



## APPLICATION INSTRUCTIONS: CASTORCRETE BIO FLOOR HDQ

### GENERAL

CastorCrete® Bio Floor HDQ has been engineered as a hybrid flooring system consisting of our CastorCrete® SL urethane cement slurry mortar, topped with an epoxy colored quartz system. The typical system thickness is 3/16 to 1/2 inch thick.

### MOISTURE VAPOR EMISSION TESTING

All interior concrete floors are subject to possible moisture vapor emission and/or excessive alkalinity that could ultimately cause coating failure. Prior to application, calcium chloride moisture testing in accordance with ASTM 1869-04 and/or relative humidity probe testing in accordance with ASTM F 2170 should be performed. In the event that these tests result in readings of  $\geq 10$  lbs per 1000 sq. ft. per 24 hours, or relative humidity  $\geq 85\%$ , please refer to Arizona Polymer Flooring VaporSolve® product information or go to [www.vaporsolve.com](http://www.vaporsolve.com).

### SURFACE PREPARATION

Concrete surfaces must be clean, dry and structurally sound. Surface must be shot blasted or scarified to ICRI CSP 3-5. Keyways must be cut at 1/4 inch deep by 3/16 inch wide, 6 inches from all perimeter walls, machinery pedestals, both sides of control joints and at regular intervals spaced 10-12 feet apart throughout the flooring system. All floor drains and termination points must have a 1/4 inch deep by 1/4 inch wide keyway. Never feather edge CastorCrete SL, always turn it into a keyway. Priming of concrete substrates is not usually required under typical circumstances. However, due to variations in concrete quality, surface conditions, surface preparation and ambient conditions, reference test areas are recommended to determine whether priming is required to prevent the possibility of blisters, pinholes and other aesthetic variations. If priming is required, use Epoxy 100 applied at the rate of 200-250 sq. ft. per gallon. Proceed with CastorCrete SL when primed surface has become tack-free.

### MIXING INSTRUCTIONS

Pour entire contents of parts A, B and C into mixing container and mix for 30 seconds, then slowly add part D (aggregate) over a period of about 15 seconds. Once all of the components are incorporated, mix for an additional 30 seconds. Mixing should be done with a Kohl type mixer or any other mixer designed to mix heavy mortars. Mixed material should be placed immediately. It is recommended that multiple mixing containers be used to ensure an adequate supply of fresh material.

### APPLICATION OF SLURRY

For small areas, CastorCrete SL can be metered out and finished with a steel trowel. For large areas, a gauge rake is required. Once the slurry is raked to the desired thickness, immediately roll the surface with a looped roller or a spiked roller to remove any imperfections and to bring the resin to the top. It is very important to keep a wet edge. Each batch must be placed within 10 minutes of the previous batch. Failure to do this could result in a visible tie in line. Allow CastorCrete SL to cure for 12 hours prior to application of Color Quartz.

### GRINDING OF FLOOR

The purpose of grinding the floor is to remove any trowel marks and imperfections. This can be done using a planetary type grinder using 30-grit diamonds. It is very important to grind the floor moving from east to west and then from north to south. Once all grinding is complete, vacuum the floor thoroughly.

### APPLICATION OF THE GROUT COAT AND QUARTZ BROADCAST

Apply Epoxy 400 resin at the rate of 200 sq. ft. per gallon using a flat squeegee, making sure to avoid leaving squeegee lines or puddles. A mechanic wearing spiked shoes should roll the material using a 3/8 inch nap non-shedding roller. Within 20 minutes of applying the grout material, you must broadcast your decorative media. For color quartz, use an application rate of .5 lbs per sq. ft.

**APPLICATION OF TOP COAT**

Once the grout coat material has cured hard, remove all the loose aggregate and then scrape and vacuum the floor. Apply selected top coat per the following: Epoxy 400 at the rate of 100-125 sq. ft. per gallon / Polyurethane 100 or Polyurethane 100 VOC at the rate of 250-350 sq. ft. per gallon / Polyurethane 325 at the rate of 350-400 sq. ft. per gallon, using a flat squeegee and then back rolling the material with a 3/8 inch nap non-shedding roller.