



**EPOXIES • MMA • URETHANES
COLORED QUARTZ AGGREGATES**

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POLY-CRETE SLB

IMPORTANT! Read these instructions carefully several days prior to starting your work. Seek answers to any questions you may have before you begin. DUR-A-FLEX, Inc. maintains a Technical Staff that will be glad to answer your questions and give you advice pertaining to your particular installation. Large areas will require two or more mixers

POLY-CRETE SLB is a 100% solids aromatic cementitious urethane system with a broadcast aggregate. This system is installed at 3/16" thick. POLY-CRETE SLB uses a natural quartz aggregate. **NOTE:** Do not apply at a temperature below 50°F (10°C) or above 85°F (29°C). Do not apply to unreinforced sand cement screeds, asphalt or bitumen substrates, magnesite, copper, aluminum, metal, or elastomeric membranes.

STORAGE CONDITIONS

POLY-CRETE SLB must be stored dry. Exposure of the aggregate to moisture for an extended period will cause lumps. Do not allow resins to freeze. Frozen (crystallized) hardener must be heated above 100°F to melt crystals. The shelf life is 12 months from the ship date in the original unopened containers.

SURFACE PREPARATION

Surface should be profiled, clean, dry, oil free and sound, Shot Blasting or grit blasting are the preferred preparation methods. Please refer to the master "Surface Preparation Guide" for more information. Never feather edge POLY-CRETE SLB, always terminate in keyway groove at doorways and exposed edges. Refer to architectural drawings for details. Do not apply at temperatures below 50°F or above 85°F.

MIXING AREA

Select a convenient mix area as close as possible to the application area and protect the surface from spillage by covering with a layer of cardboard and/or a sheet of plastic. Be generous with the amount of space allocated for this function. Do not mix this product in direct sunlight or when temperatures exceed 80°F. Exposure to high temperatures will greatly reduce the working time of this product. **DO NOT MIX UNTIL READY FOR IMMEDIATE USE.** Priming or sealing of the substrate is not required. On oily concrete slabs, SIMONIZ 969 Detergent/Degreaser is recommended. Very porous substrates may be pre-primed with POLY-CRETE TF (allow to cure a minimum of 6 hours @70°F) to prevent resins from being absorbed prematurely by substrate

APPLICATION METHOD

POLY-CRETE SLB is applied by 1/2" V-notched squeegee method", and is typically applied at a thickness of 1/8". With broadcast and topcoat, POLY-CRETE SLB has a finished thickness of 3/16". Lay out installation in sections to allow full width to be finished in 15 minutes (@70°F) or less to assure absence of placement lines. (It is approximately 25 feet for

- A. POLY-CRETE SLB is supplied in pre-measured units consisting of one pail of resin, one container of hardener and one bag of aggregate (powder). Pour resin into a 6-gallon pail; scrape bottom and sides to assure that all pigment is transferred. The resin and hardener should be pre-blended for approximately 30 seconds. A 4-inch dispersion blade is recommended for this product together with a high speed drill 800rpm minimum to shear the cement based aggregate into the system and avoid lumps. Spiral mixing blades and low speed drills are not recommended to use with this product. Gradually add aggregate until a homogenous mix is attained. (Approximately 1 minute) THOROUGH BLENDING IS MANDATORY. A properly mixed batch applies easier and has a uniform surface appearance. Incomplete mixing will cause an inconsistent finish or possible blistering. Have two mixing buckets that are rotated to assure minimum time between mixes. To avoid irregular curing or blisters, regularly clean the mixing blade and pail to avoid combining fresh material with older batches. Material should be applied directly onto the wet edge immediately after mixing.
- B. Pour the entire batch onto the floor and spread with a 24" 1/2 V notched squeegee. To avoid transition lines between mixes, it is very important that the material is poured directly onto the wet edge.
- C. When applying on level or surfaces sloped up to 1/4"/foot, the product is used as supplied. For more steeply sloped surfaces such as ramps that are up to 4 inches/foot, adding 1 gallon of Q11 (Q-Rok #3) to each mix will prevent sagging while still providing a uniform surface after loop rolling.
- D. Check pin rake every 1000 sq feet for pin wear. Adjust or have new rake ready to avoid interruption in process.
- E. Trowel edges, drains and around equipment supports with an even pressure and a low angle trowel in a sweeping motion to complete troweling. This ensures that new batches of material are blended together with no transition lines for continuity of finish.
- F. Immediately roll and then cross roll with a 18" loop roller to eliminate lines and help release air.
- G. Loop Rolling must be completed immediately after leveling of material to eliminate any residual roller marks in the finished surface (Within 12 minutes of mixing at 70° F).
- H. The aggregate must be broadcast UP into the air while dispersing evenly and vertically at an approximate rate of 1 pound per sq. ft. into the wet surface. Apply at a rate of two mixes behind the wet edge ensuring that the surface

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within 15 minutes of mixing each batch. Do not loop roller areas that have been broadcast.

