



Sections

09 09 96 00
High Performance Coatings

URETHANE 645 - CA™

HIGH PERFORMANCE, TWO COMPONENT SOLVENT BASED ALIPHATIC URETHANE COATING DESIGNED TO REPEL CHEMICALS AND RESIST ABRASION WITH A LOW VOC CONTENT THAT IS ACCEPTABLE FOR USE IN CALIFORNIA. AVAILABLE IN A CLEAR OR COLORED SEMI-GLOSS FINISH.

Description

The Urethane 645 is a solvent-based, two-component polyester/aliphatic polyurethane coating designed to coat concrete floors combining the highest quality of aliphatic urethane components. The Urethane 645 provides incredible abrasion resistance and chemical resistance.

Recommended for indoor areas with high risks of exposure to chemical spills, fuel, heavy equipment, extreme temperatures and any other potentially damaging situation

the substrate may encounter. The Urethane 645 is also available in a California compliant version offering <100 g/L VOC.

Solids

89%

Appearance/color

Available in clear and variety of standard and custom colors

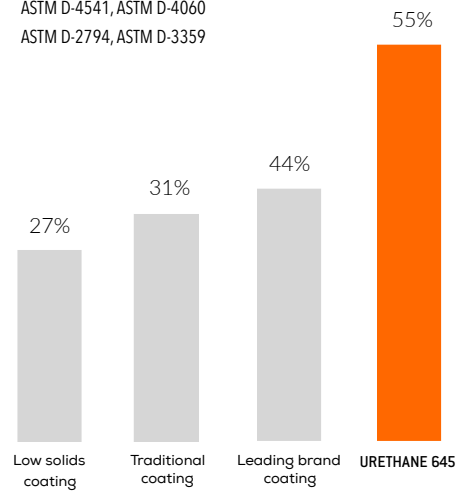
Coverage

500 ft²/gallon

IMPACT RESISTANCE
ABRASION RESISTANCE, CHEMICAL RESISTANCE

Meets the requirements of:

ASTM D-1308, ASTM D-3363,
ASTM D-4541, ASTM D-4060
ASTM D-2794, ASTM D-3359



Percentage Improvement vs. Control



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TECHNOLOGY // ADVANTAGES

- **Composition** - 89% solids nanotechnology driven high-performance solvent based aliphatic urethane coating
- **Excellent hardness** - provides a long service life without loss of flexibility
- **Excellent durability** - provides a long service life
- **May be used as a top coat** or a stand alone product
- **High strength**, tenacious adhesion
- **Maintains a cleanable, attractive**, hygienic surface, easily scrubbed and cleaned
- **Stops dusting** and allows for easy cleaning
- **Protects substrates from chemical spills** and corrosion, withstands heavy use
- **UV stable** - long term color retention, fade resistant
- **Abrasion resistant** and scratch resistant
- **Provides a tough color-fast finish** on warehouse floors and auto repair shops

For interior use only

TYPICAL PROPERTIES

Appearance - Available in clear and variety of standard and custom colors

Packaging - 1 gallon kit

VOC's - 100 g/L maximum

Recommended Thickness - 3-5 mils (2-3 mils dry (DFT))

Shelf Life - 1 year (unopened) from date of manufacture

APPLICATIONS

- Interior
- Horizontal
- Garages
- Shop Floors
- Warehouses

SUBSTRATES

- Concrete



Technical Data Sheet

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TESTING DATA

TECHNICAL SPECS

Feature: Durable Coating

Chemistry: Aliphatic Urethane

Color: Clear, white, off white, light gray, medium gray, charcoal gray, tile red, tan, light blue, blue

