

KEY VINYL ESTER PRIMER

Product Data Sheet



DESCRIPTION

KEY VINYL ESTER PRIMER is a high elongation vinyl ester resin primer with superior adhesion properties applied to properly prepared concrete or steel substrates with all **Key Vinyl Ester Systems**. Its high elongation properties reduces stress between the vinyl ester bodycoat/topcoat and the substrate.

KEY ADVANTAGES

- Excellent adhesion to concrete and steel substrates
- Compatible with all **Key Vinyl Ester Systems**
- High elongation mitigates stress between the vinyl ester bodycoat/topcoat and the substrate

KEY CONSIDERATIONS

- Substrate temperature must be a minimum of 50°F
- Substrate must be free of excess moisture transmission, paint, curing agents, and other foreign materials which can prevent proper bond
- Substrate irregularities may transmit through finish depending on system thickness
- Vinyl ester resin has a characteristic styrene odor during application and cure, fumes are flammable and heavier than air, use respirators and proper ventilation during application indoors and until system has fully cured—this will prevent high concentration of styrene from inhibiting the cure of the system.

COLOR SELECTION

KEY VINYL ESTER PRIMER is available in Amber Clear. The addition of graphite filler (when specified) yields a dark charcoal gray.

COVERAGE

KEY VINYL ESTER PRIMER is typically applied on concrete at 150-200 ft² per gallon yielding approximately 8-10 mils wft (5-7 mils dft).

COMPOSITION

Vinyl ester resin with styrene.
Packaging: 5 gallon pail part A and 15 vol. oz. part B Catalyst.

CURE/DRY TIME

Working Life*	15-20 min @ 75°F, 50% RH
Recoat* (Min-Max) (May apply over tacky primer)	3-96 hrs @ 75°F, 50% RH
Light Traffic*	24 hrs @ 75°F, 50% RH
Full Cure & Max. Resistance*	5 days @ 75°F, 50% RH

*Cure time varies with temperature, air movement, humidity and thickness. Exposure of the primer to direct sunlight will reduce maximum recoat time to 6 hours.

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. Contact the **Key Resin Technical Service Department** with questions.

MIXING & INSTALLATION

Mixing: Thoroughly pre-mix Part A (Resin) component for 30 seconds prior to combining with Part B (Catalyst). Add 3.0 fluid ounces of Part B (Catalyst) per gallon of Part A (Resin) and mix thoroughly with a low speed drill and jiffy-type mixer at 75°F for additional 2 minutes. This ratio can be varied slightly to suit temperature and cure conditions. At 50°F add 5.0 fluid ounces. **KEY VINYL ESTER PRIMER** in 5 gallon kits is supplied with 15 ounces of Part B (Catalyst). Additional Part B may be purchased separately.

Application: Pour mixture in a ribbon on dry, prepared surface and spread with squeegee to coverage rate of 150-200 ft² per gallon. Immediately back roll with medium nap high quality roller.

Note: Application in direct sunlight may lead to blistering, pinholes or wrinkling due to outgassing of air in the concrete and high substrate temperatures. Double priming, shading or evening application may be necessary.

For complete mixing and installation instructions, consult the installation instructions document for the specified system and contact **Key Resin Technical Service**.

CLEAN UP

Clean skin with soap and water. Tools and equipment should be cleaned with MEK or lacquer thinner. **DO NOT** use Acetone. Consult Safety Data Sheet (SDS) for safety and health precautions.

CHEMICAL RESISTANCE

Refer to the specified **Key Vinyl Ester System**, contact **Key Resin Technical Service** for any chemicals not listed.

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TECHNICAL DATA

Mixing Ratio	1 gallon Part A to 3-5 oz Part B catalyst
Solids Content	85%, by volume
Volatile Organic Content (VOC) (EPA Method 24)	<100 g/L, compliant to Industrial Maintenance Coating VOC Rule 1113
Flash Point	80°F
Shelf Life	2-3 months @ 75°F

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 D7240	300-400+ psi (Concrete Failure, varies by concrete strength)
Impact Resistance	Gardner Impact Tester	>120 in/lbs
Flammability	ASTM D635	Self-Extinguishing over Concrete
Tensile Strength	ASTM C307	2,700-3,000 psi
Thermal Coefficient of Expansion	ASTM C531	6-10 x 10 ⁻⁸
Water Absorption	ASTM D570	.15% maximum
Tensile Elongation	ASTM C307	5%
Fungus & Bacterial Growth	MIL-F-52050 §4.4.2.11	Will not support growth of fungus or bacteria when subjected to mildew and bacteria test

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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