



Kona-Crete[®]

Decorative, Cool Pedestrian Traffic Coating

TOTAL FINISHED THICKNESS

1/8" to 3/16" (3.2 mm to 4.7 mm)

MATERIAL STANDARDS

- ASTM C150
- ASTM C109
- ASTM C794
- ASTM D2047
- ASTM D2240
- ASTM D4060
- ASTM D638
- ASTM G23
- MIL-D-3134 F

SPECIFICATION CLASSIFICATIONS

- 07 18 13 Pedestrian Traffic Coatings
- 03 01 30.61 Resurfacing Cast-in-Place Concrete
- 03 01 40.61 Resurfacing Precast Concrete
- 03 35 00 Concrete Finishing
- 03 53 00 Concrete Topping
- 07 19 00 Water Repellents
- 09 01 90 Maintenance Coatings
- 09 05 13 Common Finishes
- 09 94 13 Decorative Finishing, Textured
- 09 94 16 Faux Finishing
- 09 97 26 Cementitious Coatings

MATERIALS NEEDED

- Mer-Ko ARC Waterproofing Membrane
- Mer-Ko Fiber Tape
- Mer-Ko Bonding Primer
- Kona-Crete Compound
- Mer-Ko Admix 100
- Mer-Ko Color Pack
- Mer-Ko Antiquing Gel (*option*)
- Mer-Ko Colored Hardener (*option*)
- Mer-Ko Clear Seal WBA
- Mer-Ko Pro-Tect (*option*)

AESTHETIC FINISHES/TEXTURES

Kona-Crete can be applied using a traditional knock-down finish or using advanced design options such as lace texturing, stippling, scoring, stenciling, etc. This wide array of finish options provides aesthetic design flexibility to complement any design motif.

ADVANTAGES

- Seamless, monolithic wearing surface
- Easy to install and maintain
- Excellent adhesion to concrete substrates
- Can be installed over fresh concrete pours no more than 5 hours old and over cured existing concrete surfaces
- Resists degradation from UV, ozone and weathering
- Superior stain resistance
- Long-term durability and performance

PRODUCT DESCRIPTION

Kona-Crete is a portland cement-based coating material designed to provide a decorative, durable, cool surface for pool decks, patios, walkways, breezeways and any other light to heavy foot traffic areas where bare feet are exposed. Whether the surface is a high-profile outdoor recreation/entertainment area or backyard patio and pool deck, Kona-Crete provides a durable, comfortable, aesthetic surface to complement any decor. Integral colorants and accents are available for additional design flexibility.

Kona-Crete is engineered for easy application to freshly poured concrete, contributing to faster installations and on-time project completion. It can also be used over existing concrete surfaces for aesthetic resurfacing and refurbishment projects. Kona-Crete is installed at a minimum 1/8" to 3/16" (3.2 to 4.7mm) finished thickness and offers additional skid resistance and enhanced aesthetics using a variety of finishing techniques and texturing methods.

USES/APPLICATIONS

- Pool Decks & Patios
- Exterior Flat/Walking Surfaces
- Observation Decks
- Outdoor Entertainment & Dining Areas
- Promenade Decks & Verandas
- Commercial & Residential Pedestrian Traffic Areas
- Walkways & Breezeways

COLORS

Kona-Crete is integrally colored with a variety of Mer-Ko Color Packs. There are 12 standard colors available. Refer to the appropriate Color Selection Guides for additional details on color options for Mer-ko's Colored Hardener and Antiquing Gel products. Custom colors are available upon request.

INSTALLATION CONDITIONS

Kona-Crete should not be installed if the surface or ambient temperature is below 40°F (4.4°C) or above 100°F (37.8°C). Do not install during inclement weather, when precipitation is occurring or expected within 24 hours.

SUBSTRATE PREPARATION

Kona-Crete can be installed on freshly poured concrete no more than 5 hours old or over cured existing concrete using adequate surface preparation techniques and application methods.

Fresh Concrete

For freshly poured concrete applications, the timing of the initial concrete slab or deck pour must be coordinated with the application of the Kona-Crete material to ensure application begins no more than 5 hours after the initial pour begins. Application may begin as soon as the surface is walkable.

Concrete must be 3,000 psi or greater and should not contain fly ash. Fly ash migrates to the surface and interferes with the bonding of the Kona-Crete material.

After the base concrete is placed and is ready for finishing, float and trowel to produce an even surface and broom finish. Flaws in concrete application and finishing will not be concealed by the Kona-Crete material.

Existing Concrete

Concrete surfaces require a 28 day minimum cure and must be structurally sound, clean, dry and free of dirt, dust, oil, grease, paint or other contaminants at the time of material application. A minimum deck slope of 2% (1/4 unit vertical in 12 units horizontal) is required for proper drainage. Concrete control joints should coincide with stress relief concentration points, with a maximum spacing of 20 ft (6.1 m).

