

KEY #502 PRIMER, LOW MODULUS BINDER

Product Data Sheet



DESCRIPTION

KEY #502 is a 100% solids epoxy primer for concrete, wood, and masonry surfaces. Combining tolerance with damp surfaces and good wetting properties, **KEY #502** is the ideal primer for almost every **Key Resin Flooring/Coating System**. **KEY #502** provides excellent filling and sealing properties needed under high performance epoxy wall coatings on concrete and cinder block walls. The dampness tolerance of **KEY #502** allows it to be applied to damp concrete after surface preparation. This includes use as a repair resin to fill cracks in concrete, or as a bonding adhesive for bonding “old to old” or “new to old” concrete. **KEY #502** may also be used as an adhesive for bonding divider strips to the substrate. In addition, the low modulus of elasticity and stress relieving properties of **KEY #502** makes it ideal for use as a binder resin for epoxy mortar patching and grouting applications.

KEY ADVANTAGES

- Low modulus; stress relieving
- Fast cure and cold cure formulations available
- Dampness insensitive cure
- Conforms to ASTM C-881 properties
- Low viscosity-good wetting properties
- Meets USGBC LEED criteria for IEQ 4.2 for low VOC
- Low odor for use in occupied areas

KEY CONSIDERATIONS

- Bonding surfaces must be sound, clean, and free from standing water
- Substrate temperature must be a minimum of 50°F unless using cold cure formulation
- Substrate must be properly prepared and free of excess moisture content/emissions, curing agents, and other foreign materials

COLOR SELECTION

KEY #502 is available in **Clear** or **Key Standard Colors**. Custom colors are available subject to laboratory approval, additional lead time for production, and increased cost.

COVERAGE

KEY #502 when applied at 250-275 ft² yields 5-6 mils.

CURE/DRY TIME

Working Time	30-40 min. @ 75°F
Dry to Touch Cure Time	6-8 hrs @ 75°F
Recoat (Regular)	10-12 hrs @ 75°F
Recoat (Fast Cure)	4-6 hrs @ 75°F
Full Cure & Max. Resistance	5 Days @ 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**. Work must be performed by trained or experienced contractors or maintenance personnel. The **Key Resin Technical Service Department** is available to answer any questions.

INSTALLATION

When priming, spread **KEY #502** at a rate of 250-275 ft² per gallon or as needed depending on absorption into the prepared substrate. Care should be taken to avoid puddles. Application can be made with brush, roller, or squeegee. To speed production, use fast cure or cold cure formulation. For mortar applications, allow **KEY #502** to set for 30 minutes before topping. For coating applications allow **KEY #502** to cure hard before topcoating. For detailed mixing and application instructions refer to the appropriate Key Resin System Installation Instructions document or 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

Polyamide-Modified Epoxy Resin and Wetting Agents

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TECHNICAL DATA

Viscosity @ 75°F	400-450 cps
Mixing Ratio	2 Parts A:1 Part B by Volume
Solids Content	100% Solids 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
Gloss, 60°	Low Sheen
Weight/gal	9.00-9.50 lbs/gal, Mixed

PHYSICAL PROPERTIES

Adhesion to Concrete	ASTM D7234	300-400+ psi (Concrete Failure, varies by concrete strength)
Compressive Strength	ASTM D695	11,000 psi
Tensile Strength	ASTM D638	8,500 psi
Flexural Strength	ASTM D790	8,000 psi

MAINTENANCE

KEY #502 is typically used as a primer, adhesive, binder, or repair material underneath other **Key Resin** materials. Refer to the appropriate system technical data sheet for maintenance instructions, or **Key Resin Technical Bulletin #3** and **#3-A**.

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.

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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