

KEY #589 FLEXIBLE BINDER/MEMBRANE

Product Data Sheet



DESCRIPTION

KEY #589 FLEXIBLE EPOXY BINDER/MEMBRANE is a 100% solids flexible epoxy used as a crack isolation membrane for interior use under various **Key Resin Flooring Systems** or as a binder component of various **Key Lastic Systems**. **KEY #589** 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 #589** offers stress-relieving properties for floor slabs that show movement or vibration. **KEY #589** is also used to treat the surface of individual cracks and properly filled and covered contraction joints (saw cuts).

KEY ADVANTAGES

- Crack resistant—flexibility allows horizontal substrate movement, aids in suppression of reflective cracking from substrate
- Resilient—softer walking surface (used with **Key Lastic Flooring Systems**)
- Optional scrim reinforcement for crack-isolation use
- Meets USGBC LEED criteria for IEQ 4.2 for low VOC
- Low odor for use in occupied areas
- Ultimate elongation 130-150%
- Reduces noise created by mechanical vibrations

KEY CONSIDERATIONS

- Slab on grade must have an efficient vapor/moisture retarder
- Excessive moisture in concrete requires moisture mitigation system
- Substrate must be properly prepared and 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 surfaces
- When not applying over moisture mitigation system, apply over recommended primer

COMPOSITION

100% solids flexible epoxy resin and amines.

COLOR SELECTION

Available in White or Off-White for use as crack-isolation membrane. May be tinted with Universal Color Packs in Key Standard Colors when used with various **Key Lastic Flooring Systems**.

COVERAGE

KEY #589 will vary with type of flooring system specified. For use as crack-isolation membrane, apply at approximately 40-50 ft² per gallon to achieve 32-40 mils.

CURE/DRY TIME

Working Life	40 minutes @ 75°F
Recoat Cure Time	18-24 hrs @ 75°F
Light Traffic Cure Time	48-72 hrs @ 75°F
Full Cure & Max. Resistance	7-10 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 4 parts Part A with 1 part Part B by volume with a medium speed drill and jiffy mixer for minimum 3 minutes until liquids are completely blended. For use as crack-isolation membrane: Pour mixed material onto working area and spread with a notched squeegee or trowel at a rate of 40-50 ft² per gallon to achieve 32-40 mils. For use as binder with various **Key Lastic Flooring Systems**: Combine mixed material with designated filler and continue mixing for 1-2 additional minutes until filler is completely wetted out and no lumps are visible. Pour mixed material onto working area and spread with a cam rake at the required coverage rate for the specified system. 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.

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TECHNICAL DATA

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

AVAILABILITY

Key Resin materials are available throughout the United States, Canada, 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.

PHYSICAL PROPERTIES

Adhesion to Concrete	ASTM D7234	300-400+ psi (Concrete Failure, varies by concrete strength)
Flammability	ASTM D635	Self Extinguishing
Hardness, Shore A	ASTM D2240	70-80
Impact Resistance	ASTM D2794	16 ft./lbs.
Ultimate Elongation	ASTM D412	130-150%
Tensile Strength	ASTM D412	1,000 -1,200 psi

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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