



KEY #446

URETHANE COATING/SEALER

DESCRIPTION

KEY #446 is a two-component water-based aliphatic (non-yellowing) polyurethane with 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 polyurethane 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** eliminates the strong solvent odor normally associated with high performance materials such as **KEY #450**. Typical application areas are floors and walls in corridors, clean rooms, pharmaceutical facilities, stained concrete, and as a seal coat for most Key Resin floor and wall systems.

KEY ADVANTAGES

- Low VOC, Meets S.C.A.Q.M.D. Limits for Use as Industrial Maintenance Coating
- Low Odor
- Fast Cure
- Excellent Adhesion
- Excellent Abrasion Resistance

KEY CONSIDERATIONS

- Application rate is no thicker than 250 square feet per gallon. Thicker films will show bubbling in the cured film.
- Not resistant to hot tire staining.

COMPOSITION

KEY #446 is an acrylic resin/aliphatic polyisocyanate.

COLOR SELECTION

KEY #446 is available in clear and factory pigmented colors. Gloss finish only. For Matte finish, refer to **KEY #445**. For Semi-Gloss, consult with Key Resin Technical Service.

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.

MIXING INSTRUCTIONS

- Mix only that amount of material that can be used in a 30 minute period. In hot weather, plan work for the cooler times of the day.
- If using less than full units, proportion the amounts carefully and mix for 2-3 minutes using a low speed drill, scraping the bottom and sides of the mixing vessel.

APPLICATION

- Apply **KEY #446** polyurethane at a spread rate of 250-400 square feet per gallon to achieve 1.75-2.75 mils dry film thickness. Thicker application may result in bubbling in the cured film. Recoat time is approximately 10 hours at 77°F. Keep a wet edge at all times, roll-in time is maximum of 8-12 minutes at 77°F.
- Use with adequate ventilation. Read detailed mixing/installation instructions and material safety data sheet before using.

TECHNICAL DATA

Mixing Ratio	4 Parts A to 1 Part B by Volume
Solids Content - Clear	43%, by Volume
Volatile Organic Content (VOC)	67 g/L
Pot Life	30 minutes @ 77°F, 50% RH
Dry to Touch	6 hours @ 77°F, 50% RH
Recoat	10 hours @ 77°F, 50% RH
Light Foot Traffic	16-24 hours @ 77°F, 50% RH
Full Cure	4-5 days @ 77°F, 50% RH
Gloss, 60° - Clear	Gloss Finish
Tabor Abrasion, 1,000 gm. load, 1,000 cycles, CS-17 Wheel	45 mg. loss
Impact Strength ASTM-D-2794 Direct Reverse	160 in. lbs. 160 in. lbs.

CHEMICAL RESISTANCE

REAGENT	RATING	REAGENT	RATING
Acetic Acid-5%	L	Iodine*	L
Acetone	L	Lactic Acid-15%*	R
Betadine*	L	Methyl Ethyl Ketone	L
Bleach-10% *	L	Mustard*	R
Citric Acid-30%	L	Nitric Acid-10%*	L
Coffee	R	Skydrol	R
Crude Oil	R	Sodium Hydroxide-50%	R
Diesel Fuel	R	Spor-Klenz (concentrate)*	L-1 hour
Ethanol	L	Spor-Klenz (diluted)	L-4 hours
Ethyl Acetate	L	Sulfuric Acid-10%	R
Ethylene Glycol	R	Toluene	L
Fatty Acids	L	Urea	R
Gasoline	R	Vinegar*	L
Hydrochloric Acid-10%	R	Xylene	L

R - Recommended for 24 hours or less exposure time.

L - Limited recommendation for 8 hours or less exposure, requires more frequent cleanup, occasional spills only.

* - May cause slight stain or discoloration.

AVAILABILITY

Key Resin materials are available throughout the United States, Canada, and a number of other countries. Contact the **Key Resin Sales/Technical Representative** in your area for details.

MAINTENANCE

After completing the application of **KEY #446 Urethane Coating/Sealer**, the installer should provide the owner with maintenance instructions. **KEY #446** is easily cleaned with neutral soaps or detergents. Refer to Key Resin Technical Bulletins #3 and #3-A for additional information.

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.