

Application Instructions for Kool Deck Elite on Existing Concrete



REQUIRED MATERIALS

- Kool Deck® Elite™
- Color-Unit™ pack(s)
- PTA Bonding Agent
- Water

NECESSARY TOOLS

- Mortex Dash Brush
- Clean, 6.5 gallon Bucket (for mixing Kool Deck Elite)
- Clean, 5 gallon Bucket (for mixing PTA)
- 1 Gallon container (for measuring water)
- Heavy-Duty 3/4" Power Drill (300 rpm max)
- Rectangular Blade Mixing Paddle
- Steel Finishing trowels
- Mortex Viscosity Cup
- Nylon Bristle Broom
- Concrete finishing tools

OPTIONAL TOOLS

- Paddle Type Mixer
- Mortex Ad-Tex Sprayer
- Mortex Sprayer
- Mortex Pattern Blade
- 2+ Kool Deck Stamp pads for stamping application only
- Mortex Release Agent for stamping application only
- Mortex Gage Rake for stamping application only

COVERAGE

1 50 bag of Kool Deck Elite will cover approximately 65 ft².

1 Color-Unit pack is required for every bag of Kool Deck Elite.

1 carton of PTA when mixed with water according to instructions will cover approx. 350 ft².

Kool Deck® Elite™ can easily be applied to concrete on the very first day of the concrete pour (green concrete) or to existing concrete as described below.

Kool Deck® Elite™ is a colorless (white) product. Use of an entire Mortex Color-Unit™ pack is required to achieve desired color.

IMPORTANT: Mortex Manufacturing highly recommends a trained crew of 4 – 5 people apply Kool Deck Elite.

BASIC STEPS

1. Remove any existing toppings or foreign matter from the deck.
2. Wash the deck with a water & muratic acid solution followed by a high pressure wash.
3. Apply PTA Bonding Agent.
4. Apply Kool Deck Elite material.
5. Trowel or Stamp.
6. Cover with plastic for two days.
7. Remove plastic and clean up site.
8. Enjoy.

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DETAILED INSTRUCTIONS

SAFETY: Proper safety considerations should be followed during the application of Mortex products and any product should be used in accordance with the MSDS (Material Safety Data Sheet) and all recommendations followed.

TEMPERATURE CONSIDERATIONS: For best results, ambient temperature during the application should be 50 degrees and rising and should not be over 95 degrees.

NOTE: In warm climates, extreme care should be taken if installation is to take place when temperatures are expected to exceed 95°F (35°C.) This is due to the necessity of the topping to cure after application. In freeze-thaw climates, the finished application should be protected against frost and other severe conditions, for a period of 28 days.

If rain or frost is predicted then.....do not apply the products.

CLEAN AND PREPARE CONCRETE

Preparation of the concrete surface is one of the most important factors in the successful use of the PTA Bonding Agent followed by the application of a Kool Deck surface (PTA System). The performances of our products are directly related to how well the surface has been prepared.

The PTA System will only adhere to solid concrete surfaces. Mortex does not recommend that our topping be applied to brick, wood, tile, natural stone, clay or any other surface that is not cementitious as proper adhesion will not occur.

The PTA System will also not adhere to any concrete substrate that is not completely free of dirt, grime, oil, wax, grease, paints, stains, loose toppings, deteriorated concrete, curing compounds or any other foreign matter.

Note: When evaluating the amount of deck preparation work necessary and the question comes up of whether or not you have done enough, the answer is "The More You Do, The Better the Job."