The time window at which SLB is broadcast is extremely critical:

- at 80°-90° F you have 12 minutes in which to broadcast
- at 70°- 80° F you have 15 minutes in which to broadcast
- at 55° - 65° F you have 17 minutes in which to broadcast
- Too early and the surface may become uneven
- Too late and the aggregate may not penetrate into the matrix surface.
- Allow to cure for a minimum of 10hrs (@70°F). Remove excess aggregate by brush. (Do Not Sand)

JOINT TREATMENT & REPAIRS

Control joints and expansion joints can be treated several ways depending upon traffic loads, temperature, movement in substrate and ability to repair a crack should one occur in a finished floor. Joints that have already cracked and have no potential for movement can be pre-filled with a mixture of DUR-A-GLAZE #4 and aggregate. Joints that might have the potential for movement can be filled with ELAST-O-COAT or NO SAG. It should be noted that if a joint moves, there is the potential for a crack to transfer through the finished floor. It is up to the facility owner to decide if this is acceptable. The safest way to install the joint is to saw cut through the finished floor, install a backer rod and fill the joint with POLY-FILL UJF. Holes may be patched with DUR-A-CRETE or POLY-CRETE WR. Prime with GLAZE #4 FAST. Do not allow primer to puddle during repairs. Allow all patches and joint materials to cure dry before proceeding with installation of the POLY-CRETE SLB floor.

PREPARATION OF PLYWOOD FOR APPLICATION OF POLY-CRETE SLB

1. Plywood should be new and free of contamination (clean and dry). Marine grade plywood is recommended.
2. Installations over existing concrete or substrates with a possible chance of moisture contamination transfer should be isolated using a polyethylene vapor barrier; all joints should be taped according to manufacturer's instructions. Raised platforms should have consideration for airbricks in outside walls to reduce the risk of excessive dampness.
3. It is recommended that 2 layers of plywood be installed offset at joints to reduce flexing between joists. Plywood should be at least ¾" thick.
4. Plywood should be positively fastened with high quality construction adhesive and recessed screws at 6" on center screw pattern.

JOINT GUIDELINES

Refer to the [Joint Guidelines](#) for complete details on our website.

5. Bandage joints using a mixture of ELAST-O-COAT 100% solids epoxy and NO SAG #1, embedding a minimum of 8" of close weave fibreglass matting into the wet resin.
6. All key ways should be installed by using a Skill type saw with a ¼" wide blade set to ¼" deep. (Concrete diamond cutting blades will burn and not cut wood)

7. Any drain detail must be keyed a minimum 2 inches away from the drain edge with the outside exposed edge removed to a slope using a wood chisel. Doorway thresholds should be treated in a similar way to allow a smooth transition for the termination of the material.

8. Detail such as cold joints should also be cut using a Skill saw detail as per concrete CAD drawing detail.

9. Plywood should be thoroughly vacuumed prior to installation.

TOPCOAT INSTRUCTIONS

KT Topcoat: Measure out 1/2-gallon hardener and 1-½ gallons of resin. Follow the same pouring and mixing procedures as described above. Mix for 2 minutes. Apply the topcoat with a 12" flat squeegee. Move squeegee in a continuous semi-circular motion from left to right to left, etc. Applying steady pressure on the squeegee is necessary to obtain a uniform appearance. Do not advance squeegee too rapidly. Each semi-circular swing should advance approximately 4 inches. Remove all puddles and ridges before they are out of reach. Start movement of squeegee in a dry area, move onto wet glaze and continue to move squeegee until it reaches a dry edge. Immediately backroll in a direction perpendicular to the squeegee while using a short nap, 3/8" non-shed roller. POLY-CRETE CF and POLY-CRETE TF may also be used to top coat POLY-CRETE SLB systems. Refer to Poly-Crete TF or CF application instructions. DUR-A-GLAZE NOVOLAC is also appropriate to use as a topcoat for POLY-CRETE SLB systems.

CURE

Allow a minimum of 8 hours cure before light foot traffic at 70°F, and a minimum of 24 hours is required at 50°F. Additional time must be allowed for heavier loads or lower temperatures. Contact the DUR-A-FLEX Technical Department for more information.

LIMITATIONS

Exposure to ultraviolet light will change the color of POLY-CRETE SLB. Sunlight and metal halide lighting will cause yellowing without affecting the performance. As an option, a coat of POLYCRETE CF can be applied to prevent ambering. Many acids will cause a bleaching of pigment without affecting performance.

CAUTION

Follow the Hazardous Materials Identification System labeling guide for proper personal protective equipment to use when handling this product. Note that POLY-CRETE SLB contains crystalline (quartz) silica and Portland cement. Use only as directed. **KEEP OUT OF REACH OF CHILDREN.**

Do not reseal moisture-contaminated hardener. This will result in carbon dioxide generation and possible violent rupture of container

MOISTURE CONCERNS

Please refer to the [Floor Evaluation Flow Chart](#) in the Contractor's Center of our website for a step-by-step process to determine the condition of the concrete. Typical Moisture levels should be no greater than 92%RH and no more than a yellow rating on the Nautilus Floor Evaluation Chart.

Before using any DUR-A-FLEX, Inc. product, be sure the Material Safety Data Sheet is read and understood.