Finish: Gloss

Carrier: Solvent

Availability: 2 component kit

Packaging: 1 Gallon Kit

Coverage: 500 sq. ft. per gallon at 3-5 mils wet film thickness

Application Method: Roller/brush

Application Temperature: 55-90 degrees F with relative humidity below 75%

Number of Coats: 1

Clean up: Ketone solvents

VOC Content: 100 g/L

Impact Resistance: 160 in/lb

Abrasion Resistance: 20 mg

Adhesion: 300 psi

Viscosity: 1000-2000 cps

Primer: Epoxy 325

CHEMICAL RESISTANCE

10% Sodium Hydroxide: Long Term Immersion

10% Sulfuric: Short Term Immersion

10% Hydrochloric Acid: Long Term Splash Spill

20% Nitric Acid: Short Term Splash Spill

50% Sodium Hydroxide: Short Term Immersion

Acetic Acid 5%: Short Term Immersion

Ethylene Glycol: Short Term Immersion

Gasoline: Short Term Immersion

Mek: Not Recommended

Methyl Alcohol: Short Term Splash Spill

Xylene: Short Term Immersion

CURE TIMES (70°F)

Pot Life - 1.5 gallon volume: 1-2 hours

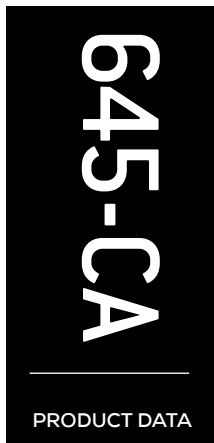
Tack Free (dry to touch): 3-6 hours

Recoat or Topcoat: 6-10 hours

Light Foot Traffic: 14-24 hours

Full Cure (heavy traffic): 3-5 days

Test results are averages obtained in a controlled environment, material and curing conditions of 70°F and 50% relative humidity. Reasonable variations should be expected .



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APPLICATION

Surface Prep

1. The concrete substrate to be coated must be clean, dry, and completely free of loose particles, grease, oil, or any substance that would interfere with proper bond.
2. Surface and air temperatures must be at least 55°F during application. Surface and air temperatures should not exceed 90°F. Keep material from freezing.
3. The surface-zone moisture content of the concrete should not exceed 4% wt. A test should be made to determine that the concrete has an appropriate vapor barrier. This can be done by placing a 4'X4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate does not show signs of eventual hydrostatic pressure problems that may later cause disbanding.
4. For a one or two coat thin build system (3-10 mils dry) we recommend either mechanical scarification or acid etching until a suitable profile is achieved. For a complete system build higher than 10 mils dry, we recommend a fine brush blast (shot blast). If acid is used to clean the concrete, neutralize the surface completely and rinse it with water prior to application. Then wait for the concrete to dry out for at least 24-48 hours.

Application

Mixing: This product has two components. The part A should be mixed with the part B thoroughly until uniform. The kits come prepackaged and should be used in their entirety and should not be broken down. If a color pack is used, it is recommended that the color pack be combined with the part A prior to adding the part B and then mixed well with the part B. After the two (or three, if color packs are used) parts are combined, mix extremely well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. Avoid whipping air into the coating. Improper mixing may result in product failure. Once the material is opened, it cannot be re-sealed for later use.

Application - Test the sealer in an inconspicuous area to ensure the desired coverage and appearance is achieved. Pour the mixed material into the application tray. Apply at the rate of 600 square feet per gallon in a uniform manner with a 3/8" nap roller. For uniform appearance, it is critical that the material is not applied thicker than this application rate. Dip the roller in the coating and roll out excess material in the roller tray prior to the actual application to the substrate. Overlap subsequent passes being sure no excess material is applied when overlapping. Make sure the floor has just enough material to cover evenly in a thin application. Finally, re-roll the area in the opposite direction of the first pass applications to level and even the application. The final re-rolling for the entire floor should be in the same direction. Remix the material in the application tray to maintain a uniform mix throughout the application process. If the appearance is not satisfactory, re-roll until the area is uniform in appearance. Maintain temperatures and humidity within the recommended ranges during the application and during the curing process. Make sure the substrate has a suitable epoxy primer that has been de-glossed (see surface preparation above) It is best to maintain a wet edge to avoid roller marks. Direct sunlight or high temperatures may cause visible roller marking during application. Too thick of an application may result in solvent entrapment and product failure. The surface must be dry before the application of this product.



