

KEY #446 URETHANE SEALER

Product Information Sheet



DESCRIPTION

KEY #446 is a two component water based aliphatic (non-yellowing) polyurethane with a gloss finish. **KEY #446** is free of the health and environmental problems normally found in solvent-based urethanes, while maintaining excellent performance properties. **KEY #446** has good chemical, stain, and mar resistance. In addition, it's easy to clean and has excellent color retention under heavy foot traffic. **KEY #446** is a high performance coating for use in a variety of seamless floor and wall coating systems. **KEY #446** can be used as a seal coat for a variety of **Key Resin Systems**.

KEY ADVANTAGES

- Low odor for use in occupied areas
- Meets USGBC LEED criteria for low VOC
- Chemical and stain resistant
- UV stable
- Meets USDA requirements

KEY CONSIDERATIONS

- Substrate temperature must be a minimum of 50°F
- Application rate is no less than 250 ft² per gallon, thicker films will show bubbling in the cured film
- Pot life will vary with temperature
- Do not use in areas requiring hot tire stain resistance
- Use of non-skid additive is recommended for slip resistance

COLOR SELECTION

KEY #446 is available in Clear gloss, with optional **Key Urethane Pigment Packs** in **Key Urethane Standard Colors**. Pigment packs **MUST** be added only after first thoroughly mixing Part A and Part B. Also available in factory tint **Key Resin Standard Colors** and custom colors with lab approval, longer lead time and possible added cost. Note: Pigment Pack colors may vary from Factory Tint colors—confirm final selection with samples. For Matte finish use **KEY #445**. For Satin or Semi-Gloss, **KEY #445 A** and **KEY #446 A** may be combined, contact **Key Resin Technical Service** for details.

CURE/DRY TIME

Working Life	5-8 mins @ 77°F, 50% RH
Pot Life (in mix vessel)	30 mins @ 77°F, 50% RH
Dry to Touch	6 hrs @ 77°F, 50% RH
Recoat	10 hrs @ 77°F, 50% RH
Light Foot Traffic Service	24 hrs @ 77°F, 50% RH
Full Cure & Max. Resistance	5 Days @ 77°F, 50% RH

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

Thoroughly mix each component prior to combining. Mix four (4) parts by volume of Part A (Resin) with one (1) part by volume of Part B (Hardener) for three minutes very thoroughly with a low speed electric drill and jiffy mixer. Do not add water or other solvent unless approved by **Key Resin Technical Service**.

INSTALLATION

KEY #446 is typically spread with a squeegee and back-rolled or applied from a paint pan using dip & roll method. Use a 3/16"-3/8" nap phenolic core roller at a spread rate of 250-500 ft² per gallon to achieve 1.35-2.75 mils dry film thickness. At the recommended thickness range bubbles may occur which will dissipate quickly, however a thicker application may result in bubbles formed in the cured film. Keep a wet edge at all times to prevent knit lines, roll-in time is maximum 5-8 minutes at 77°F, 50% RH. Care should be taken to minimize the entrapment of air caused by over-rolling. 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

Waterborne acrylic resin/aliphatic polyisocyanate.

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TECHNICAL DATA

Mixing Ratio	4 Parts A:1 Part B by Volume
Solids Content	43% Solids by Volume
Volatile Organic Content (VOC) (EPA Method 24)	67 g/L, compliant to low VOC Rule 1113 in all 50 states
Viscosity @ 75°F 30 min.	600 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.

MAINTENANCE

After completing the application of **KEY #446**, the installer should provide the owner with maintenance instructions. **KEY #446** is easily cleaned with neutral soaps or detergents. Refer to **Key Resin Technical Bulletin #3** and **#3A** for additional recommendations.

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+ psi (Concrete Failure, varies by concrete strength)
Gloss, 60° - Clear		Gloss Finish
Abrasion Resistance	ASTM D4060 CS-17 Wheel, 1000 cycles	45 mg loss
Impact Strength (Direct)	ASTM D2794	160in./lbs.
Impact Strength (Reverse)	ASTM D2794	160in./lbs.
Chemical Resistance		Contact Key Resin Technical Service

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.