SURFACE PREPARATION

1. Application of PTA System should only be to clean, sound concrete surfaces that are preferably 28 days old.
2. Mask off all areas that are not being coated to protect them from damage. Mask exposed aluminum surfaces and all areas that you wish to protect from over splash. (Cement will corrode and blacken aluminum.) Cover joints and drains with protective tape.
3. Remove deteriorated concrete or other toppings using a scarifier first, then a power washer to remove debris. A 3000 psi pressure washer can be used to remove any paints, plastic coatings, adhesives or polymer toppings.
4. Repair any major cracks or deteriorated areas in the concrete well in advance. Any major repairs of structural damage in the deck or cracks should be done well in advance of the PTA and topping application. Any minor repairs such as damaged edges and/or depressions and holes should be made just ahead of surface application.
5. Wet the deck with water in preparation of the muriatic acid wash. All concrete (even 1 day old, green concrete) must be acid washed with a strong solution of muriatic acid to etch the surface. Never put acid on dry concrete.
6. Mix and apply muriatic acid solution: For older concrete, use an acid solution: 1 part acid to 1 part water. For new concrete, use a 1 part acid to 4 parts water. It is NOT necessary to neutralize the acid with products such as Trisodium phosphate (TSP). It is important to understand that neutralizers like TSP will leave a film on the deck and will break the bond between the concrete deck and the deck topping.
7. Use a nylon bristle broom to scrub the surface.

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NOTE: When the acid is applied, if the acid does not boil and bubble then there is still something on the deck.

8. After one person starts applying the acid mixture and scrubbing the deck another person should follow them using a 3000 psi pressure washer with the nozzle 3-4 inches off the deck to wash the acid off.
9. After the acid is washed off the deck, an additional pressure wash should be given. This time hold the pressure washer nozzle 1 foot from the deck surface.

REMEMBER: Do not neutralize the deck with neutralizers such as TSP as the Kool Deck material will not bond to them.

10. Before the application of the PTA Bonding Agent the deck must be kept wet for a period of at least one (1) hour prior to using PTA.
11. Minor repairs such as damaged edges and/or depressions and holes, should be made at this time. Repair should be damp but without standing water. Brush PTA only into the area to be repaired. Using a rubber float as an applicator, pack holes and depressions with the topping mixture in a thick enough consistency to avoid craze cracking.

MIX & COAT THE SURFACE WITH THE PTA BONDING AGENT

REMEMBER: Before the application of the PTA Bonding Agent the deck must be kept wet for a period of at least one (1) hour prior to using PTA.

Mixing Formula – Follow carefully

- 1 Carton of PTA
- 1.3 Gallons (5 L) water

1. Place 0.5 gallon (2 L) of water in a 5 gallon bucket and add PTA; mix for two minutes with a drill and a rectangular mixing blade. Let mixture rest for three minutes.
2. Add remaining 0.8 gallon (3 L) of water and blend for three additional minutes until proper consistency is obtained.
3. When mixed with water, PTA should have the consistency of milk. Additional water can be added to maintain consistency.

APPLICATION OF PTA INSTRUCTIONS

1. Pour PTA onto deck and use a broom to scrub PTA onto the entire surface (including the repair area). Be sure to cover surface completely.

VERY IMPORTANT: DO NOT ALLOW PTA TO DRY BEFORE THE KOOL DECK ELITE MATERIAL IS APPLIED.

2. Brush away all excess PTA. Base concrete should be visible through the PTA (thin coat is best).

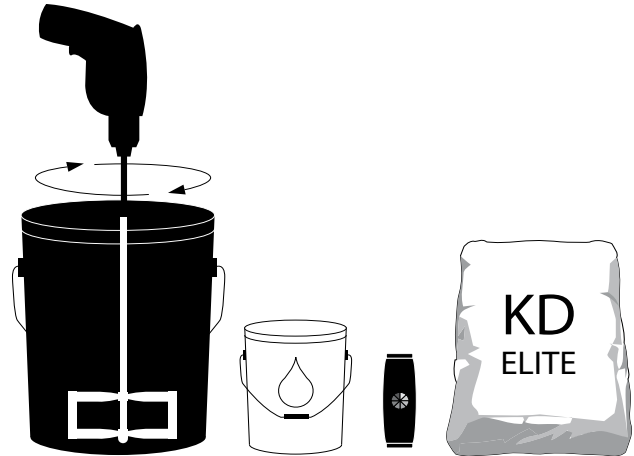
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MIXING OPTIONS FOR KOOL DECK ELITE:

