

## **HYBRI-FLEX AB**

**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.

### **SYSTEM OVERVIEW**

HYBRI-FLEX AB is a 100% solids low odor color quartz system composed of a 1/8" POLY-CRETE MD SL body coat with a natural flintshot quartz broadcast, a SHOP FLOOR broadcast coat, and two pigmented ACCELERA topcoats yielding a total system thickness of 1/4".

### **SURFACE PREPARATION**

Surface should be profiled, clean, dry, oil free and sound. Shot Blasting is the preferred preparation method. Please refer to the master 'Surface Preparation Guide' for more information. Never feather edge POLY-CRETE SL, always terminate in keyway groove at doorways, drains and exposed edges. No epoxy coatings should be applied unless surface temperature is a minimum of 5 degrees F above dew point. See Dew Point Calculation Chart on our website for detailed instructions.

### **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.

### **MIXING AREA**

Select a convenient mix area and protect the surface from spillage by covering with a sheet of plastic and a layer of cardboard. Be generous with the amount of space allocated for this function. The more comfortably your mixer works, the less likely you are to have a "mix error". Please refer to our Mix Station video on our website for more information.

### **STORAGE CONDITIONS**

POLY-CRETE MD SL must be stored dry. Exposure of the aggregate to moisture for an extended period will cause lumps. Do not allow resins to freeze. The shelf life is 6 months from the ship date in the original unopened container. Products must be stored in temperatures no less than 60°F and no greater than 85°F.

### **JOINT TREATMENT & REPAIRS**

Control joints and expansion joints can be treated several ways depending on 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 and NO-SAG #1. 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 an appropriate joint filler. Holes and cracks that are less than 1/4" can be patched with POLY-CRETE MD. Holes deeper than 1/4" should be wet primed with POLY-CRETE TF and patched with POLY-CRETE WR. Do not allow primer to puddle during repairs. Allow patches to cure for 3-5 hours before proceeding with the installation of POLY-CRETE MD SL.

### **APPLICATION METHOD**

Proper planning is essential for satisfactory appearance of the finished floor. Lay out installation in sections to allow full width to be finished in 20 minutes (@70°F) or less to assure absence of placement lines.

NOTE: For each application of material and before mixing, mark your batches to ensure you achieve your spread rate targets. This is best accomplished by dividing your target spread rate by the width of the area being coated (or your planned wet edge). Example: If your spread rate is 100 square feet and your area is 20 feet wide you would make a mark every 5 feet (100 divided by 20 = 5).

### **PRIMER**

In most applications HYBRI-FLEX AB does not require a primer. However, very porous substrates should be primed first with POLY-CRETE TF.

- A. POLY-CRETE TF is supplied in pre-measured units consisting of

one pail of resin, one container of hardener and one bag of aggregate (powder). Pour the POLY-CRETE TF resin into a 2-gallon pail; scrape bottom and sides with a mix stick to assure that all material is transferred to the mix bucket. Use the Poly-Crete pail to scrape the mix stick, and never scrape mix stick on the side of the mix pail. Measure 1oz of POLY-CRETE HF ACCELERATOR and add it to the mix bucket. Pour the entire POLY-CRETE TF hardener into the center of the mix bucket. Using a 1/2" 850 RPM drill with a 4" dispersion blade, mix the resin and hardener for 30 seconds. Slowly add the POLY-CRETE TF aggregate to the resin and hardener and mix at 850 RPM for 1 minute. **PRODUCT MUST BE MIXED WITH A 4" DISPERSION BLADE AND A 1/2" VARIABLE SPEED 850 RPM DRILL. DO NOT ADD HARDENER TO RESIN UNTIL BATCH IS READY FOR MIXING. FAILURE TO ADD ALL POLY-CRETE TF POWDER WILL RESULT IN IMPROPER CURE OF MATERIAL.**



- B. Pour the entire batch onto the floor in a 4 to 6" ribbon. Using an 18 inch 3/8" nap roller, roll the material at 60 Sq. Ft. per kit. Cross roll the material to ensure there are no puddles. Allow to cure for 4 hours @ 70°F.