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APPLICATION

Recoating/Topcoating - Test the sealer in an inconspicuous area to ensure the desired coverage and appearance is achieved. Pour the mixed material into the application tray. Apply at the rate of 500 square feet per gallon in a uniform manner with a 3/8" nap roller. For uniform appearance, it is critical that the material is not applied thicker than this application rate. Dip the roller in the coating and roll out excess material in the roller tray prior to the actual application to the substrate. Overlap subsequent passes being sure no excess material is applied when overlapping. Make sure the floor has just enough material to cover evenly in a thin application. Finally, re-roll the area in the opposite direction of the first pass applications to level and even the application. The final re-rolling for the entire floor should be in the same direction. Remix the material in the application tray to maintain a uniform mix throughout the application process. If the appearance is not satisfactory, re-roll until the area is uniform in appearance. Maintain temperatures and humidity within the recommended ranges during the application and during the curing process. Make sure the substrate has a suitable epoxy primer that has been de-glossed (see surface preparation above) It is best to maintain a wet edge to avoid roller marks. Direct sunlight or high temperatures may cause visible roller marking during application. Too thick of an application may result in solvent entrapment and product failure. The Surface must be dry before the application of this product.

Precautions/Safety

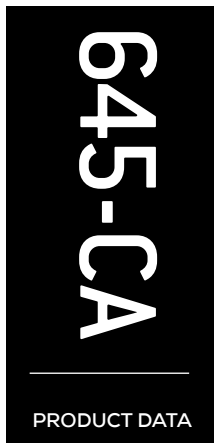
Use appropriate safety equipment during application and handling. Please refer to the safety data sheet (SDS) for additional precautionary instructions before use.

Clean Up

Clean equipment, tools and surfaces with ketone solvent. Unused or old material may be disposed of in a waste disposal site in accordance with local, state and federal laws.

Application Notes:

- Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured. It is best to let the floor remain dry for the full cure cycle. Dependent on actual complete system application, surface may be slippery, especially when wet or contaminated; keep surface clean and dry.
- Some cleaners may affect the color of the floor installed. Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.
- Colors or clarity for clear may be affected by high humidity, low temperatures, or chemical exposure
- For best results use a high quality 3/8" nap roller.
- Slab on grade requires moisture barrier.
- Substrate temperature must be 5°F above dew point.
- Relative humidity must be below 75°F.
- All new concrete must be cured for at least 28 days.
- Colors may vary from batch to batch, therefore, use only product from the same batch for an entire job.
- Improper mixing or too thick of an application may result in product failure.
- Light or bright colors (white, etc.) may require multiple coats or a suitable color coordinated primer to achieve a satisfactory hide.
- Tire contact may cause discoloration or staining.
- Material has to be applied at the recommended thickness per gallon uniformly for proper appearance and development of physical properties.
- The epoxy primer must be abraded/de-glossed for proper adhesion.



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APPLICATION

Best Performance

- Proper application is the responsibility of the user.
- Make sure the most current versions of technical data sheets and safety data sheets are being used.
- Keep out of reach of children and pets.
- Store in a cool, dry place away from direct sunlight. Avoid opened containers, as moisture will cure the material.

Coverage

500 square feet per gallon. Variations in texture and porosity of substrate will affect the coverage and performance of the product.

KreteTek Industries Inc.

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Customer Service and Technical Support

1-855-KreteTek (1-855-573-8383)

Warranty

KreteTek Industries Inc. warrants our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Any use or application other than recommended herein is the sole responsibility of the user. Listed physical properties are typical and should not be construed as specifications. No warranty is made, expressed or implied, regarding such other information, the data on which it is based or the results you will obtain from its use. We shall have no liability for incidental or consequential damages, direct or indirect. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products.

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For professional use only.

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