

## **DUR-A-QUARTZ “BM” EPOXY FLOORING**

**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 cove base and patching compound. Material for small areas can be mixed with a 1/2” - 3/4” heavy duty, slow speed, electric drill equipped with a DUR-A-FLEX bird-cage mixing attachment and a 5 -gallon metal pail.

**DUR-A-QUARTZ “BM” is applied by “broadcast method”.** When recommended spread rates are followed, a double broadcast or a slurry/broadcast produces a nominal 1/8” thick finish. A triple broadcast or a slurry/double broadcast will produce a nominal 3/16” thick finish. A Q-11 single broadcast yields a nominal 3/32” finish. A Q-11 double broadcast or a slurry/broadcast yields a nominal 3/16” finish. A Q-11 triple broadcast or a slurry/double broadcast yields a nominal 1/4” finish. A 1/16” single broadcast DUR-A-QUARTZ floor is not recommended.

### **SURFACE PREPARATION**

Surface must be clean, sound, dry and free of all oil, grease, detergent film, sealers and/or curing compounds. A surface profile of 10 to 15 mils is appropriate for most applications. All paint should be removed unless it is a properly applied, totally de-glossed, high quality epoxy. Upper level rooms, like mechanical rooms, bathrooms, or wet process areas that have space below should receive ELAST-O-COAT seamless, fluid applied membrane. ELAST-O-COAT should be used on areas exposed to thermal shock and as a defusing layer to absorb vibration from transferring through to the finished floor. Please refer to the DUR-A-FLEX “Surface Preparation Guide” for detailed instructions. 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.

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 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”. Make

ready all necessary tools, mix and measure containers, etc.  
DO NOT MIX ANY EPOXY UNTIL READY FOR

IMMEDIATE USE. Once hardener and resin are combined, it must be used immediately. Apply masking tape wherever coating is intended to stop. To obtain neat, straight, chip resistant edges at termination points and/or drains, a “keyed edge” must be installed.

### **PRIMING**

Prime all surfaces with DUR-A-SHIELD or DUR-A-GLAZE WB as soon as the surface has been prepared. On oily concrete slabs HI-SPEED Detergent/Degreaser is recommended, be sure to apply primer before oil has a chance to “wick” up to the top of the slab and migrate across the surface.

### **1. DOUBLE BROADCAST METHOD**

- A. Prepare the surface as outlined in the DUR-A-FLEX “Surface Preparation Guide”.  
Prime surface with appropriate primer and spread rate.
- B. Measure out 1/2-gallon hardener and 1 gallon resin. When combining, be sure to add the hardener first. Add the resin and scrape out the container. Be careful to pour both hardener and resin into the center of the mixing pail. Mix the blended epoxy with a slow speed power drill with a Jiffler mixing blade for 3 minutes. Always scrape the sides and bottom of the mixing bucket to assure thorough blending.
- C. Apply a “flood coat” of blended epoxy at approximately 100 Sq Ft per gallon with a 3/16” V notch squeegee and back roll with a quality non-shed roller.
- D. Broadcast DUR-A-QUARTZ Aggregate. While wearing spiked shoes walk on the wet epoxy holding a 2-gallon container and broadcast the aggregate until the floor appears dry (about 1/2 lb. per Sq Ft). Be sure to keep moving while throwing the aggregate UP into the air so it falls vertically onto the epoxy. Do not rush, as it may take 15 to 30 seconds for the aggregate to be absorbed by the epoxy. **IMPORTANT:** Do not “seed” the edge that will be joining the next section. Be sure to leave a “WET EDGE” (a 24” strip “unseeded” to permit overlapping when proceeding onto next section). Do not walk on the aggregate with spiked shoes. Be sure to keep any impurities out of the sand such as broom bristles, debris, etc. Allow to cure.
- E. Sweep off the excess aggregate using a stiff, clean, dry broom with synthetic bristles. Save the sweep off and use it for the next broadcast.

- F. Apply the next coat with a 12” flat squeegee. Move squeegee in a continuous semi-circular motion from left to right to left, etc. Back roll with a quality short nap, non-shed roller.
- G. Sweep off the excess aggregate again. Scrape the floor with a trowel. Sweep or vacuum the floor again.
- H. See *TOPCOAT INSTRUCTIONS below*.