MIXING OPTION 1: MIXING KOOL DECK® ELITE™ IN A 6.5 GALLON BUCKET

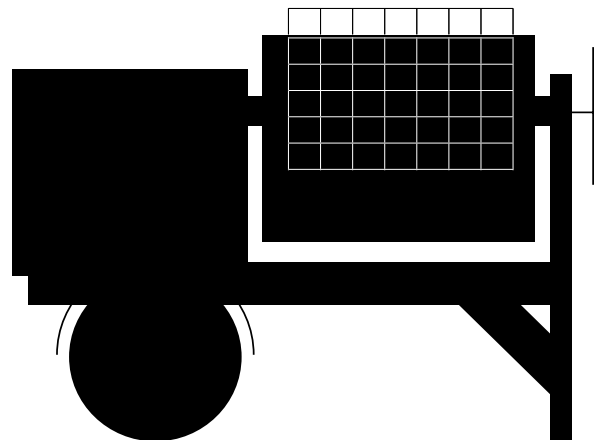
1. Pour 1 gallon (3.79 L) of Water into Mixing Bucket.
2. Mix one (1) entire Color-Unit pack into Mixing water, using the heavy-duty drill with paddle blade.
3. Gradually dump entire 50 lb bag of Kool Deck Elite into colored water while mixing.
4. Mix for two (2) minutes into an even colored, thick paste. Allow the mix to stand for one (1) minute.
5. Restart mixing. Slowly add an additional 2 gallons (7.57 L) of Water to the mix.
6. Use a Mortex Viscosity Cup as a final guide on proper consistency. Mix should empty a full Viscosity Cup in 17 seconds for flat surfaces and 20 seconds for colder weather.



MIXING OPTION 2: MIXING KOOL DECK ELITE IN A PADDLE TYPE MIXER

Note: A minimum of 3 bags of Kool Deck Elite is necessary per batch.

1. Start mixer and add 3 gallons (11.36 L) of water into the mixer.
2. Add 3 entire Color-Unit packs into the mixer.
3. Add 3 entire 50 lb bags of Kool Deck Elite into the mixer.
4. Mix for three (3) minutes into an even colored, thick paste.
5. Slowly add up to an additional 6 gallons (22.7 L) of Water to the mix.
6. Use a Mortex Viscosity Cup as a final guide on proper consistency. Mix should empty a full Viscosity Cup in 17 seconds for flat surfaces and 20 seconds for colder weather.



WARNING: Idle the mixer before checking the consistency of the mix with your Viscosity Cup. Never reach into a mixer with your body.

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APPLICATION OPTIONS FOR KOOL DECK ELITE:

APPLICATION OPTION 1: SPLASHING THE KOOL DECK ELITE MIXTURE

1. Pour the mix from the mixing bucket or paddle mixer into a clean five gallon bucket.
2. Begin applying. Dip the brush into the mix covering the full length of the bristles and start splashing the mixture. If necessary, additional water should be added to the Kool Deck Elite mixture so the material will rain from the brush and have a creamy appearance when splashed. Use a Viscosity Cup according to instructions for best consistency.
4. Splash on the mixture in even, straight, side by side rows, being sure to overlap so as not to leave any holi days (unintentional gaps). The first splashing should be used to cover the deck.

Suggestion: The best texture is achieved by raising the brush high and moving the hand forward, snapping back with the wrist. This motion causes the mix to rain from the brush and gives an even, uniform texture.



5. Resplash the deck just before the first application has lost its water glaze. When applying a light second splash, allow the Kool Deck Elite mixture to rain down from the Dash Brush. The second splashing will drive the Kool Deck Elite surface into high peaks for good texture. The high texture produced by the second splash is necessary to allow troweling time and to give a better pattern. Final material should be 1/8" total thickness.

APPLICATION OPTION 2: SPRAYING THE KOOL DECK ELITE MIXTURE

WHEN USING KOOL DECK ELITE, you should first spray the deck for coverage. Just before the material begins to take up and has lost its water glaze, lightly and quickly pass over the deck again allowing the material to rain down from the wand onto the deck so that high peaks of texture can form. Final material should be 1/8" total thickness. This may be easier accomplished by using a Dash Brush on the second passing.



