



# KEY #587 WATER EMULSION PRIMER

## DESCRIPTION

**KEY RESIN #587** is a water emulsion epoxy primer/sealer designed for use on “green” concrete. **KEY #587** can be installed after the bleed water has evaporated if the concrete has cured for a minimum of 24 hours, up to a maximum of 48 hours after the concrete has been poured. Once **KEY #587** cures dry to touch (5 hours), you can apply any wall or floor system desired. **KEY #587** is specially formulated to reduce concrete outgassing and is ideal for green concrete surfaces.

## KEY ADVANTAGES

- Excellent Adhesion to Green Concrete Which Has a Minimum of 24 Hours Cure
- Fast Dry Time
- Low Odor During Application and Cure
- Zero V.O.C., Contributes Towards LEED Credits, Environmentally Friendly
- Greatly Reduces Concrete Outgassing
- Meets ASTM-309 Requirement For Use As a Concrete Curing Compound

## KEY CONSIDERATIONS

- Substrate temperature must be a minimum of 55°F and relative humidity below 85% for proper curing.
- Substrate must be free of dirt, waxes, curing agents, densifiers, hardeners, and other foreign materials.
- Slab on grade must have an efficient puncture resistant vapor barrier minimum 10 mils.
- Substrate temperature must be 5°F above measured dew point.
- To be used only on standard mix design concrete, a certain degree of porosity of the slab is necessary for proper penetration. Any special mix design or high density concrete must be reviewed by Key Resin Technical Service prior to use in the installation.
- Primer application must absorb completely into the concrete pores. Do not puddle or apply a thick resin-rich surface film if applying a resin floor system over Key #587.
- Be aware that typical concrete has significant shrinkage during the initial 28 days of cure. Cracks may form and control joints may open wider, affecting Key #587 and any flooring system installed over Key #587.
- Key #587 bonds to green concrete but is NOT considered a moisture mitigation primer.

## COMPOSITION

Water-Borne Epoxy Resin/Hardener



## COLOR SELECTION

**KEY #587** is available in clear formulations only. Milky emulsion when mixed, clear/amber when dry.

## APPLICATION

### SURFACE PREPARATION

**Surface Preparation** is the most critical portion of any successful resinous flooring system application. Surface contaminants must be removed and **KEY #587** must be applied immediately after bleed water evaporates, up to a maximum of 48 hours after the concrete is poured. Work must be performed by trained or experienced contractors or maintenance personnel. **KEY RESIN Technical Services** is available to answer any questions.

### INSTALLATION

**KEY #587** comes in a premeasured kit.

Mix each component of **KEY #587** prior to combining. Mix Part A with Part B and mix thoroughly. **KEY #587** is diluted with an equal amount of water to reduce the solids content.

Substrate and all materials must be maintained at 55°-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.

### CLEAN UP

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

### RECOAT

**KEY #587** can be top coated very rapidly. Cure time for light foot traffic in 5 hours, recoat time 5-48 hours at 75°F. Contact Key Resin Technical Service to confirm recommendations.

## COVERAGE

**KEY #587** is applied at 200-350 square feet per gallon and must penetrate concrete completely.

## TECHNICAL DATA

Viscosity @ 75 °F	200-300 cps
Solids Content	38% mixed with water
Volatile Organic Content (VOC)	Zero
Bond Strength to Concrete	350 psi (100% concrete failure)
Weight Per Gallon	8.75 pounds per gallon, mixed

## CURE/DRY TIME

Pot Life	1 hour minimum
Dry to Touch	1.5-2.0 hours @ 75 °F
Dry Hard, light foot traffic	5 hours @ 75 °F
Recoat, minimum	3-5 hours @ 75 °F
Recoat, maximum	48 hours @ 75 °F

## BATCHING INFORMATION

	<u>3.6 gallons</u>
KEY #587 PART A	0.8 gallon (3.2 qts.)
KEY #587 PART B	1.0 gallon
Clean Water	1.8 gallon
<b>Total</b>	3.60 gallon
Coverage (200-350 ft <sup>2</sup> /gallon)	720-1260 ft <sup>2</sup>

Apply **KEY #587** at a rate of 200-350 ft<sup>2</sup> per mixed gallon. Using a flat squeegee, spread material at the recommended rate. Pull the squeegee slowly with a puddle in front of the squeegee. Allow for sufficient wetting of the slab and backroll with a 1/4" nap roller. **Important:** Avoid leaving puddles or a resin-rich surface film; do not apply thicker than coverage rate of 200 ft<sup>2</sup> per mixed gallon.

## AVAILABILITY

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

## MAINTENANCE

**KEY #587** is designed to be a concrete primer and not a top coat requiring maintenance information. Finished systems used in conjunction with **KEY #587** 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](http://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.**