



# KEY RESIN #446

## URETHANE COATING/SEALER

### DESCRIPTION

**KEY RESIN #446** is a two component water-based aliphatic (non-yellowing) polyurethane. **Key #446** is free of the health and environmental problems normally found in solvent-based urethanes, while maintaining excellent performance properties. **Key #446** is also available in an ESD formulation which must be applied over a base coat of Key Conductive Epoxy.

**KEY RESIN #446** polyurethane provides a gloss finish. **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 RESIN #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**. It's ideal for topcoats and finishes that require high abrasion resistance. Typical application areas are clean rooms, hospitals, pharmaceutical facilities, stained concrete, wood floors, and as a seal coat for most Key Resin floor and wall coating systems.

### KEY ADVANTAGES

- Low VOC
- Low Odor
- Fast Cure
- Excellent Adhesion
- Excellent Abrasion Resistance

### KEY CONSIDERATIONS

- Allow material to rest for 15-20 minutes for viscosity adjustment.
- Application rate is no less than 250-275 square feet per gallon. Thicker films will show bubbling in the cured film.

### COMPOSITION

**KEY RESIN #446** is a polyester resin/aliphatic polyisocyanate.

### COLOR SELECTION

**KEY RESIN #446** is available in clear and pigmented colors. Gloss finish. ESD formulation available in clear or pigmented.

### 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 COMPANY'S TECHNICAL BULLETIN #1**. Work must be performed by trained or experienced contractors or maintenance personnel. The **KEY RESIN COMPANY** service department is pleased to answer any questions.

#### MIXING INSTRUCTIONS

- Mix only that amount of material that can be used in a two hour 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. **DO NOT ADD WATER.**

#### APPLICATION

- Apply **Key #446** polyurethane at a spread rate of 275-300 square feet per gallon to achieve 2.0-2.5 mils dry. 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. Apply **Key #446 ESD** at a spread rate of 160 square feet per gallon to achieve 5 mils dry.
- Use with adequate ventilation. Read material safety data sheet before using.

## TECHNICAL DATA

Mixing Ratio – Clear	4 Parts A to 1 Part B by Volume
Solids Content – Clear	43%, by Volume
Volatile Organic Content (VOC)	0.10 pounds/gallon
Pot Life	1 ½ - 2 hrs. @ 77°F, 1 Quart 45 minutes @ 95°F, 1 Quart
Viscosity After 15 Minutes @ 77°F	500-600 cps.
Viscosity After 30 Minutes @ 77°F	600 cps.

Wait 15-20 minutes after mixing to start application.  
Viscosity will decrease with time. DO NOT ADD WATER.

## DRY TIME @ 77°F, 50% R.H.

Dry to Touch	6 hours
Recoat	10 hours
Light Traffic	16-24 hours
Full Cure	4-5 days

## AVAILABILITY

Key Resins are available throughout the United States, Canada, and a number of other countries. Contact the KEY REPRESENTATIVE in your area for details.

## MAINTENANCE

After completing the application of KEY RESIN #446 Urethane Coating/Sealer, the installer should provide the owner with maintenance instructions.

KEY RESIN #446 is easily cleaned with neutral soaps or detergents.

## TECHNICAL SERVICE

Key Resin Company and KRC Associates, Inc. provide services and consultations on material selection, specification, troubleshooting, and other information on the proper repair and protection of concrete surfaces. KEY REPRESENTATIVES are available to assist you at any time. CALL (888)943-4532.

## 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.

## PERFORMANCE PROPERTIES

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.