### **BASECOAT**

- C. POLY-CRETE MD SL is supplied in pre-measured units consisting of one pail of resin, one container of hardener and one bag of aggregate (powder). Pour the POLY-CRETE MD SL resin into a metal 5-gallon pail; scrape bottom and sides with a mix stick to assure that all material is transferred to the mix bucket. Use the Poly-Crete pail to scrape the mix stick, and never scrape mix stick on the side of the mix pail. Pour all of the POLY-CRETE MD SL hardener into the center of the mix bucket. (If using POLY-CRETE NATURAL SL with pigment

add the pigment to the resin and hardener.) Next, using a 1/2" 850 RPM drill with a 4" dispersion blade, mix the resin and hardener for 30 seconds. Slowly add the POLY-CRETE SL aggregate to the resin and hardener and mix at 850 RPM for 1 minute. **PRODUCT MUST BE MIXED WITH A 4" DISPERSION BLADE AND A 1/2" VARIABLE SPEED 850 RPM DRILL. DO NOT ADD HARDENER TO RESIN UNTIL BATCH IS**

**READY FOR MIXING. FAILURE TO ADD ALL POLY-CRETE MD SL WILL RESULT IN IMPROPER CURE OF MATERIAL.**

- D. Pour the entire batch onto the floor and spread with a ½ V notched squeegee. Each kit of POLY-CRETE MD SL will yield 55 Sq. Ft. per kit. Check squeegee every 1000 sq feet for wear. Have new squeegee ready to avoid interruption in the process.
- E. Use a flat trowel to cut in edges, drains and around equipment. For continuity of finish and to ensure that new batches of material are blended together without transition lines, use even pressure and trowel at a low angle using a sweeping motion.
- F. To remove squeegee lines and help the material level, immediately Loop Roll the material after it has been placed. The material should be rolled straight forward and back picking up the roller with each pass; this will avoid leaving divots in floor. After the squeegee lines have been removed, the floor should be cross rolled side to side along the entire wet edge. The final cross roll should be completed within 12 minutes of mixing the product at 70°F.
- G. While wearing spiked shoes broadcast aggregate up into the air and let it fall onto the floor. Make sure the broadcast is dispersed evenly over the entire floor area at a rate of 0.8lbs per square foot. Broadcasting needs to be completed within 20 minutes of mixing. Do not roll or walk back into areas that have been broadcast. Allow POLY-CRETE MD SL to cure for a minimum of 6 hours @ 70°F.
- H. Use a stiff bristle broom to sweep off excess aggregate. Use a vacuum to remove sand around the edges and corners that are not accessible with a broom.

**SECOND BROADCAST**

- A. Measure out 1 part DUR-A-GLAZE #4 FAST hardener, and 2 parts SHOP FLOOR Resin. First add the hardener to a separate mixing pail and then add the resin. Scrape bottom and sides with a mix stick to assure that all material is transferred to the mix bucket. Use the measuring pail to scrape the mix stick, and never scrape mix stick on the side of the mix pail.
- B. Using a ½” 450 RPM drill with a Jiffler blade, mix the resin and hardener for 2 minutes. **\*DO NOT ADD RESIN TO HARDENER UNTIL BATCH IS READY FOR MIXING\***
- C. Pour a 4 to 6” ribbon along the starting area. Use a 3” chip brush to cut in along edges, doorways, and drains.
- D. Using a 12” flat, soft, rubber window squeegee, pull the material from side to side overlapping passes every 6”. Be careful not to leave any puddles. SHOP FLOOR is applied at 90 Sq. Ft. per gallon over Flintshot quartz aggregate.
- E. While wearing spiked shoes, back roll the material against the squeegee lines with a high quality 3/8” nap roller.
- F. Cross roll the material side to side overlapping the previous pass with half the roller width.
- G. Broadcast aggregate up into the air and let it fall onto the floor. Make sure the broadcast is dispersed evenly over the entire floor area at a rate of 0.5 lbs. per square foot. Do not roll or walk back into areas that have been broadcast. Allow to SHOP FLOOR to cure for 4 hours @ 70°F.
- H. Use a stiff bristle broom to sweep off excess aggregate. Use a vacuum to remove sand around the edges and corners that are not accessible with a broom.

