

KEY EPOCOAT MVT PRIMER

Product Data Sheet



DESCRIPTION

KEY EPOCOAT MVT PRIMER is a unique water based epoxy primer designed for use as a 30 mil thick moisture mitigation treatment on concrete floor slabs with excessive moisture vapor emission rates or a high internal moisture content. **KEY EPOCOAT MVT PRIMER** will tolerate concrete moisture vapor emission rates (MVER) up to 20 lbs moisture per 1,000 square feet per 24 hours and also reduces MVER to less than 3 lbs when testing Epocoat surface in accordance with ASTM F1869. When tested in accordance with ASTM F2170 it will tolerate up to 99% relative humidity. If moisture tests exceed these limits contact **Key Resin Technical Service** for recommendations. **KEY EPOCOAT MVT PRIMER** is not a solution for concrete affected by ASR (alkali silica reaction) or NSAR (near surface alkali reaction).

KEY ADVANTAGES

- Excellent adhesion to properly cured and prepared concrete that is a minimum of 28 days old
- Proven performance as a moisture mitigation primer
- Low-odor during application and cure
- Meets USGBC LEED criteria for IEQ 4.2 for low VOC
- Greatly reduces concrete outgassing
- Moisture tolerant up to a 20 lbs MVER and 99% RH
- Reduces alkalinity and MVER to less than 3 lbs

KEY CONSIDERATIONS

- Slabs-on-ground must have a minimum 10 mil thick vapor retarder that conforms to the requirements of ASTM E1745 Class A with the permeance requirement modified to not exceed 0.01 perm
- Vapor retarder must be installed in direct contact with the underside of the slab
- Substrate temperature must be a minimum of 60°F and maximum of 85°F
- Cool temperatures or high air humidity will slow cure times
- Concrete slab surface must be dry and free of dirt, curing compounds, densifiers, oil or wax-based sweeping compounds and other foreign materials
- Concrete slab must not be in an active state of ASR, NSAR, exposed to hydrostatic pressure or actively seeping water
- Prepared concrete substrate must be porous and pass water drop absorption test ASTM F3191—absorption must begin in 60 seconds or additional preparation is required

COLOR SELECTION

KEY EPOCOAT MVT PRIMER is available in Off-White. Consult with **Key Resin Technical Service** on use of Key UPP pigment packs when necessary.

COVERAGE

KEY EPOCOAT MVT PRIMER coverage is 50-55 square feet per gallon to yield 30 wet mils average, consult with **Key Resin Technical Service**.

CURE/DRY TIME

Working Life, Approximate	30 min @ 75°F, 50% RH
Curing Temperature	Minimum 60°F
Min./Max. Recoat Time	16-48 hrs @ 75°F, 50% RH
Heavy Traffic Service	7 days @ 75°F, 50% RH

APPLICATION

SURFACE PREPARATION

Surface Preparation is the most critical portion of any successful resinous flooring system application. All concrete substrates must be in sound condition and comply with ACI 201 Guide to Durable Concrete. All substrates must be properly prepared as outlined in **Key Resin Technical Bulletin #1**. Work must be performed by trained or experienced contractors or maintenance personnel. Contact **Key Resin Technical Service** with questions.

MIXING & INSTALLATION INSTRUCTIONS

Mixing: **KEY EPOCOAT** is a two-component material. Part I and Part II are supplied in the correct mixing ratios. Always mix full or half units in the proportions supplied. Pre-mix Part II before splitting into half units. Always pre-mix Part II before combining with Part I. Add one (1) part of **EPOCOAT PART I** to four (4) parts **EPOCOAT PART II**. Do not add additional mix water unless approved by **Key Resin Technical Service**.

Thoroughly mix with a medium speed drill and Jiffy mixer for 3-4 minutes (create a vortex) until uniform. Do not entrap excessive air. Scrape all sides and bottom of container to ensure thorough mixing.

Optional Scratch Coat (to reduce risk of pinholes caused by concrete outgassing): Apply **EPOCOAT** to the properly prepared substrate with a squeegee at coverage rate of 160-200 ft² per gallon and backroll with medium nap roller to achieve uniform coverage. Allow to cure hard enough for light foot traffic, about 3-4 hours at 75°F and 50% RH.

Body Coat: Apply **KEY EPOCOAT** at 50-55 square feet per gallon, 30 wet mils average, using a 30 mil Easy Squeegee or similar spreading tool and back roll with a looped roller (protruding loop type roller) as needed to even out the material.

Note: If scratch coat is not applied and cured body coat has significant quantity of pinholes (they will be very small), apply 8-10 mil thick topcoat to seal up pinholes.

Consult with **Key Resin Technical Service** for further information.

CLEAN UP

Clean skin with soap and water. Tools and equipment should be cleaned with xylene or lacquer thinner. Consult Safety Data Sheet (SDS) for safety and health precautions.

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TECHNICAL DATA

Mixing Ratio	1 Parts A: 4 Parts B by Volume
Solids Content	59% Solids by Volume
Volatile Organic Content (VOC) (EPA Method 24)	1 g/L, compliant to low VOC Rule 1113 in all 50 states
Weight/gal	12.70 pounds per gallon, mixed
Flash Point	Part A: >212°F Part B: 170°F

AVAILABILITY

Key Resin materials are available throughout the United States and a number of other countries. Contact the **Key Resin Representative** in your area for details.

PHYSICAL PROPERTIES

Hardness, Shore D	ASTM D2240	50-60
Compressive Strength	ASTM C579	5,500 psi
Flexural Strength	ASTM C580	2,100 psi
Adhesion to Concrete (New concrete 7 days old @ 73°F)	ASTM D7234	300-400+ psi (Concrete Failure, varies by concrete strength)
Temperature Resistance:		
a) Continuous:		
-Dry heat		140°F (60°C)
-Humid		113°F (45°C)
b) Intermittent:		
-High pressure water		185°F (85°C)
-Dry heat		149-185°F (65-85°C)

WARRANTY

Key Resin Company ("Key") warrants for a period of one (1) year that its products will be free of manufacturing defects and will be in conformity with published specifications when handled, stored, mixed, and applied in accordance with recommendations of Key. If any product fails to meet this warranty, the liability of Key will be limited to replacement of any non-conforming material if notice of such non-conformity is given to Key within (1) one year of delivery of materials. Key may in its discretion refund the price received by Key in lieu of replacing the material. No customer, distributor, or representative of Key is authorized to change or modify the published specifications of this warranty in any way. No one is authorized to make oral warranties on behalf of Key. In order to obtain replacement or refund the customer must provide written notice containing full details of the non-conformity. Key reserves the right to inspect the non-conforming material prior to replacement. EXCEPT FOR THE EXPRESSED WARRANTY STATED ABOVE, THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. KEY'S OBLIGATION SHALL NOT EXTEND BEYOND THE OBLIGATIONS EXPRESSLY UNDERTAKEN ABOVE AND KEY SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO THE PURCHASER OR ANY THIRD PARTY FOR ANY LOSS, COST, EXPENSE, DAMAGE OR LIABILITY, WHETHER DIRECT OR INDIRECT, OR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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