COVERAGES

Coverage rates are approximate only and can vary due to surface, environmental conditions and installation techniques.

Primer 300-400 ft² (27.9-37.2 m²)/gallon

Bodycoat 35-50 ft² (3.25-4.65 m²)/50 lb. bag
Yield: 1/8" to 3/16" (3.2-4.7mm)

Mer-Ko Color Pack.....Dependent on usage to achieve desired color
Color Selection Guide, color ratio is 1:1 (1 Color Pack : 50 lb bag/compound)

Accessory Products

ARC Waterproofing Membrane.....Dependent on usage

Mer-Thane Fiber TapeDependent on usage

Antiquing GelDependent on usage & application technique

Colored Hardener.....Dependent on usage & application technique

Sealer

Mer-Ko Clear Seal WBA..... 750-1,000 ft² (69.7-92.9 m²)/5 gallon pail

Mer-Ko Pro-Tect 375-875 ft² (34.8-81.3 m²)/5 gallon pail

Concrete surfaces must be properly prepared. Smooth, non-porous substrates must be abraded. Clean the application area using a power sprayer, grinder, shot blaster or scarifier as required to produce a clean, sound substrate.

The surface must be uniform, free of depressions and ridges. All holes must be cleaned and filled with an appropriate Mer-Ko underlayment. All high spots must be removed by chipping or grinding. All cracks and control joints should be treated using Mer-Ko ARC Waterproofing Membrane with Fiber Tape embedded.

MIXING INSTRUCTIONS – FRESH CONCRETE

Substrate Finish

The concrete base material must be clean and free of all debris and foreign matter. The concrete must be rough and wet, using a rough broom finish technique prior to application of Kona-Crete. DO NOT leave a steel trowel finish as the base concrete layer.

Bodycoat

Pre-Blending Color Solution

For integrally colored applications, pre-blend the appropriate color pack with 1 gallon of water (for each bag of compound to be mixed). In a clean 5-gallon pail, slowly add a color pack while mixing with a caged hand drill or mechanical mixer. Mix for 1 minute.

Mixing/ Incorporating Solution into the Compound

Using a clean 5-gallon pail, a caged hand drill or mechanical mixer for larger batches, slowly add the Kona-Crete Compound to the pre-blended solution and mix for a minimum of 15 minutes. While mixing, add the additional water (up to 0.75 gallon additional, for a total of 1.75 gallons per 50lb. bag) as required achieve the desired consistency. Be sure to incorporate material on the sides and bottom of the mixing container to avoid lumps. Let the material stand for five minutes then remix for use, while mixing, adjust the mixture if necessary by adding a small amount of additional water until a uniform, workable consistency is achieved.

When possible, it is often advisable to mix enough Kona-Crete to complete the entire slab at once. This can help prevent mixing errors and ensure a more uniform color throughout the finished material.

APPLICATION INSTRUCTIONS – EXISTING CONCRETE

1. Standard Crack & Joint Treatment

Treat horizontal concrete surface cracks and joints by applying a thick coat of ARC Waterproofing Membrane at a minimum 15 mil (0.38mm) DFT over the immediate surface crack or joint using a trowel, brush or roller, ensuring complete coverage. Immediately after the waterproofing membrane has been applied and while the material is still wet, embed 4 inch Mer-Thane Fiber Tape into the wet waterproofing membrane for a distance of 2 inches on both sides, saturating it completely.

Firmly trowel-push the fabric into the wet membrane material to ensure that it is completely embedded. No dry or fabric material spots should be visible and the fabric should lay completely flat and without wrinkles. Apply additional waterproofing membrane as necessary over areas to ensure embedment.

PACKAGING

Primer

Mer-Ko Bonding Primer..... 1 gallon can 5 gallon/18.9 L pail

Bodycoat

Kona-Crete Compound.....50 lb. bag..... 22.7 kg bag

Accessory Products

Mer-Ko ARC Waterproofing Membrane..... 5 gallon/18.9 liter pail

Mer-Thane Fiber Tape4 inch X 150 LFT/45.7m rolls,
18 rolls per case

Mer-Ko Color Pack.....14 oz. bag*.....0.41 kg bag*

Mer-Ko Admix 100 1 quart/0.9 L jug & 5 gallon/18.9 L pail

Mer-Ko Antiquing Gel 1 quart jug.....0.9 L jug

Mer-Ko Colored Hardener 5 gallon/60 lb. pail18.9 L/27.2 kg pail

Sealer

Mer-Ko Clear Seal WBA..... 5 gallon pail.....18.9 liter pail

Mer-Ko Pro-Tect 5 gallon pail.....18.9 liter pail

*The ratio of color pack to compound is 1:1 for color levels that approximate those on the Color Selection Guide. The amount of colorant used can be adjusted for a lighter or darker color level, a maximum of two standard 14 oz. color packs can be used with each 50 lb. bag of compound.

