

INSTRUCTIONS  
**SPE-HD-WB**  
**WATERBORNE EPOXY**

**PRODUCT DESCRIPTION:** SPE-HD-WB is a two component water based epoxy coating that exhibits excellent characteristics that rival solvent based products. SPE-HD-WB has superb chemical resistance, abrasion resistance, and substrate penetration.

**RECOMMENDED FOR:** Recommended for priming or coating concrete, wood or masonry. This product can withstand exposure to many common solvents and chemicals.

## **STEP ONE - PRIMER**

### **MIXING AND APPLICATION INSTRUCTIONS (SPE-HD-WB)**

- 1.) PRODUCT STORAGE:** Store product in an area so as to bring the material to normal room temperature before using. Continuous storage should be between 60 and 90 degree F. Keep from freezing.
- 2) SURFACE PREPARATION:** Surface preparation will vary according to the type of complete system to be applied. For a one or two coat thin build system (3-10 mils dry) we recommend either mechanical scarification or acid etching until a suitable profile is achieved. For a complete system build higher than 10 mils dry, we recommend a fine brush blast (shot blast). All dirt, oil, dust, foreign contaminants and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete has an appropriate vapor barrier. This can be done by placing a 4'X4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate does not show signs of eventual hydrostatic pressure problems that may later cause disbanding. However, this product can be applied to a damp floor as long as there are not standing puddles.
- 3) PRODUCT MIXING:** This product comes pre-packaged by weight. Kits should be mixed in their entirety. If partial kits are to be used, refer to the front of this technical data for proper weight mix ratios. After the two parts are combined, mixes well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. This product is an emulsion product and should be mixed well before using.
- 4) PRODUCT APPLICATION:** The mixed material can be applied by brush or roller. Maintain temperatures within the recommended ranges during the application and curing process. Apply material with relative humidity within the parameters shown on the technical data. When the end of the pot life has been reached, you will find that the material becomes hard to apply and will actually tend to roll back up onto the roller. Do not try to continue application when the coating has reached this step. Applications made at different times with differing environmental conditions, may show slight variations in gloss.
- 5) RECOAT OR TOPCOATING:** If you opt to recoat or topcoat this product, you must first be sure that all of the solvents and water have evaporated from the coating during the curing process. The information on the front side are reliable guidelines to follow. However, it is best to test the coating before recoating or topcoating. This can be done by pressing on the coating with your thumb to verify that no fingerprint impression is left. If no impression is created, then the recoat or topcoat can be started. Always remember that colder temperatures will require more cure time for the product before recoating or topcoating can commence. Before recoating or topcoating, check the coating to insure no epoxy blushes were developed (a whitish, greasy film or deglossing). If a blush is present, it must be removed prior to topcoating or recoating. A standard type detergent cleaner can be used to remove any blush. Many epoxy overlays and coatings as well as urethanes are compatible for use as a topcoat for this product as well as multiple coats of this product.
- 6) CLEANUP:** Use PM solvent
- 7) FLOOR CLEANING:** Caution! Some cleaners may affect the color of the floor installed. Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.
- 8) RESTRICTIONS:** Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured (see technical data under full cure). It is best to let the floor remain dry for the full cure cycle. Dependent on actual complete system application, surface may be slippery, especially when wet or contaminated; keep surface clean and dry.

INSTRUCTIONS  
**CLEAR100**  
METALLIC BINDER

**PRODUCT DESCRIPTION:** CLEAR100 / SPE-META-UV is a two component 100% solids epoxy seal coat which incorporates UV resistance additives that can be used either as a coating or filled with paint chips, marble chips and colored sand mixtures to provide an infinite array of color schemes or patterns. **RECOMMENDED FOR:** Recommended for warehouses, kitchens, restrooms, and other areas where either a high build clear product is needed or where a decorative filled floor is desired and better UV resistance is needed.