**GROUT COAT**

Pre-mix the pigment in the ACCELERA resin container. (NOTE: for maximum efficiency premix pigments in all resins to be used for the job.)

**MIX AND APPLY ONE BATCH AT A TIME - DO NOT MIX HARDENER AND RESIN UNTIL BATCH IS READY FOR IMMEDIATE APPLICATION.**

Pour the ACCELERA hardener into the pre-mixed ACCELERA resin container; scraping the bottom and sides with a mix stick to assure that

all material is transferred to the resin bucket. Use the hardener pail to scrape the mix stick and never scrape mix stick on the side of the mix pail. Using a ½” 750 RPM drill with a 3 inch jiffler blade, mix the resin and hardener for 30 seconds.

Pour the entire batch onto the floor in a 4 to 6” ribbon. Using a flat squeegee spread the material evenly at approximately 65 square feet per kit. Cross roll the material pushing a 3/8 inch nap roller in the same direction immediately after the squeegee to ensure there are no puddles. All rolling should be completed within 5 minutes. Allow to cure for 2 hours (@ 70°F / 50% RH).

Use a vacuum to remove excess loose quartz. Scrape the floor with a trowel or floor scraper. Vacuum the floor again.

**TOPCOAT**

Pre-mix the pigment in the ACCELERA resin container. (NOTE: for maximum efficiency premix pigments in all resins to be used for the job.)

**MIX AND APPLY ONE BATCH AT A TIME - DO NOT MIX HARDENER AND RESIN UNTIL BATCH IS READY FOR IMMEDIATE APPLICATION.**

Pour the ACCELERA hardener into the pre-mixed ACCELERA resin container; scraping the bottom and sides with a mix stick to assure that all material is transferred to the resin bucket. Use the hardener pail to scrape the mix stick and never scrape mix stick on the side of the mix pail. Using a ½” 750 RPM drill with a 3 inch jiffler blade, mix the resin and hardener for 30 seconds.

Pour the entire batch onto the floor in a 4 to 6” ribbon. Using a flat squeegee spread the material evenly at approximately 200 square feet per kit. Cross roll the material pushing a 3/8 inch nap roller in the same direction immediately after the squeegee to ensure there are no puddles. All rolling should be completed within 5 minutes. Allow to cure for 2 hours (@ 70°F / 50% RH).

Use a vacuum to remove excess loose quartz. Scrape the floor with a trowel or floor scraper. Vacuum the floor again.

**NOTE: This product is best suited for application in temperatures between 60°F and 85°F. Full chemical and abrasion resistance occurs in 7 days at 70° F. At lower temperatures these properties will be attained more slowly. Protect floor from chemical exposure and abrasive wear during this time.**

**CAUTION**

**As with all chemical products, individuals may have different reactions to exposure to specific products. This is dependent upon many factors, including the individual's personal characteristics, the size of the installation, the ventilation available, the intensity of the exposure or the length of the exposure. Individuals may experience discomfort during the installation process of one product, but not another.**

**In some cases this is experienced as a skin irritation and in others it is experienced as an inhalant irritation. Typically, it disappears once the exposure is eliminated. In some cases people can become “sensitized” to a product and experience the discomfort every time there is exposure without Personal Protective Equipment (“PPE”).**

**To protect yourself from various exposures or discomfort during the mixing and application of our products, we recommend covering exposed skin including, using gloves, long sleeves, safety glasses and a respirator such as the 3M 8577 P95 Universal Disposable Carbon Respirator or a cartridge respirator.**

**Use only as directed. KEEP OUT OF REACH OF CHILDREN.**

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

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