



How to Apply DCI Concrete Overlay



DCI Concrete Overlays are durable, ultra-strong, and easy-to-apply add water only mixes. Ideal for decorative concrete projects indoors and out including:

- Resurface Old, Damaged or Soiled Concrete for significantly less than the cost of removal
- Cost Effective Alternative to Poured Concrete Countertops
- Patch and Repair Holes or Cracks with [DCI Concrete Patching Compound](#)
- Suitable for Stamped, Stenciled or Artistic Finishes
- Color with [Acid Stain](#) or [Concrete Pigment](#) - Choose from Over 100 Color Possibilities

Begin with Sample Projects: Direct Colors offers [3lb. overlay samples](#) for smaller projects and testing. To ensure the best possible project outcome, test application technique and color using sample products first.

Coverage: Actual coverage rates will vary depending on the texture, porosity, condition of the concrete, application method and weather conditions. Estimates are based on a per 50 lb. box of material mixed to the appropriate consistency for each coat depth.

- 1/4 inch = 20 to 25 sq. ft.
- 1/8th inch skim coat = 50 to 60 sq. ft.
- 1/16th inch skim coat = 100 to 120 sq. ft.

Mixing Instructions: For bucket-mixing, pour one gallon of water into a five gallon pail first. Slowly pour the contents of a 50 lb. box of overlay into the bucket while mixing continuously with a drill mixer. For best results, use a birdcage, high-shear paddle for bucket mixing. Thoroughly combine the water and overlay to insure the dry polymer is saturated and properly dispersed. For a thicker consistency, use less water. To thin the overlay during application, add water as needed up to a maximum of one additional gallon. If using colored concrete pigment, water should be kept uniform for every box of overlay to avoid color discrepancies. Pot life for the overlay is approximately 45 minutes and can be extended by 15 minutes by using ice cold rather than room temperature water. Ambient temperature will also affect pot life length with cooler temperatures marginally extending and hotter shortening the expected pot life.



To spray the overlay, add up to one gallon of additional water per box of *smooth* texture overlay until the mixture resembles a thin pancake batter suitable for spraying at 25 psi. Complete texture overlay should be sprayed as a basecoat only.



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Include DCI concrete pigment to the dry overlay material to create one of over [100 available colors](#). We offer [color packs](#) specially-measured to produce the same color in every box of overlay making the process much easier and faster.

Mixing instructions for floor and countertop applications are the same except for vertical surfaces such as countertop edges and walls. (See "Applying overlay to edges/ vertical surfaces under countertop application")

Cure Times:

- Skim coat of 1/16th to 1/8th inch = minimum of 12 hours
- Add 4 hours for each additional ¼ inch of depth to a maximum of 1"
- Add 25% more time for high humidity conditions

Floor and Outdoor Concrete Applications



Surface Preparation: Repair any slightly damaged areas such as carpet tack holes or similar imperfections with [DCI Concrete Patching Compound](#) and sand flush with the floor before overlaying. Allow to cure for six hours and sand using a 100-grit pad. Expansion joints should be thoroughly cleaned and free of all debris before overlaying. Lay a piece of string in the expansion joint and apply the overlay. Pull the string immediately to reveal the expansion and allow to dry for 12 hours. Saw cut with a skill saw and a diamond blade if needed. Structural cracks should be ground out using a tuck point diamond wheel, thoroughly cleaned and the crack blown out with leaf blower until dry and completely free of debris. Fill with a two-component epoxy concrete filler and allow to dry according to the manufacturer's instructions. Proceed with the overlay application.

For floors with more widespread hairline cracks, chips or divets, apply a skim coat of no more 1/8 in. Slabs that have significant damage such as spalling can be overlaid but the existing concrete must be structurally sound with no foundational cracks and all loose

concrete material **entirely** removed before proceeding. Use a wet/dry vacuum or leaf blower to remove dirt, organic material and debris. Wash with a degreaser and water solution and rinse thoroughly.

Machine-troweled or tiled floors should be profiled with a sander using a 60-80 grit pad to "scuff" the surface. Profiling allows the overlay to adhere more securely to the floor. Floors can be chemically-profiled using a full-strength application of DCI Hard Troweled Floor Prep.



