

## HYBRI-FLEX ES

**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 ES is a 100% solids low odor, smooth, solid color system composed of a 8 mil POLY-CRETE TF primer, 1/8" POLY-CRETE MD SL body coat with F-60 quartz broadcast, 60 mil DUR-A-GARD S/L topcoat, and a 3 mil ARMOR TOP topcoat yielding a total nominal system thickness of 190 mils.

### 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 on our website for more information. Never feather edge HYBRI-FLEX ES, always terminate in a 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 Guidelines 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 the Mix Station video on our website.

### STORAGE CONDITIONS

**HYBRI-FLEX ES products must be stored dry. Do not allow resins to freeze. Do not store near open flame or food. Every POLY-CRETE product will be shipped with a lot number on the label. The first two digits indicate the year; the second two show the month, the third two will indicate the day. The shelf life is 6 months from the date on the label in the original unopened container.**

### JOINT GUIDELINES

Refer to the Joint Guidelines for complete details on our website.

### 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 30 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

- A. POLY-CRETE TF PLUS is supplied in pre-measured units consisting of one pail of resin, one pail of hardener and one

bag of aggregate (powder). Pour the POLY-CRETE TF PLUS 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, never scrape mix stick on the side of the mix pail. Measure 1 oz of POLY-CRETE HF ACCELERATOR and add it to the mix bucket. Pour the entire POLY-CRETE TF PLUS hardener into the center of the mix bucket. Using a 1/2" 750 RPM drill with a 4" dispersion blade, mix the resin and hardener for 30 seconds. Slowly add the POLY-CRETE TF PLUS aggregate to the resin and hardener and mix at 750 RPM for 1 minute. **PRODUCT MUST BE MIXED WITH A 4" DISPERSION BLADE AND A 1/2" VARIABLE SPEED 750 RPM DRILL. \*DO NOT ADD HARDENER TO RESIN UNTIL BATCH IS READY FOR MIXING\*. \*FAILURE TO ADD ALL POLY-CRETE TF PLUS POWDER WILL RESULT IN IMPROPER CURE OF MATERIAL\***

- B. Pour the entire batch in two 4-6" ribbons along the starting point.  
C. Using a 3" chip brush cut in along edges, drains, and doorways.  
D. Roll the material with an 18" 3/8" nap roller at 40 to 60 SF/kit depending on substrate texture and porosity.  
E. Cross roll the material to remove any puddles and achieve a uniform thickness. Allow to cure for 4 hours @ 70°F before proceeding to the next application.

### BASECOAT

- F. POLY-CRETE 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, 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 SL AGGREGATE WILL RESULT IN IMPROPER CURE OF MATERIAL\***



- G. Pour the entire batch onto the floor and spread with a 1/2 V notched squeegee. Each kit of POLY-CRETE SL will yield

55 SF/kit. Check squeegee every 1000 sq feet for wear. Have new squeegee ready to avoid interruption in the process.

- H. Use a flat trowel to cut in edges, drains and around equipment. With an even pressure at 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.
- I. 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 while 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.
- J. Wear spiked shoes while broadcasting F-60 quartz 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 0.5lbs per square foot. Make sure to wait a full 15-20 minutes before broadcasting. Broadcasting needs to be completed within 30 minutes of mixing. Do not roll or walk back into areas that have been broadcast. Allow POLY-CRETE SL to cure for a minimum of 6 hours @ 70°F.
- K. Use a stiff bristle broom to sweep off excess aggregate. Use a vacuum around the edges and corners that are not accessible with a broom.

### **DUR-A-GARD S/L TOPCOAT**

- A. Measure out 0.5 gallon of DUR-A-GLAZE #4 Regular hardener and 1 gallon of SHOP FLOOR Resin. The first step is to add the hardener to a separate mixing pail, then add the resin second. 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, never scrape mix stick on the side of the mix pail. **BE SURE TO PRE-MIX SHOP FLOOR RESIN AND HARDENER**
- B. Using a ½” 850 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. While continuing to mix, measure 3 quarts of F-60 quartz aggregate and 3 quarts of 290 Silica Flour and pour into the resin-hardener mix. Mix for another minute until uniform mixture is achieved.
- D. Pour a 4 to 6” ribbon along the starting area. Use a 3” chip brush to cut in along edges, doorways, and drains.
- E. Using a 3/8” notch squeegee, pull the material from side to side while overlapping passes every 6”. Be careful not to leave any puddles. DUR-A-GARD S/L is applied at 70 SF/gal.
- F. While wearing spiked shoes, back roll the material against the squeegee lines with a loop roller.
- G. Cross roll the material from side to side while overlapping the previous pass with half the roller width. Allow to cure for 12 hours @ 70°F.
- H. Use a vacuum to remove any dust from sanding the floor.

### **ARMOR TOP TOPCOAT**

#### **SPREAD RATES**

Gloss Clear (w/grit)	= 650 SF/kit
Gloss Clear (no grit)	= 625 SF/kit
Gloss Pigmented (w/grit)	= 775 SF/kit
Gloss Pigmented (no grit)	= 750 SF/kit

Satin Clear (w/grit)	= 775 SF/kit
Satin Clear (no grit)	= 750 SF/kit
Satin Pigmented (w/grit)	= 850 SF/kit
Satin Pigmented (no grit)	= 825 SF/kit

**NOTE: Armor Top is sold in kits only. Spread rates vary due to differences in gloss and satin kit sizes.**

- A. Pour 1 gallon of ARMOR TOP hardener into a 2 gallon bucket. Add 1 Quart of ARMOR TOP Colorant and mix for 30 seconds. Add 1 Quart of ARMOR TOP resin and mix for 30 seconds. If additional abrasion resistance is required, slowly add 1 pint of ARMOR TOP Grit and continue mixing for an additional minute. Pour a small amount into a dip and roll tray that is large enough to accommodate an 18 inch roller.
- B. Dip roller cover into paint tray and roll off excess. Apply two 8-10 foot long paths from left to right then right to left. Re-wet roller and continue application. Even out roller lines by using W shaped crosses and/or up & down passes. If not even, re-roll up and down until uniform. A final cross-roll is necessary to even out roller lines. Make sure to complete this roll within 10 minutes of the coating being placed.
- C. To prevent settling of the grit/powder, occasionally remix ARMOR TOP in a tray or bucket with a stick. Dry time is dependent on humidity as well as temperature.
- D. If recoating over 24 hours, sand floor using at least a 60 grit screen, solvent wipe and apply DUR-A-GLAZE #4 epoxy with SUPER STICK additive at recommended rate. Re-apply ARMOR TOP next day.

**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 77° 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.**

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