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TROWELING KOOL DECK® ELITE™

1. Begin to trowel as the water glaze leaves the deck. The pattern is set with the first trowel pass. The trowel must be held perfectly flat with a light hand. (The ideal tool is a Mortex Pattern Blade or a worn, cupped trowel.)
2. The second troweling must follow immediately behind the first. With the trowel held flat, feel for un-even surface, leveling it as you go.
3. The second pass is necessary to bring the deck into a uniformly dense and colorfast deck surface. The finished deck should reveal approximately a 40% smooth and a 60% void surface. This prevents craze cracking since the knolls may expand and contract from the voids.

CURE WITH PLASTIC

VERY IMPORTANT: Immediately after final troweling, cover area with Visqueen (aka Polyethylene Plastic) 2 mil. clear in color and leave covered for precisely two (2) days. Cover the areas immediately with plastic after troweling. Do not wait until you have completed the entire job before covering with plastic. Weight the plastic down with sand so that air cannot circulate under the plastic and dry out the deck. Do not leave covered for more than two (2) days. If the deck surface exhibits white growths when the plastic is removed, wash the surface with water immediately. Use a stiff bristle nylon brush to scrub the surface. During the next 28 days, the deck surface should be washed frequently.

COMPLETION OF WORK

Remove tape masking from surrounds, joints and drains, clean up around the job site and you are finished.

AFTER INSTALLATION

Light walking traffic after 3 days; Normal walking traffic after 14 days; heavy patio furniture and normal use after 28 days.

POINTS TO REMEMBER

- Do not allow the PTA Bonding Agent to dry before applying the Kool Deck ELITE mixture.
- After troweling the Kool Deck material cover the areas with plastic immediately and leave covered for exactly 2 days.
- Make sure the Kool Deck Elite mixture is thin enough. A mixture that is too thick will result in low square foot coverage, poor finished pattern, an accelerated setting time, and more craze cracking. The Kool Deck Elite surface should be 1/8" thick.
- Splash twice. The first splashing should be used to cover the deck. The second splashing will drive the Kool Deck surface into high peaks for good texture.

IN CASE OF RAIN OR OTHER UNFORESEEN DIFFICULTIES

Should it be necessary to cover the deck with plastic, be sure the plastic is removed as soon as possible.

Failure to do so may result in a whitish film on the deck surface.

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NEW ALTERNATIVE

STAMPING THE KOOL DECK® ELITE™ MIXTURE WITH A KOOL DECK STAMP PAD

NOTE: You will need a minimum of two stamp pads.

1. Follow the instructions for Surface Preparation, Spraying or Splashing down the material or you can pour the material onto the surface and use a Gage Rake set at 1/8" thickness to spread out the material.

The Kool Deck Elite material is ready to be imprinted when the glaze has left the material and when you can press down firmly with your finger (15 lbs pressure), make an impression and none of the material adheres to your finger. If an area is drying faster than its surroundings, spray release agent on just that area only to retard setting.

2. Spray Mortex Release Agent on the Kool Deck Stamp Pad only and then lay the pad onto the material. It is not necessary to spray Release Agent onto the material unless you want to stop an area from drying.
3. After you remove the stamp pad, very lightly trowel over the stamped surface to knock off the pad fuzz and remove the wicking from the surface.
4. Continue to stamp the remaining deck making sure to overlap stamp pads.
5. Cover with 2 mil. plastic as described above. Leave covered for precisely 2 days. Weight the plastic down with sand so that air cannot circulate under the plastic and dry out the deck.

Note: If you use a Mortex Flagstone or Slate Stamp Pad, be advised that craze cracking may occur.

If you are applying Kool Deck Elite to an existing concrete deck, follow the instructions for surface preparation, the PTA Bonding Agent and then the Mixing and Application instructions as seen above. Remember to cover with Plastic when application is made to existing concrete.