Allow the entire area to dry a minimum of 24 hours at 70°F (21°C) 50% RH, until dry enough to walk on without leaving impressions, prior to commencing with installation of successive decorative coating applications. The ARC Membrane must be covered with a protective coat within 72 hours.

2. Bonding Primer

Apply Mer-Ko Bonding Primer to the properly prepared substrate. Brush, roller or spray apply and back roll a thin, continuous layer. Do not over apply or create puddling. Allow Mer-Ko Bonding Primer to dry tack-free before proceeding.

Application of Kona-Crete bodycoat material must be performed within 72 hours of the bonding primer's application or the surface must be re-primed.

3. Bodycoat

Pre-Blending Color Solution

For integrally colored applications, pre-blend the appropriate Mer-Ko Color Pack with 2 quarts of Mer-Ko Admix 100 and 0.5 gallon of water (for each bag of compound to be mixed). In a 5-gallon pail, slowly add a color pack while mixing. Mix for 1 minute.

Application over existing concrete substrates using Admix 100 will produce a darker color than when applied over fresh concrete. Review the Kona-Crete Color Selection Guide for additional details. Providing a finished sample of the selected color for client approval is highly recommended prior to starting the application.

Mixing/ Incorporating Solution into the Compound

Using a clean 5-gallon pail, slowly add the compound to the pre-blended solution and mix for a minimum of 15 minutes. While mixing, add the additional water (up to 0.75 gallon additional, for a total of 1.75 gallons of Admix and water per 50lb. bag) until a uniform, workable consistency is achieved. Be sure to incorporate material on the sides and bottom of the mixing container to avoid lumps. Let the material stand for five minutes then remix for use, while mixing, adjust the mixture if necessary by adding a small amount of additional water until a uniform, workable consistency is achieved. When possible it is advisable to mix enough Kona-Crete to complete the entire slab at once. This can help prevent mixing errors and ensure a more uniform color throughout the finished material.

4. APPLICATION INSTRUCTIONS

Screen the mixed material if or as necessary, prior to application. Trowel or spray-apply the first coat of material to the horizontal surface achieving complete coverage at a minimum 1/16 inch (1.6mm). Then, prior to the drying of the first material, apply a second application by trowel, rice dash-brush or spray using a hand help drywall hopper gun or plastering finishing machine to achieve the desired level of finish. When applying a knock down texture, wait until the texture material begins to lose its "moisture glaze" and use a stainless steel trowel to knock down the fresh material to the desired texture level and aesthetic finish.

Allow the area to dry completely, normally overnight depending upon environmental and job site conditions. Sweep the entire deck surface clean of any residual dust or debris, before proceeding with accenting/coloring or topcoat/sealer applications

5. ACCENTING/COLORING

Apply accent colorings using Mer-Ko Antiquing Gel, Mer-Ko Colored Hardener or other artistic materials commonly used in decorative coating applications as designed for the project. Many coloring techniques and effects can be used to achieve the desired results. Refer to the appropriate Mer-Ko Product Data Sheet for accent/colorant application instructions.

6. TOPCOAT/SEALER

Apply a Mer-Ko clear sealer to achieve the desired surface protection suitable for the usage environment. Consult Mer-Ko for specific recommendations.

Topcoat/Sealer Application

When using Mer-Ko Antiquing Gel as an accent colorant, only Mer-Ko Clear Seal WBA or WBU should be used to seal the surface. DO NOT use Mer-Ko Pro-Tect or Mer-Thane 300C Clear Sealer over Antiquing Gel. DO NOT use acid stains to achieve aesthetic effects. Mer-Ko Colored Hardener can be broadcast onto the unsealed material surface as a color wash, to create a unique aesthetic finish; it is applied over the cured material and distributed using a wet sponge. Mer-Ko Pro-Tect, a penetrating water-repellent, can also be used to create a water-resistant surface that improves stain resistance and allows the Kona-Crete material to breathe and maintain a natural looking finish. Pro-Tect is intended for light foot traffic only.

Sweep the entire deck surface clean of any residual dust or debris. Roller or spray apply the selected Mer-Ko topcoat clear sealer to protect the finish and provide a durable, UV resistance trafficable surface. Do not over apply or create puddles. Over-application may result in white deposits/residue that cannot be removed. Allow to dry for a minimum of 1 hour. Then, proceed with a second sealer application in the same manner as the first, ensuring full coverage. Allow to cure a minimum of 1 hour. Allow a 6 hour cure before introducing light foot traffic; 24 hours before returning to full service.

