

## 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 5 mil POLY-CRETE TF primer, 1/8" POLY-CRETE MD SL body coat with F-70 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' for more information. Never feather edge HYBRI-FLEX ES, always terminate in a keyway groove at doorways, drains and exposed edges.

### MOISTURE TESTING

Typical substrate moisture levels should be no greater than 92%RH (Relative Humidity) and no greater than 12lbs/1000SF/24hrs per calcium chloride test. Please refer to our **Moisture Guidelines** for more information.

### 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 at [http://www.dur-a-flex.com/contractors\\_center/training\\_videos.aspx](http://www.dur-a-flex.com/contractors_center/training_videos.aspx)

### STORAGE CONDITIONS

HYBRI-FLEX ES components 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.

### PRIMER

A. POLY-CRETE TF 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 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 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 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 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 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 hardener into the center of the mix bucket. Using a ½” 850 RPM drill with a 4” dispersion blade, mix the resin and hardener for 30 seconds. Slowly add the POLY-CRETE MD 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 ½” 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\***

- G. 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 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-70 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 MD 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-70 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**

ARMOR TOP Pigmented with grit = 825 SF/kit
ARMOR TOP Pigmented (no grit) = 750 SF/kit

- 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 TIE COAT 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**

Refer to Material Safety Data Sheet for proper personal protective equipment to use when handling this product. Use only as directed. KEEP OUT OF REACH OF CHILDREN.

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