## **2. SLURRY BROADCAST METHOD**

- A. Prepare the surface as outlined in the DUR-A-FLEX Surface Preparation Guide on our website.
- B. Prime surface with appropriate primer and spread rate.
- C. Measure out 1/2-gallon hardener and 1 gallon resin. When combining, be sure to add the hardener first. Add the resin and scrape out the container. Be careful to pour both hardener and resin into the center of the mixing pail. Mix the blended epoxy with a slow speed power drill with a Jiffler mixing blade for 3 minutes. **Always scrape the sides and bottom of the mixing bucket to assure thorough blending.**
- D. Add 1/2 gallon of #1/2 Jersey Sand, 1/2 gallon of DUR-A-QUARTZ aggregate and 1/2 gallon of #290 flour. Blend thoroughly with drill and Jiffler mixer. Be sure to stir the slurry mix each time immediately before you pour it on the floor, as the sand will settle in the bucket.
- E. Pour out about 1/3 of the slurry and spread with a cement finish trowel. Do not tilt the trowel more than a 45° angle. Use the jersey sand as a guide and let the trowel slide over it. (A loop roller may also be used to help make the slurry more uniform). Allow 5 to 10 minutes for the slurry to level before proceeding to the next step.
- F. Broadcast DUR-A-QUARTZ Aggregate. Wearing spiked shoes walk on the wet epoxy holding a 2-gallon container and broadcast the aggregate until the floor appears dry (about 3/4 lb. per Sq Ft). Be sure to keep moving while throwing the aggregate UP into the air so it falls vertically onto the epoxy. Do not rush, as it may take 15 to 30 seconds for the aggregate to be absorbed by the epoxy. **IMPORTANT:** Do not “seed” the edge that will be joining the next section. Be sure to leave this “WET EDGE” (a 24” strip “unseeded” to permit overlapping when proceeding onto next section). Do not walk on the aggregate with spiked shoes. Be sure to keep any impurities out of the sand such as broom bristles, debris, etc. Allow to cure.
- G. Sweep off the excess aggregate with a stiff broom. Sand the floor with a floor buffing machine and sanding attachment. Use 3½” open grit sandpaper. Sweep or vacuum the floor again.
- H. See *TOPCOAT INSTRUCTIONS below*.

### **TOPCOAT INSTRUCTIONS (Q28 Only)**

*(1 coat for standard, 2 for orange peel, 3 for smooth)*

DUR-A-GLAZE #4 “Water Clear” should be used for topcoats to lessen the effects of ambering from UV exposure. **NOTE:** Do not use “Fast” Hardeners for topcoats as they yellow very quickly and could produce pinholes.

- A. Measure out 1/2-gallon hardener and 1 gallon resin. Follow the same pouring and mixing procedures as described in the broadcast coat. Apply the topcoat with a 12” flat squeegee. Move squeegee in a continuous semi-circular motion from left to right to left, etc. Steady pressure on squeegee is necessary to obtain a uniform appearance. Do not advance squeegee too rapidly, each semi-circular swing should advance approximately 4 inches. It takes practice to reverse direction of the squeegee movement at the end of each left to right to left stroke. 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.
- B. Back roll with a quality short nap, non-shed roller.
- C. For multiple topcoats, sand the floor in between topcoats with a floor buffing machine and sanding attachment. Use 3½” closed coat sandpaper.
- D. Sweep or vacuum the floor again and repeat for each topcoat. Apply Armor Top per Product Data Sheet instructions.

**IMPORTANT:** Be sure to pour the hardener into the mixing bucket first, then the “resin”. Always scrape the sides and bottom of mixing container to assure thorough blending. **USE SIGNS AND BARRIERS** to keep traffic out of the area. Do not allow any water on coated surface for 24-48 hours. Chemical spillage must be prevented for approximately 5 days. **NOTE:** Use DUR-A-SOLVE or a lacquer thinner for clean up.

### **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.**

### **JOINT GUIDELINES**

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

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