CAUTIONS & LIMITATIONS

- Do not install during inclement weather, when precipitation is occurring or expected within 24 hours.
- Mer-Ko decorative coatings are designed for professional installation.
- Warranties require installation by currently listed applicators.
- Concrete substrates must have a minimum compressive strength of 3,000 psi tested by "point loading" technique.
- Concrete should not contain fly ash. Fly ash will migrate to the surface and interfere with the chemical and mechanical bonding of the material.
- Cementitious materials should be used within 30 minutes, do not re-temper.
- The ARC Membrane should not be exposed for more than 72 hours prior to being covered with the protective coat.
- Not designed for vehicular or heavy steel wheeled traffic.
- Protect all finished surfaces that are not intended to receive the deck coating system materials.
- When using Mer-Ko Antiquing Gel as an accent colorant, Mer-Ko Clear Seal WBA or WBU should be used as the final topcoat. Do not use Pro-Tect or Mer-Thane clear topcoats over Antiquing Gel.
- Kona-Crete provides moderate chemical resistance. Avoid exposure to harsh chemicals or acids.
- Will not bridge seismic cracks or wide construction joints.
- Reflective cracking can occur with substrate movement.
- Mer-Ko Clear Sealer WBA and WBU will enhance, darkening the color level of untreated integrally colored materials.

PHYSICAL CHARACTERISTICS

Abrasion Resistance	0.20 gram loss (ASTM D4060, H-22 Wheel, 1,000 gram load for 1,000 cycles)
Adhesion	> 250 psi (ASTM C794)
Compressive Strength	>2,500 psi (ASTM C109) at 28 days cure
Indentation Characteristics	Complies (MIL-D-3134 F)
Resistance to Aging	2,000 hours, No visual signs of failure (ASTM D756, AC 39)
Surface Hardness84 (ASTM D2240, Shore D)
Tensile Strength	> 625 psi (ASTM D638, ASTM C190)
Thickness	1/8" to 3/16" inch (3.2 to 4.7mm)
Weight	< 2 lbs./ft ²

CARE & MAINTENANCE

Kona-Crete is designed to provide easy cleanability and low maintenance. To extend the life of the surface to its maximum potential, establish a regular maintenance schedule for washing and cleaning the decorative surface. All corrosive substances, chemicals and organic materials should be cleaned and rinsed away immediately to prevent damage and/or staining. Test all cleaners in an inconspicuous area to ensure compatibility. Use a mild soap and water solution. TSP (Tri Sodium Phosphate) or all purpose cleaners and a stiff broom or scrub brush (polypropylene, nylon, or horsehair) to remove stubborn contaminants on the decking surface. Rinse the deck thoroughly after scrubbing. No solvents should be used to remove contaminants as this may cause damage to the deck surface.

The clear topcoats are designed to resist direct exposure to environmental elements and withstand normal wear. When traffic patterns become visible or heavy impacts mar the surface, the topcoat should be re-applied to restore aesthetic appeal. Surfaces should be re-sealed every 3 years for best results, or per the schedule listed on the warranty issued. Refer to Mer-Ko's Decorative Coatings Care & Maintenance Guide for more detailed information on proper care and re-sealing.

STORAGE & HANDLING

Store Kona-Crete materials in a dry environment at temperatures between 40°F and 100°F (4°C and 38°C). Do not store in direct sunlight. Keep Kona-Crete bags off the ground and prevent exposure to moisture during transport and storage. Promptly clean tools and equipment with water and mild detergent. Always wear proper safety equipment, including particle mask, eye protection, and gloves when mixing and/or applying these products.

SHELF LIFE

The shelf life for most products is six (6) to twelve (12) months from the date of manufacture in the original, unopened container when the material is properly stored. See the particular data sheet for complete product storage and use information.

WARRANTY

Five (5) year warranties are available dependent upon product selection and project design. Contact Mer-Ko's Customer Service Department for specific warranty information.

Any recommendation or suggestion relating to the use of MER-KO products made via current technical literature, marketing materials, technical application guides, specifications, and the like, or in response to specific inquiry or otherwise, is based on data believed to be reliable. However, the products and information are intended for use by Buyers having requisite skill and know-how in the industry. Therefore, it is the responsibility of the Buyer to satisfy the necessary requirements of suitability of the products for its own particular use, and it shall be deemed that Buyer has done so, at its sole discretion and risk. Variation in environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. Mer-Ko believes the information contained herein is true and accurate as of the date of publication. Information contained here is for evaluation only. Mer-Ko reserves the right to modify and/or change products or literature at any time and without prior notice.



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