

SHOP FLOOR MR INDUSTRIAL 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 who will be glad to assist with your questions. Pail or bucket 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 Jiffler mixer attachment and a 5-gallon metal pail.

SHOP FLOOR MR is applied by the broadcast method. When recommended spread rates are followed, a Flintshot double broadcast produces a nominal 1/8" thick finish.

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 CSP 3 minimum is appropriate for most applications. All paint should be removed unless it is a properly applied, totally de-glossed, high quality epoxy. Please refer to the DUR-A-FLEX Surface Preparation Guide on our website 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 without delay. 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.

QUALITY CONTROL

The color of SHOP FLOOR resin may vary slightly from batch to batch. It is recommended that the lot number on the side of the resin pail be checked, if lot numbers are different, box together the different lot numbers to ensure a uniform color for topcoat applications.

JOINT GUIDELINES

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

EPOXY MEMBRANE APPLICATION

- A. Prepare the surface as outlined in the DUR-A-FLEX Surface Preparation Guide.
- B. Measure 1/2 gallon Elast-O-Coat hardener and 1 gallon Elast-O-Coat 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. ELAST-O-COAT is typically applied with a notched trowel or squeegee at various spread rates. Surface profile and amount of expansion/contraction determines the required spread rate. A coarse surface requires more ELAST-O-COAT.

Film Thickness:	Spread Rate:
20 mils	80 Sq Ft/gal
30 mils	50 Sq Ft/gal.
50 mils	32 Sq Ft/gal.

- D. Allow to cure.

1. DOUBLE BROADCAST METHOD

- A. Measure 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.**
- B. Apply a "flood coat" of blended epoxy at approximately 100 Sq Ft per gallon with a 3/16" notched squeegee and back roll with a quality non-shed roller.
- C. Broadcast Flintshot aggregate. Wearing spiked shoes or golf 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 "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.

- F. Sweep off the excess aggregate using a stiff, clean, dry broom with synthetic bristles.
- G. Repeat steps C (mix), D (apply with a flat squeegee) & E (broadcast) again for 1/8" thickness, twice for a 3/16" thickness.
- H. Sweep off the excess aggregate. Sweep or vacuum the floor again.
- I. See *TOPCOAT INSTRUCTIONS below*.

2. SLURRY BROADCAST METHOD

- A. Prepare the surface as outlined in the DUR-A-FLEX Surface Preparation Guide.
- B. Prime surface with appropriate primer and spread rate.
- C. Measure out 1/2-gallon DUR-A-GLAZE #4 hardener and 1 gallon SHOP FLOOR 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 Flintshot 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 Flintshot 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. Sweep or vacuum the floor again.
- H. See *TOPCOAT INSTRUCTIONS below*.

TOPCOAT INSTRUCTIONS (Flintshot Only)

(1 coat for standard, 2 for orange peel, 3 for smooth)
DUR-A-GLAZE #4 WATER CLEAR and REGULAR hardeners are recommended for topcoat applications. **NOTE:** Do not use "Fast" Hardeners for topcoats as they yellow very quickly and could produce pinholes.

- A. Measure out 1/2-gallon DUR-A-GLAZE #4 hardener and 1 gallon SHOP FLOOR 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 3/2" closed coat sandpaper.
- D. Sweep or vacuum the floor again and repeat for each topcoat. Apply pigmented 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 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.