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Application Techniques: For a smooth appearance on a coat depth over 1/8", finish the overlay with a gauge rake and a magic trowel. For a 1/16th to 1/8th inch skim coat, apply the overlay with either a pool trowel or a magic trowel. The magic trowel will allow a less-experienced person to achieve a more uniformly smooth surface. Use a gauge rake set to the desired depth on floors with up to a ¼ inch overlay. Follow with a magic trowel to smooth out any rake marks or other imperfections. For a textured finish, spray the trowel with [DCI Liquid Release Agent](#) and handwork the overlay with a pool trowel.

Approximate working time for overlay once applied to the substrate:

- Skim Coat: 3-5 minutes
- 1/8th inch coat: 5-7 minutes
- ¼" inch coat: 10-12 minutes

Ambient and surface temperature will affect working time with cooler temperatures marginally extending and hotter shortening the expected working time. Do not attempt to apply Concrete Overlay to surfaces below 40F or above 85F. Hot temperatures can be controlled by moistening the surface with water prior to application.

Spraying Overlay on Horizontal Surfaces: Select [DCI Smooth Overlay](#) and mix according to the instructions above for spraying overlay. Spray a single coverage coat from a flatwork texture gun at 25 psi. Hold the sprayer at least 6 inches from the surface during application to minimize rebound. Mix one box at a time as needed. For a more coarse texture, spray down without further finishing. For a smoother texture, use a pool or magic trowel immediately after spraying. Spray trowels with DCI Liquid Release Agent before use. Allow drying time of 6-8 hours.



Stamping Overlay: Select DCI Complete Overlay for stamping and apply at ¼ in. depth. Choose stamps or texture mats intended for use with overlay. Add 1 gallon of water per 50 lb. box, ice water if stamping in hotter temperatures. Use a gauge rake set to the desired depth on surface. Follow with a [magic trowel](#) to smooth out any rake marks or other imperfections. Allow to dry until the surface can be depressed without sticking. Apply DCI Liquid Release Agent to the stamps, tools and overlay to prevent sticking. Depending on size of the job and the mats, use at least three stamps or texture mats along with one floppy for any project up to 100 square feet.

For 100-1500 sq. ft. projects, use a set of five stamps or mats and floppy. Time is limited so make the choice according to crew size and ability. Assuming 75F and a 100 sq. ft. project, allow for twenty minutes stamping time – slightly more time if colder, less time in hotter temperatures. If stamping a larger area, one person should be mixing overlay continually while others are applying and stamping. If the work cannot be completed at one time, do not stop applying in the middle of a section or floor. End at logical separation, such as an expansion joint, for the best overall finished appearance.



How to Apply DCI Concrete Overlay

Spraying Overlay for Stencils: Select DCI Complete Overlay as a basecoat for stenciling. Follow the mixing instructions above for spraying overlay. Spray from a flatwork texture gun at 25 psi. Hold the sprayer at least 6 inches from the surface during application to minimize rebound. Mix one box at a time as needed. Allow to dry for 6 hours before applying the stencil. Affix the stencil and then carefully spray the top or color smooth texture overlay coat in the same manner. Pull the stencil after 10 minutes drying time.

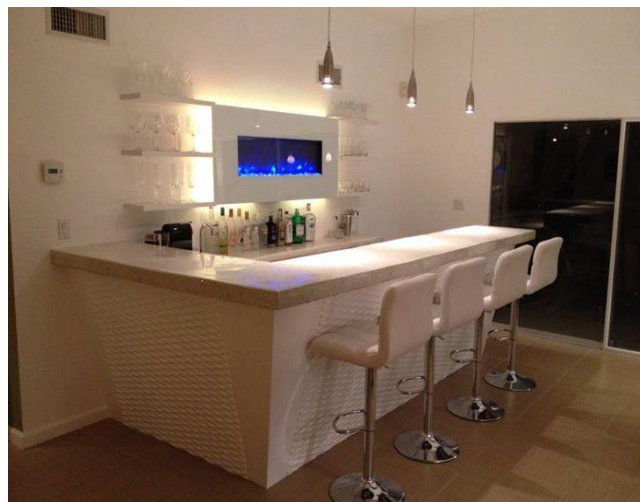
Countertop Applications



Overlaying a Plywood Countertop Surface: Select $\frac{3}{4}$ " plywood with a sturdy base that exhibits no flex. Attach hardy backer board (or similar concrete board) to the plywood using non-corrosive screws. Fill all seams with a two-part epoxy and allow for a 16 hours dry time. Once epoxy has cured, sand the areas down flush using 180-grit non-loading sandpaper. Thoroughly clean all dust and debris from the surface in preparation for the overlay. Do not apply overlay directly to unsealed plywood. Always seal wood first using a urethane or lacquer based sealant. Allow to dry according to manufacturer's recommendations prior to overlaying.

