viscosity make it ideally suited as a primer.

FEATURES: KEMKO 246 is specifically formulated to bond urethanes, epoxies, polymeric coatings and flooring adhesives to properly prepared concrete while reducing MVT rates below the 3 lb./1000 ft.²/24 hr. threshold. Prime coating concrete substrates with KEMKO 246 significantly improves the bond strength of the subsequently applied coatings or adhesives and prevents damage from high alkalinity. The product has a convenient 2:1 (by vol.) mixing ratio and a fast cure for short downtimes. KEMKO 246 contains no volatile solvents (VOC's) and has very low odor.

LIMITATIONS: Primer coat of KEMKO 246 must be allowed to cure to a set but slightly tacky condition before application of the desired top coat. Substrate surfaces may be dry or slightly damp. The minimum substrate temperature for cure is 50 °F. Apply the material after the daily substrate temperature cycle has reached its peak. KEMKO 246 should be applied no sooner than 10 days after slab placement. A test evaluation is strongly suggested to ensure that a third party coating or adhesive bond strength is demonstrated. KEMKO 246 is not a substitute for a properly designed and placed vapor barrier (below slab membrane).

PACKAGING & COLOR SELECTION: Standard package sizes of Part A + Part B are 3, 15 and 150 gallon units. The standard color is clear amber.

SHELF LIFE: One year minimum in unopened, original containers when stored between 60 and 90 °F in a dry place away from sunlight. Remixing of components may be required upon prolonged storage.

CHEMICAL RESISTANCE: Resistant to a wide range of commonly used deicing and vehicular chemicals with limited resistance to hydrocarbon solvents. Performance is a function of the specific chemical and concentration, ambient and solution temperatures, exposure times and housekeeping procedures. For information on specific chemicals and exposure conditions, contact a ChemCo Systems technical representative.

SURFACE PREPARATION: Substrate surfaces may be dry or slightly damp but must be sound and free of all bond-inhibiting substances. Prepare surfaces for bonding in accordance with *ASTM D 4259, 'Standard Practice for Abrading Concrete,'* or *ACI 503R, Chapter 5, 'Preparing Surfaces for Epoxy Compound Application,'* and ChemCo Systems specific recommendations. Properly prepared concrete surfaces should have a minimum strength of 250 psi in direct tension.

MIXING: KEMKO 246 Primer is a two-component adhesive. The resin to hardener (Part A: Part B) mix ratio is 2:1, by volume. Wear safety glasses and rubber gloves when handling the material. Mix thoroughly using a Jiffy mixer blade attached to a low speed (350 - 750 rpm) electric or pneumatic drill for 2 - 3 minutes. Pour the mixed primer onto the directly on the substrate or into shallow tray (extends work life by reducing the build-up of exothermic heat).

INSTALLING: Prime the substrate with mixed KEMKO 246 using a 3/32" notched squeegee followed by back-rolling using a 3/8" nap roller. The recommended primer thickness is 15 mils (95-120 ft.²/gal) depending upon surface porosity. Apply the top coat or flooring adhesive to the primed substrate after the primer is set but still tacky not sooner than 10-12 hours after primer application. Clean application tools frequently. For primer cure times exceeding 24 hours, lightly top seeding the primer coat with 30-40 mesh kiln dried aggregate at a rate of 2 lb/ yd.² is recommended to improve bonding of the subsequent coating or adhesive.

CLEAN UP: All tools and equipment must be cleaned before the mixed material cures. Cleaning can be facilitated with a solvent such as acetone or heavy-duty detergents. Cured material may be removed from equipment and tools by soaking in an epoxy stripper.



ChemCo Systems, Inc.

2800 Bay Road

Redwood City, CA 94063

Ph 650-261-3790 Fax 650-261-3799

www.chemcosystems.com

Typical Properties (1)

Property	Test Method	Value	
Mix Ratio, A:B,	by vol	2 : 1	
MIX RATIO, A:B,	BY VOL	2 : 1	
	BY WT	100:60	
COLOR:	PART A	VISUAL	CLEAR AMBER
	PART B		AMBER TO SLIGHT BRN
	MIXED		CLEAR AMBER
WEIGHT PER GALLON, LB:	PART A	ASTM D 1475	9.5
	PART B		8.7
	MIXED		9.2
VISCOSITY, CP:	PART A	ASTM D 2393	700
	PART B		800 - 1000
	MIXED		750
GEL TIME, 250 G, MINUTES		ASTM D 2471	45
PRIMER SET TIME, MINIMUM, HOURS (2)		ASTM D 4541	@50° F 73° F 90° F 14 10 8
COMPRESSIVE STRENGTH, PSI		ASTM D695	12600
TENSILE STRENGTH, PSI		ASTM D 638	6200
ELONGATION AT BREAK, %		ASTM D 638	3
ALKALI RESISTANCE		ASTM D1308	PASSES
MICROBIAL RESISTANCE		ASTM G21	1 RATING
PERMEABILITY, INCH-LB. (THIN FILM)		ASTM E96	0.2 (DRY) 0.8 (WET)

(1) CURE SCHEDULE, 14 DAYS AT 73° ± 4° F AND TEST TEMPERATURE, 73° ± 4° F.

(2) MINIMUM PRIMER SET TIME BEFORE APPLICATION OF IMPERVIOUS COATINGS OR FLOORING ADHESIVES.

Handling and Toxicity: This bulletin does not accompany the product when sold. For hazard warnings, safe handling and first aid instructions, **CAREFULLY READ THE MATERIAL SAFETY DATA SHEETS AND CONTAINER WARNING LABELS.**

Part A: Liquid epoxy resin, HMIS Health Hazard Rating- 2 (Moderate Hazard). Warning! Causes eye and skin irritation. May cause allergic skin reaction, Harmful if swallowed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid prolonged or repeated contact with skin.

Part B: Liquid epoxy hardener, HMIS Health Hazard Rating- 3 (Serious Hazard). Contains alkaline amines. Danger! Causes severe eye and skin burns. May cause allergic skin and respiratory reaction, Corrosive. Do not get in eyes or skin or on clothing. Avoid breathing vapor, Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Keep away from heat and open flame.

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