

## SUBSTRATE

The substrate must be free of curing membranes, silicate surface hardener, paint, or sealer and be structurally sound. If the concrete has been treated or sealed, proceed with complete removal process. Contact StaticWorx for further instruction if silicate hardeners or membranes have been utilized.

## LIMITATIONS

If contaminates of oils, silicones, mold release agents, and/or others are present, GroundWorx Ultra ESD top coat may fisheye or delaminate from the surface. Surface contaminates should be removed with a suitable detergent prior to application. Solvent cleaning of silicone contaminates may make the situation worse; please contact StaticWorx for additional recommendations.

## MOISTURE

Moisture and vapor transmission rates are dynamic in nature and may change over time. Initial testing does not guarantee future results. StaticWorx requires that all concrete slabs are tested using in-situ probes per ASTM F-2170 and with calcium chloride tests per ASTM F-1869. This primer is designed to bond in the presence of elevated moisture levels, but if the relative humidity of the concrete substrate is over 75% (per ASTM F-2170) or 3lbs/1,000ft<sup>2</sup>/24 hours (ASTM F-1869), contact StaticWorx. Depending on the topcoat to be applied over this primer, an alternate mitigation primer may be recommended.

## VAPOR/CONTAMINATION

If there is no known vapor barrier or the vapor barrier is inadequate, there is an elevated risk of bond failure. Other factors including the migration of oils, chemicals, excessive salts or Alkali Silica Reaction (ASR) from the concrete may also elevate the risk of adhesion difficulties. Contact StaticWorx for approved mitigation treatments.

## TEMPERATURE & HUMIDITY

During the application and curing of the coating, the substrate temperature, material temperature, and room conditions must be maintained between 65°F (18°C) and 80°F (26°C). Relative Humidity (RH) should be limited to 30- 70%. DO NOT apply coatings unless the surface temperature is more than five degrees over the dew point.

## EQUIPMENT

- Protective equipment and clothing
- Jiffy mixer blade, model ES
- Clean container for mixing
- Low speed high torque drill motor
- High quality lint-free roller covers (3/8 in nap)
- Squeegee (for smooth finish)

## SURFACE PREPARATION

Surface dirt, grease, oil, and contaminants must be removed by detergent scrubbing and rinsing with clean water. Shot blasting or grinding the surface is the preferred method of preparation. The success of industrial diamond grinding as a concrete preparation method will vary depending on technique and the hardness of the concrete.

## JOINT TREATMENT

All control joints can be filled with a rigid or semi-rigid joint compound. Construction joints may be filled with semi-rigid joint filler and might need to be re-built and re-cut depending on conditions.

## ELECTRICAL GROUNDING

Installing GroundWorx Ultra ESD primer between the concrete surface and GroundWorx Ultra top coat is mandatory. The coating must be grounded to an earth ground once every 1,000 square feet for proper static dissipation. The EOS/ESD Association provides instruction for proper grounding of ESD equipment and floors. Contact Staticworx for proper grounding techniques and product certification.

## MIXING INSTRUCTIONS

- Transfer the entire contents of Part A into a clean 5-gallon pail, first pouring off the liquids, then breaking up and adding any settled solids. This solid material may have a consistency like sand/clay - this is normal. Use a putty knife or margin trowel to scrape any remaining conductive additive out of the pail if it is stuck to the bottom.
- Pre-mix Part A using a Jiffy blade (model ES preferred) on a variable speed drill mixer, starting slowly and then increasing the speed of the mixing paddle as more of the settled material is dissolved into the liquid. Mix until a uniform consistency has been achieved with no visible lumps in the coating.
- Add ½ pint colorant and blend until uniform (1-2 minutes)
- Add Part B and mix for an additional 2-3 minutes at a medium speed, reversing direction on the mixing blade every 60 seconds. Mix until evenly blended.

- StaticWorx strongly recommends pouring the mixture into another clean 5-gallon pail, through a fine nylon mesh paint strainer (<255 microns), to remove any remaining solids.
- Add glass bead aggregate into the strained mixture (only AFTER filtering, never before) and blend using the Jiffy drill mixer at a slow speed until it is uniformly distributed.

## APPLICATION INSTRUCTIONS

- Pour the mixture into a clean roller pan and apply using 18 inch, 3/8" nap shed-free rollers. Be sure that all rollers have been taped off to remove any loose fibers prior to application.
- Back roll the coating, overlapping and cross lapping to eliminate roller marks.
- Finish roll to an even film thickness to achieve a uniform reflection and avoid puddling. Thicker areas may exhibit a higher gloss upon curing, whereas thinner areas may have a more flat/matte finish.
- Standard coverage is 720 SF @ 4 mils thickness (820 SF @ 3.5 mils, 575 SF @ 5 mils) per every 2-gallon mix.
- Working time to ensure proper ESD properties is 20 minutes per kit @ 70°F.
- If necessary, apply additional top coat on top of exposed copper grounding tape to hide it using a brush or small roller.

## WORKING TIME

Material must be mixed, applied, and finish rolled within 20 minutes of mixing. Failure to achieve this may result in inconsistent or non-compliant electrical performance and may also provide an inconsistent finish. Do not combine multiple kits together unless this timetable can be easily met.

## SPREADING

Material applied too heavily may blister or can be soft during curing. Too little material may produce a non-uniform look and affect electrical performance. Industry best practice is to measure and grid the floor to be sure of proper application rate.

## CURE TIME

Allow the coating to dry for a minimum 18 hours after application at 75°F (24°C) and 50% RH before opening the floor to light traffic. Allow more time for low temperatures and lower humidity or for heavier traffic. Full curing may take up to 7-14 days.

## HANDLING PRECAUTIONS

Use only with adequate ventilation. Appropriate cartridge-type respirator should be used during application in confined areas. Avoid contact with skin; wear protective gloves. Read Material Safety Data Sheet before using.

## DISPOSAL

Dispose in accordance with federal, state, and local regulations.