

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 WaterBorne primer 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 and is not recommended. 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 levels of moisture, but if the relative humidity of the concrete substrate is over 95% (per ASTM F-2170), contact StaticWorx. Depending on the topcoat to be applied over this primer, an alternate mitigation primer may be recommended.

VAPOR/CONTAMINATION

Testing for moisture vapor transmission does not guarantee against future problems. 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 90°F (32°C). Relative Humidity (RH) should be limited to 30- 80%. 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 1" – 3/8" -nap 18" wide roller
- Squeegee

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 to a profile of CSP 2 - CSP 3 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.

NOTE: Concrete is inherently porous and permeable. It can absorb and release water, vapor, and air due to naturally occurring conditions. Concrete substrates contain a network of voids, capillaries, microscopic air pockets, and stress cracks sealed concrete slab opens up the surface and can allow for transmission of trapped air and gasses for an undetermined period of time. It is always best practice to test for outgassing before applying a primer. Bubbles, pinholes, and other deformations may occur in GroundWorx Ultra HB ESD primer when applied over an outgassing concrete slab.

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. Isolation or expansion joints must be filled with a flexible material designed for expansion and should not be coated over.

MIXING INSTRUCTIONS

- Pre-mix part B with a Jiffy mix blade on variable speed drill mixer at a slow speed until a uniform viscosity is achieved.
- In a clean, empty 5-gallon pail, combine Part B and 1 pint of colorant. Mix until well blended.
- Add part A and mix for 3 minutes, until blend is consistent.
- Mix only enough material at one time to avoid exceeding the pot life. Once the material is opened and mixed, it cannot be resealed for later use.

WATER REDUCTION: GroundWorx Ultra HB WaterBorne primer may be reduced with water for viscosity reduction, ease of application and for deeper penetration into the concrete substrate especially when used as a primer. Water addition of up to ½ gallon maximum per 4-gallon mix is permitted. **WATER MUST BE ADDED ONLY AFTER** parts A, B, and C are mixed thoroughly. Adding water to the Part A prior to adding the the Part B will destroy the coating.

APPLICATION INSTRUCTIONS

- Pour mixture directly onto the floor in ribbons across the application area.
- Use a notched squeegee to spread the epoxy, paying close attention to the spread rate. Each 4-gallon single mix will cover 800-1000 SF per single coat @ 6-8 mils thickness. The first coat typically covers 800-850 SF, second coat covers approximately 950-1000 SF.
- Back-roll with no-shed, 1/4" nap rollers. Overlap and cross lap. Avoid over-rolling and introducing air bubbles.
- Viscosity doubles in approximately 40 min @ 72°F. Apply the material as quickly as possible once mixed, not to exceed a maximum working time of 40 minutes. It will get harder to spread evenly the longer it sits. It is highly recommended to apply each mix within 25 minutes. When mixed as is (without water reduction), the viscosity will increase from 400 cps to 800 cps in 40 minutes. With a ½ gallon water addition per 4-gallon mix, the viscosity will increase from 125 cps to 250 cps in 40 minutes.
- Average dry time is 4-8 hours (colder conditions require more time, warmer conditions require less)
- Once the first coat is dry, apply a second coat of the primer as detailed above. Sanding with a 100 grit screen is always recommended per industry best practice. Sanding is required for an adequate mechanical bond after the 24 hour recoat window has been exceeded.

SPREADING

When GroundWorx HB WaterBorne Moisture primer is applied, surface irregularities and porosity in the concrete may affect the coverage rate. Be sure to plan accordingly as there may be a need for extra material to provide proper coverage. The best practice is to measure and grid the floor to be sure of proper application rate.

CURE TIME

Allow GroundWorx Ultra HB WaterBorne primer to dry for a minimum of 24 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 higher humidity or for heavier traffic. Full coating properties may take up to 7 days to develop. Recoat time for application of GroundWorx Ultra ESD Top Coat at 72°F and 40% RH is approximately 5 hours. Cooler temperatures will extend this time whereas warmer may accelerate it. The coating must be tack-free and undamaged by foot traffic before re-coating.

Note: Industry best practice dictates lightly sanding the cured primer with a fine pad or screen (100-120 grit) prior to applying top coat. Maximum re-coat time without physical prep is 24 hours. After 24 hours, sanding with an 80-100 grit screen pad is required for a proper mechanical bond.

DISPOSAL

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