

## **DUR-A-GLAZE#4 ESD PRIMER / DUR-A-GARD ESD**

**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.

### **INSTALLATION OVERVIEW**

The general steps required to install this system are:

1. Prepare the slab-shot blast, patch, honor joints
2. Prime with DUR-A-GLAZE #4 ESD PRIMER
3. Install copper foil tape
4. Install DUR-A-GARD ESD topcoat
5. Test resistivity at 24 hrs.

### **SURFACE PREPARATION**

Surface must be sound, dry and perfectly clean, 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. 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).

### **JOINT GUIDELINES**

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

### **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, working time is dependent on size of batch and the temperature of the floor and product. 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.

### **PRE-PATCH**

Do pre-patch badly eroded, spalled or cracked areas with DUR-A-CRETE. Use ELAST-O-COAT for moving joints, and DUR-A-GLAZE #4 mixed with NO-SAG #2 or FLINTSHOT for non-moving joints. **BE SURE TO LEAVE AS LITTLE EXCESS AS POSSIBLE AS IT WILL BE HIGHLIGHTED IN SUCCESSIVE STEPS.** Sanding or grinding pre-patch areas will help to hide deviations.

### **PRIMING WITH DUR-A-GLAZE #4 ESD PRIMER**

All surfaces must be primed with DUR-A-GLAZE #4 ESD PRIMER as soon as the surface has been prepared. Due to the porosity of the concrete, the possibility of out gassing may occur after shot blasting, if this occurs, a second primer coat is needed. SIMONIZ 969 Detergent/Degreaser is recommended to clean oily concrete slabs. 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. Pre-mix hardener and resin components separately before combining.
2. DUR-A-GLAZE #4 ESD PRIMER is mixed 1 part Hardener to 2 parts Resin mix ratio. Measure out 1/2 gallon of DUR-A-GLAZE #4 ESD PRIMER hardener and 1 gallon of DUR-A-GLAZE #4 ESD PRIMER 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.
3. Pour a 4 to 6 inch “ribbon” of blended epoxy onto the floor (typically along the far wall or a joint). DUR-A-GLAZE #4 ESD PRIMER is typically applied at 200 Sq Ft per gallon to yield 8 mils DFT per coat with a 1/8” notched squeegee. Back roll with a quality non-shed 3/8” nap roller. Cross roll entire area as you go, while wearing spiked shoes. Be sure to remove any impurities as you see them. It is much harder to cut or grind them out after the product has cured. Allow to cure.

### **COPPER FOIL TAPE INSTALLATION**

Install Copper foil tape conductive adhesive to ground (such as metal support columns). Copper foil tape is available from McMaster-Carr Company (www.mcmaster.com). Dur-A-Flex, Inc. recommends using the ½” tape with conductive adhesive part number 76555A642. Copper foil tape should be installed at one point per 1,000 square feet minimum.

### **QUALITY CONTROL**

The color of DUR-A-GARD ESD 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, segregate and apply each lot contiguously to minimize slight color variations on the floor.

### **TOP COAT WITH DUR-A-GARD ESD**

After priming with DUR-A-GLAZE #4 ESD PRIMER and installing Copper foil tape to grounds, Topcoat with DUR-A-GARD ESD.

1. Pre-mix hardener and resin components separately before combining.
2. DUR-A-GARD ESD is mixed in a 1part Hardener to 3 parts Resin mix ratio. Measure out 1/2 gallon of DUR-A-GARD ESD hardener and 1 1/2 gallons of DUR-A-GARD ESD 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.
3. Pour a 4 to 6 inch “ribbon” of blended epoxy onto the floor (typically along the far wall or a joint). DUR-A-GARD ESD is typically applied at 100 Sq. Ft. per gallon to yield 16 mils DFT (or 20 mils @ 80 Sq. Ft. per gallon) with a 3/16” notched squeegee and then back-rolled with a quality non-shed 3/8” nap roller. Cross roll entire area as you go, while wearing spiked shoes. Be sure to remove any impurities as you see them. It is much harder to cut or grind them out after the product has cured. Allow to cure.

### **TESTING RESISTIVITY**

Once DUR-A-GARD ESD has cured for 24 hours at 70°F, resistance readings should be taken to ensure the floor is reading properly. DUR-A-FLEX, Inc.

recommends using the OHM-STAT RT-1000 Megohmmeter from Static Solutions. Floor readings should be tested at 100V and read between 10<sup>6</sup>-10<sup>9</sup> Ω/Square.

### **IMPORTANT!**

**Increasing room temperature to accelerate cure is not recommended, a slight reduction (3°-5°F) from reasonable room temperature may help reduce out gassing. DUR-A-GARD ESD is a high gloss finish and special care should be given to avoid surface contamination. 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. This product is suitable for applications between 60° and 85° F concrete slab temperature.

**DO NOT THIN DUR-A-GLAZE #4 ESD PRIMER OR DUR-A-GARD ESD WITH SOLVENT.**

### **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.*