Overlaying a Formica or Tile Countertop: Ensure the existing countertop is well reinforced and exhibits no flex. Scuff the surface with a 120-grit non-loading sandpaper. Wipe the area down with a damp cloth to remove any dust and debris and allow to dry. Fill all seams with a two-part epoxy and allow for a 16 hour cure time. Once cured, sand the areas down flush using 180-grit non-loading sandpaper. Thoroughly clean all dust and debris from the surface in preparation for the overlay. Overlay the vertical surfaces before the countertop face.

For tile countertops, scuff the surface with a 120-grit non-loading sandpaper. Wipe the area down with a damp cloth to remove any dust and debris and allow to dry. Fill all seams with a two-part epoxy and allow for a 16 hour cure time. Once cured, sand the areas down flush using 180-grit non-loading sandpaper. Thoroughly clean all dust and debris from the surface in preparation for the overlay. Overlay the surface and allow to dry for 3-6 hours or until the overlay achieves a uniformly light gray color. Apply a second skim coat and smooth with a magic trowel to prevent tile "ghosting" unless that is the desired finish.





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Trowel-On Vertical Surfaces: To trowel overlay on to vertical surface, the overlay consistency needs to be stiff enough to roll into a ball and stick it to the countertop surface. Wear vinyl gloves when using this method. Spray a pool trowel with [DCI Countertop Form Release](#) and trowel material smooth in an upwards motion. Scrape the excess overlay off the countertop face with the trowel. Vacuum clean if needed.

Spray-On Vertical Applications: Spray using a drywall texture gun. Mix the overlay to apply to the edges (about a quart of wet mix per 100 square inches) to the consistency of a thin pancake batter. Depending on the texture gun used, rotate the nozzle or tip to the ¼" or 6 millimeters or select the same attachment if the gun has interchangeable tips. Set air pressure to 25 psi and spray material on to the surface. Once applied, spray the trowel with DCI Countertop Form Release and trowel the overlay smooth in an upwards motion. Scrape the excess overlay off the countertop face with the trowel. Allow to dry for 3-6 hours or until the overlay achieves a uniformly light gray color. Apply one additional coat for a more even finish and to avoid shadowing at the seams. Scrape any overspray together on countertop surface and vacuum.

Applying Overlay to Top Surface: Once the vertical application is complete, mix the remaining overlay to a thin pancake batter consistency and pour it onto the surface. Spray the trowel with [DCI Countertop Form Release](#) and trowel the mixture down smooth with a magic trowel. If acid staining, allow for a 24 hour cure time before proceeding.

Polishing: DCI One-Step Overlay may be polished only when applied at a minimum of ¼" depth or more.

Staining and Sealing: DCI One-Step Overlay is formulated to produce the richest, most robust acid stain colors. For best results, spray any of our [Concrete Acid Stain](#) colors on fully-cured overlay for diverse and beautiful floor or countertop. For color depth and contrast on integrally-colored stamped or textured concrete, spray [DCI Liquid Colored Antique](#) to patio, sidewalk, and driveway applications prior to sealing. All decorative concrete surfaces must be [sealed and re-sealed](#) every 2-3 years depending on exposure and wear.

Product Limitations: Avoid applying DCI One-Step Overlay onto unsealed wood or wood composites. Do not apply overlay in excessive heat/wind conditions which can cause shrinkage and cracking or to surfaces below 40F or above 85F. Concrete less than 30 days old, wooden joist supported upper story floors, salt contaminated surfaces, and slabs with excessive ground water or hydrostatic pressure can cause the overlay to improperly adhere or crack. Allow for 24 hours of drying time before sealing the surface.

Warranty: The DCI One Step Overlay is warranted to be of uniform quality within manufacturing tolerances. As the manufacturer has no control of the use of the product, no warranty, expressed or implied, is made as to the effects of such use. Seller's and manufacturer's obligation under this warranty is limited to the refunding of the purchase price of that portion of the material proven to be defective. For more information on DCI Concrete Overlay visit: www.DirectColors.com.