

KEY #597-MVT PENETRATING PRIMER

Product Information Sheet



DESCRIPTION

KEY #597-MVT is a low viscosity, water-emulsion, penetrating epoxy primer designed for use as a moisture mitigation treatment on concrete with excessive moisture vapor transmission or moisture content. **KEY #597-MVT** will tolerate moisture transmission rates (MVT) up to 10 pounds moisture per 1,000 square feet per 24 hours as tested according to ASTM F1869 and moisture content up to 90% relative humidity as tested according to ASTM F2170.

KEY ADVANTAGES

- Excellent adhesion to properly prepared concrete which has a minimum of 28 days cure
- Fast dry time
- 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 10 lbs. MVT and 90% R.H.

KEY CONSIDERATIONS

- Slab on grade must have a minimum 10 mil puncture resistant moisture vapor retarder
- Substrate temperature must be a minimum of 55°F
- Concrete must be free of dirt, curing agents, fiber reinforcement, densifiers, ASR byproducts, standing water, and other foreign materials
- Primer must absorb completely into concrete pores, do not puddle or apply a thick resin-rich surface layer
- For use on standard mix design concrete, special mix designs or high density mix designs must be reviewed with Key Resin Technical Service

COLOR SELECTION

KEY #597-MVT is available in clear formulation only. Milky emulsion when mixed, clear/amber when dry.

COMPOSITION

Water-borne epoxy resin/hardener.

COVERAGE

KEY #597-MVT is applied at approximately 200-350 ft² per gallon depending on porosity, except highly porous substrates may require more material.

CURE/DRY TIME

Working Life	60 min @ 75°F
Dry to Touch	1.5-2.0 hrs @ 75°F
Dry Hard, light foot traffic	5 hrs @ 75°F
Recoat, minimum	3-5 hrs @ 75°F
Recoat, maximum	48 hrs @ 75°F

APPLICATION

SURFACE PREPARATION

Surface Preparation is the most critical portion of any successful resinous flooring system application. All substrates must be properly prepared as outlined in **Key Resin Technical Bulletin #1**. For use as MVT primer (>28 day old concrete), surface must be shot blasted or profiled with a grinder to a minimum CSP-3 profile and tested for moisture content to confirm moisture limit of **KEY #597-MVT** is not exceeded. Prepared surface must be able to pass a water absorption test to confirm adequate porosity: Apply dime size water droplets randomly across floor surface, (at least one per 100 square feet) using eye dropper. Water must completely absorb into concrete within 60 seconds. Areas that fail this test must be further prepared until passing the test. Work must be performed by trained or experienced contractors or maintenance personnel. The **Key Resin Technical Service Department** is available to answer any questions.

MIXING

KEY #597-MVT comes in a premeasured kit. Mix each component of **KEY #597-MVT** prior to combining. Mix Part A with Part B and mix thoroughly. **KEY #597** is diluted with an equal amount of water to reduce the solids content. Substrate and all materials must be maintained at 55°F-85°F for 24 hours before, during and after installation. Thoroughly mix Part A and Part B with a slow speed mixer for a minimum of 2-3 minutes. This will result in a creamy emulsion. Add an equal amount of water slowly while continuously mixing. Mix for another 3 minutes to ensure homogenous consistency. Be sure to use a suitable size mixing container since the mixed volume of material will double. **Final appearance when cured should NOT be a glossy film. Important: Avoid leaving puddles or a resin-rich surface film, immediately brush or roll out excess material.**

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.

RECOAT

KEY #597-MVT can be topcoated with **KEY #502** very rapidly. Cure time for light foot traffic is 5 hours, recoat time is 3-48 hours at 75°F and 50% RH. Allow for additional cure time in cooler temperatures and higher humidity.

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TECHNICAL DATA

Solids Content	38% mixed with water
Volatile Organic Content (VOC) (EPA Method 24)	40 g/L, compliant to low VOC Rule 1113 in all 50 states
Weight/gal	8.75 lbs/gal, mixed
Viscosity @ 75°F	200-300 cps

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

Adhesion to Concrete	ASTM D7234	300-400+ psi (Concrete Failure, varies by concrete strength)
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MAINTENANCE

KEY #597-MVT is designed for use as a penetrating concrete primer and not a topcoat requiring maintenance information. Finished systems used in conjunction with **KEY #597-MVT** should be accompanied with proper maintenance guidelines.

TECHNICAL SERVICE

Key Resin Company provides services and consultations on material selection, specification, troubleshooting, and other information on the proper repair and protection of concrete surfaces. **Key Resin Sales/Technical Representatives** are available to assist you. Telephone 888.943.4532 or visit www.keyresin.com.

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.



CORPORATE OFFICE / EASTERN US / INTERNATIONAL

4050 Clough Woods Drive . Batavia, OH 45103
513.943.4225 888.943.4532 www.keyresin.com

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WESTERN US

1315 E. Gibson, Suite D . Phoenix, AZ 85034
602.523.9353