

## POLY-CRETE HF

**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. DUR-A-FLEX Power Mixers are highly recommended for mixing this 100% solids heavy-duty resurfacer. Large areas will require two or more Power Mixers or a large mortar mixer with close fitting plastic blades. NOTE: Cement mixers will not work.

**POLY-CRETE HF is applied by “trowel method”.** POLY-CRETE HF is typically applied at thicknesses ranging from 1/4” to 3/8”. POLY-CRETE HF can also be used to form containment berms or to slope floor to drain by blending with additional sand.

### **SURFACE PREPARATION**

Surface must be clean, sound, dry and free of all oil, grease, detergent film, sealers and/or curing compounds. To ensure that the finished system remains fully bonded to the substrate, it is recommended that edges of the floor area adjoining the walls be keyed to produce a cross section running at 6” from and parallel to the wall. A surface profile is appropriate for most applications. Please refer to the DUR-A-FLEX Surface Preparation Guide on our website for detailed instructions. To obtain neat, straight, chip resistant edges at termination points and/or drains, a “keyed edge” must be installed.

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).

### **MIXING AREA**

Select a convenient mix 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 you allocate for this function. The more comfortably your mixer works, the less likely you are to have a “mix error”. Do not mix this product in direct sunlight or when temperatures exceed 85°F. Exposure to high temperatures will greatly reduce the working time of this product. Make ready all necessary tools, mix and measure containers, etc. **DO NOT MIX UNTIL READY FOR IMMEDIATE USE.**

### **PRIMING**

POLY-CRETE HF is designed as a self-priming system.

### **TROWEL APPLICATION**

- A. Planning. Proper planning is essential for satisfactory appearance of the finished floor. Joint lines will show in the finished floor. Lay out installation in sections to allow full width to be finished in 20 minutes or less to assure absence of placement lines.
- B. Edge Details. Wherever a free edge will occur, including doorways, wall perimeter, expansion joints, columns and equipment pads, keyways must be cut in. At free edges, such as doorways, drains and transition to other floor systems, about a 1/2” wide by a 1/2” deep keyway is recommended. A 1/4” by a 1/4” is satisfactory for others.
- C. Slope and Pitch. POLY-CRETE HF may be installed on pre-sloped floors pitched up to 1/2” per foot. POLY-CRETE HF may be used on smaller areas to complete pitching and finishing in one install by adding 1/4” or 3/8” pea gravel to prevent slumping of the product. Pea gravel may also be added in applications where POLY-CRETE HF needs to be installed at greater than 1/2”. Larger areas that require pitching, sloping or repair may be completed by using polymer modified concrete or POLY-CRETE WR. Prime with DUR-A-TEX UM PRIMER and apply DUR-A-TEX UM “wet on wet”.
- D. Crack Repair and Patching. Up to 1/2 x 1/2 can be overlaid at the time of install with POLY-CRETE HF. Larger cracks may be primed with DUR-A-TEX UM PRIMER and filled with DUR-A-TEX UM. Allow DUR-A-TEX UM to harden before applying POLY-CRETE HF. Holes may be patched with DUR-A-CRETE or DUR-A-TEX UM. Prime with GLAZE #4 fast or DUR-A-TEX UM PRIMER. Do not allow primer to puddle during repairs. Apply wet on wet and allow to cure 2-3 hours before proceeding with installation of the POLY-CRETE HF floor. **Allow primer to tack-up prior to placement of mortar.**
- E. Mixing. Ensure all components are between 50 and 85°F. Any hardener crystallized (lighter color) by low temperature storage or transport must be decrystallized

by heating to 100oF in a hotbox or water bath. POLY-CRETE HF is supplied in premeasured units consisting of one pail of resin, one pail of hardener and one bag of aggregate (powder). Double and triple mixes may be prepared. Pour resin into power mixer pail, scraping bottom and sides to assure all pigment is transferred. The resin and hardener should be added to a forced circulation pail mixer and pre-blended for approximately 30 seconds. A Jiffler or Bird Cage mixer is **not recommended** for this product Gradually add aggregate until homogeneous mix is attained. (Approximately 1 minute) Move the paddle back and forth scraping the bottom and sides of the pail while mixing. This is very important! THOROUGH BLENDING IS MANDATORY. A properly mixed batch trowels 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. Clean mixing paddle and pail regularly to avoid mixing fresh material with older batches. This may result in irregular curing or blisters. Apply material immediately after mixing.

- F. Place the entire batch of mortar on the floor. Spread at a desired thickness with a screed box.
- G. Finishing. Finish with a steel trowel. Apply sufficient pressure on the trowel to level POLY-CRETE HF as much as possible. Level POLY-CRETE HF using a trowel that is angled at approximately 60°F. Ensure material is at the desired thickness prior to finishing the floor with the trowel adjusted to a flat angle. Use sweeping motions in one direction (example: left to right) to ensure the floor is fully closed up, level and finished. Do not use alcohol or solvent. The finished surface will follow the contour of the concrete substrate. A bright light behind the applicator will readily reveal trowel marks. Replace sleeve periodically to reduce introduction of curing material to newly applied areas.

Failure to follow these instructions may also leave variations in

surface color. Apply minimal pressure to the roller. Aluminum Oxide or sand may be broadcast into the wet resin for enhanced slip resistance. Rolling after broadcast will embed aggregate in resin reducing added slip resistance.

Clean trowel with solvent but ensure the trowel is dry before using on the POLY-CRETE HF. Check for 1/4" or 3/8" thickness frequently. Allow to fully cure.

**NOTE:** Keep moisture from contacting POLY-CRETE HF during installation and curing. Water may alter surface appearance. All plumbing leaks must be stopped or diverted prior to commencement of work.

**IMPORTANT!** Mix only what can be applied in 10 - 15 minutes. Never attempt to re-temper the mortar after it begins to set.

### **CURING**

Allow a minimum of eight hours cure before light foot traffic at 75°F. A minimum of 24 hours is required at 50°F. Additional time must be allowed for heavy loads.

### **LIMITATIONS**

Exposure to ultraviolet light will change the color of POLY-CRETE HF. Sunlight and metal halide lighting will cause yellowing without affecting the performance. As an option, a coat of POLY-CRETE Color-Fast can be applied to prevent ambering.

### **MOISTURE CONCERNS**

Normal limits for moisture vapor transmission for Poly-Crete floor systems are 20 lbs./1,000 sq. ft./24 hour using the calcium chloride test per ASTM F-1869 or 99% relative humidity using in-situ Relative Humidity Testing per ASTM F-2170. Please refer to the Floor Evaluation Guidelines at [www.dur-a-flex.com](http://www.dur-a-flex.com) for complete details.

### **JOINT GUIDELINES**

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

#### **IMPORTANT!**

*Before using DUR-A-FLEX products, read and understand its accompanying Safety Data Sheet.*

STANDARD TERMS AND CONDITIONS OF SALE, INCLUDING STANDARD WARRANTY APPLY - VISIT **DUR-A-FLEX.COM** FOR THE LATEST VERSION

**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.