

# KEY #580 FLEXIBLE MEMBRANE

## Product Data Sheet



## DESCRIPTION

**KEY #580 FLEXIBLE MEMBRANE** is an ultra-high solids, flexible urethane-modified epoxy used as a crack isolation membrane for interior use under various **Key Resin Flooring Systems** or as a component of various **Key Lastic Systems**. **KEY #580** resists cracking caused by horizontal substrate movement, providing a crack resistant, resilient, sound absorbent, waterproof, durable floor. When used in conjunction with most **Key Resin Flooring Systems**, **KEY #580** offers stress-relieving properties for floor slabs that show movement or vibration. **KEY #580** is also used to treat the surface of individual cracks and properly filled and covered contraction joints (saw cuts). **KEY #580** is available in a wall grade formulation.

## KEY ADVANTAGES

- Crack resistant—flexibility allows horizontal substrate movement, aids in suppression of reflective cracking from substrate
- Advance technology maintains flexibility in cold temperatures
- Increased tensile and bonding strength versus epoxy-only membranes
- Higher compressive modulus provides greater support for heavy point loads versus softer membranes
- Optional scrim reinforcement
- Meets USGBC LEED criteria for IEQ 4.2 for low VOC
- Low odor for use in occupied areas
- Ultimate elongation of 140-150%
- Reduces noise created by mechanical vibrations
- Meets USDA requirements

## KEY CONSIDERATIONS

- Slab on grade must have an efficient vapor/moisture barrier
- Excessive moisture in concrete requires moisture mitigation system
- Substrate must be free of dirt, waxes, curing agents and other foreign materials
- Substrate temperature must be a minimum of 50°F
- Do not apply to wet or damp substrates

## COLOR SELECTION

Available in White, may be tinted with **Key Epoxy Color Packs**, contact Key Resin for mixing instructions. Custom colors are available with lab approval and additional lead time.

## CURE/DRY TIME

Working Life	30-40 minutes @ 75°F
Tack Free	10-12 hours @ 75°F
Recoat	12-48 hrs @ 75°F
Full Set Time	48-72 hrs @ 75°F
Full Cure & Max. Resistance	5-10 Days @ 75°F

## APPLICATION

### SURFACE PREPARATION

Surface Preparation is the most critical portion to any successful resinous flooring system application. 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. The **Key Resin Technical Service Department** is available to answer any questions.

### MIXING INSTRUCTIONS

Mix one (1) part of Part A with one (1) part of Part B, by volume with a slow speed drill until liquids are completely blended. Pour mixed **KEY #580** onto working area and spread with a notched squeegee or trowel at a rate of 40-50 ft<sup>2</sup> per gallon to achieve 32-40 mils. For complete installation instructions, contact **Key Resin Technical Service**.

### 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.

## COMPOSITION

Ultra-high solids flexible urethane-modified epoxy resin and amines

## COVERAGE

**KEY #580** will yield approximately 40-50 ft<sup>2</sup> per gallon to achieve 32-40 mils. **KEY #580 WALL GRADE** will yield 160-200 ft<sup>2</sup> per gallon to achieve 8-10 mils.

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### TECHNICAL DATA

Mixing Ratio	1 Part A to 1 Part B, by volume
Volatile Organic Content (VOC) (EPA Method 24)	<100 g/L, compliant to low VOC Rule 1113 in all 50 states for Industrial Maintenance category
Viscosity, mixed	4,800 cps

### PHYSICAL PROPERTIES

Adhesion to Concrete	ASTM D7234	300-400+ psi (Concrete Failure, varies by concrete strength)
Flammability	ASTM D635	Self Extinguishing
Hardness, Shore A Hardness, Shore D	ASTM D2240	70-80 60-65
Impact Resistance	ASTM D2794	Withstands 16ft./lbs. without cracking, delamination or chipping
Tensile Strength	ASTM D412	1,650 psi
Thermal Cycling	ASTM C884	No Cracking
Ultimate Elongation	ASTM D412	140-150%

### 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.

### 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.

Rev 6/26/2020 v1.0