

Michigan Specialty Coatings, Inc 5407 Gratiot Avenue Saint Clair, Michigan 48079 USA 1.866.453.7699 Fx.810.985.6700 www.mscfloors.com

## **ESD Floor Application**

Description: ● Two Component, ESD (PIP)● Designed for experienced applicators

Protect esd 100 is a PIP product that we use as a standalone epoxy that is applied over a primer that allows static to dissipate throughout the coating. Because this is a specialized product it cannot be broken down any smaller. You must mix the whole kit. Apply this product between 12 to 20 mils.

Vath- It is crucial that all of the PART A (ESD-100-A/5SF) be pre-mixed and homogenous before adding the color pack and Part B hardener. To be absolutely sure, pre-mix and then empty contents into another pail completely to see if there is any settling on the bottom of the pail that was missed. If so, remove it and include it into the poured pail. Add color pack, mix for 1 minute and then add hardener. This material is expensive! To assure it is free of chunks and debris, I strongly suggest pouring the mixed material through a nylon mesh filter before pouring out on the floor. Repairs of this material are expensive and costly. Take the extra time

Protect esd 200 is a PIP product that we use as a standalone urethane that is applied over a system to allow static to dissipate throughout the coating. Because this is a specialized product it cannot be broken down any smaller. You must mix the whole kit. Apply this product between 3 to 5 mils.

Vath- It is crucial that all of the PART A (ESD-200-A/2SF) be pre-mixed and homogenous before adding the color pack and Part B hardener. To be absolutely sure, pre-mix and then empty contents into another pail completely to see if there is any settling on the bottom of the pail that was missed. If so, remove it and include it into the poured pail. Add color pack, mix for 1 minute and then add hardener. This material is expensive! To assure it is free of chunks and debris, I strongly suggest pouring the mixed material through a nylon mesh filter before pouring out on the floor. Repairs of this material are expensive and costly. Take the extra time

When using either product you have to have a primer that is already fully cured down prior to installing either one of these coatings. Both coatings must be ground to the structure properly before installing them with copper tape. Vath- apply 1 ground per every 1000 SF of floor area. A suitable ground can be a strip of copper tape that runs vertically 2-3 inches up an I-beam column (remove paint on column where tape is applied) and out onto primed floor 2-3 inches.

Limitations: • UV/Light Stability: Protect esd

100 is not UV/light stable and will yellow/amber more quickly. Contamination (Fish eyes/separations): Product may fisheye if oil, silicones, mold release agents or other contaminants are present. They may blush if applied at relative humidity >80%. There can be no broadcast in any of our esd coatings. These products cannot be pigmented to a pure white although a



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very pale shade of gray can be attained by adding a pure white colorpack. These products have a very short shelve life which is around 3 months.

Preliminary floor inspection before application: •

Concrete must be structurally sound and free of curing membrane, paint or sealer Concrete must be dr y before application of this floor coating material. Project manager is responsible for performing a concr ete moisture test prior to the beginning of the project. Floor temperature and materials should be bet ween 60 and 90 degrees fahrenheit. Humidity must be less than 80%. Do not coat unless floor temperat ure is more than five degrees over the dew point.

## Application Equipment: •

PPE (rubber gloves, safety glasses, respirator) 5 gallon buckets, 5qts, 2qts, 1qts,

Paint stick, tape measure and sharpie marker ● Painters floor canvas ●

Slow speed or variable speed mixing drill •

Jiffy or dispersion mixing paddle ●Rags and trash bags ●rubber squeegee- (priming) ●18in, 6in(kung fu), and 4in roller assembly ●Shed resistant 18in,6in,and4in ¼ " nap roller covers ● Blue painters and duct tape ● Spiked shoes ● Solvent (xylene, denatured alcohol) ● Extension cord ●6" strips of Cooper Tape

Preparation: • Prep existing concrete or coating that is on substrate.

Sweep to remove large debris and vacuum to remove fine dust (detailed vacuuming is extremely impor

Tape off all door or floor transitions as well as any drains/cleanouts or anything you want to keep coati ng off of anything that you cannot confidently brush in. Apply 1-6" piece of cooper tape to an existing metal structure in the building with at least 2" of tape on floor and 2" of tape on beam. This process must be installed every 1,000 sqft.

## Mixing: ●

Setup Lay out canvas to protect floor from spills during the mixing process. Cardboard or plastic sheetin g (garbage bag) taped to canvas directly under mixing area will assist in cleanup and protection from m aterial bleeding through canvas. Assemble roller frames and kung fu with nap roller covers and wrap wi th blue tape to remove any residual lint. Assemble flat squeegee. Separate and place buckets of A(resin) and B(hardener) in an organized and convenient manner for mix person to be able to work effic iently and not confuse them. Both of the products listed above have to be pigmented because they come clear. Ready your 5 gallon bucket to mix in as well as a 2nd bucket to place your wet paddle in between mixes. Run extension cord for mixing drill. No tools are needed for measuring the resin and hardener; full kits have to be mixed ONLY. Floor team to have a 5in1 tool and

rag in pocket as well as cleaned spiked shoes on when applying floor.

Premix part A with drill and Jiffy paddle for 1 minute. Combine resin, hardener and pigment (1 pint) and mix for one minute using the drill and jiffy paddle.



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Approximate Work Time (Time from time the mix drill stops to final back-rol) is 15 minutes for ESD-100 and 20 minutes for ESD-200. Failure to dump and spread the ESD-100 in particular onto floor within 10 minutes of mix time can result in electrical performance outside of specification. Always time mixes so that a pail is poured as soon as the mix time as possible.

Application- •Both of these coatings are to be used as topcoats so the substrate that that are being applied on needs to be primed. When applying the Protect ESD 100 use a ½" notched squeegee. Push the material at an even speed with sufficient down pressure to apply the thinnest coat. Start the second and remaining passes by pushing material parallel to the first stroke. Hold the bead of material near the center of the bar. The use of spikes will allow freedom of movement on the wet floor. This coating needs to be back rolled and finished. When applying the Protect ESD 200 this product needs to be poured off into a tray and apply very tight by dipping and rolling it. Immediately after material is applied and there is room to roll, a person will cut in walls, doorways, drains and any obstacles in the floor using a chip brush and kung fu with ½" nap roller. Always time trim operation as close to the final back roller as possible. Trimming to early or too late will result in a color difference especially in warmer more humid conditions. For best results trim with 5-10 minutes of the back roller.