## STEP TWO - BINDER

### MIXING AND APPLICATION INSTRUCTIONS (CLEAR100 / SPE-META-UV)

**1.) PRODUCT STORAGE:** Store product in an area so as to bring the material to normal room temperature before using. Continuous storage should be between 60 and 90 degree F. Low temperatures or temperature fluctuations may cause crystallization.

**2.) SURFACE PREPARATION:** The most suitable surface preparation would be a fine brush blast (shot blast) to remove all laitance and provide a suitable profile. All dirt, foreign contaminants, oil and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete is dry; this can be done by placing a 4'X4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate is dry enough to start coating. The plastic sheet testing is also a good method to determine if any hydrostatic pressure problems exist that may later cause disbanding.

**3.) PRODUCT MIXING:** When mixing metallics take part B, open and pour into bucket, next open Metallic container and slowly pour into part B while mixing thoroughly. Make sure metallics achieve wetness. Once all metallics are mixed thoroughly add Part A and again mix thoroughly. To prevent air from being introduced into the epoxy, DO NOT lift mixing blade out of epoxy while mixing.

This product has a mix ratio of 9.0# part A to 4.15# part B. Standard packages are in pre-measured kits and should be mixed as supplied in the kit. We highly recommend that the kits not be broken down unless suitable weighing equipment is available. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. After mixing, transfer the mixed material to another pail (the transfer pail) and again remix. The material in the transfer pail is now ready to be applied on the primed substrate. Improper mixing may result in product failure.

**4.) PRIMING:** A suitable primer should be used before applying this product. See the front side of this technical data for primer information. If a primer is not used, more porous substrates may cause outgassing and possible surface defects.

**5.) PRODUCT APPLICATION:** The mixed material can be applied by brush or roller. However, the material can also be applied by a suitable serrated squeegee and then back rolled as long as the appropriate thickness recommendations are maintained. Maintain temperatures and relative humidity within the recommended ranges during the application and curing process. If concrete conditions or over aggressive mixing causes air entrapment, then an air release roller tool should be used prior to the coating tacking off to remove the air entrapped in the coating. This product can be used with various colored sand in a broadcast system or other suitable aggregate can be used in conjunction with this product to achieve a variety of color and application patterns. When using as a broadcast binder, always evaluate performance parameters with a test area which is dependent on aggregate size and thickness, prior to application. Contact your representative for details as necessary.

**6. RECOAT OR TOPCOATING:** If you opt to recoat or topcoat this product, you must first be sure that the coating has tacked off before recoating. Always remember that colder temperatures will require more cure time for the product before recoating or topcoating can commence. Before recoating or topcoating, check the coating to insure no epoxy blushes were developed (a whitish, greasy film or deglossing). If a blush is present, it must be removed prior to topcoating or recoating. Many epoxy coatings and urethanes are compatible for use as a topcoat for this product as well as multiple coats of this product.

**7) CLEANUP:** Use xylol.

**8) FLOOR CLEANING:** Caution! Some cleaners may affect the color. Test each cleaner in a small area. If no ill effects are noted, you can continue to clean with the product and process tested.

**9) RESTRICTIONS:** Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured (see technical data under full cure). It is best to let the floor remain dry for the full cure cycle. Dependent on actual complete system application, surface may be slippery, especially when wet or contaminated; keep surface clean and dry.

TECHNICAL DATA  
**CLEAR100**  
METALLIC BINDER

**PRODUCT DESCRIPTION:** CLEAR100 / SPE-META-UV is a two component 100% solids epoxy seal coat which incorporates UV resistance additives that can be used either as a coating or filled with paint chips, marble chips and colored sand mixtures to provide an infinite array of color schemes or patterns. **RECOMMENDED FOR:** Recommended for warehouses, kitchens, restrooms, and other areas where either a high build clear product is needed or where a decorative filled floor is desired and better UV resistance is needed.

**SOLIDS BY WEIGHT:**

100%

**SOLIDS BY VOLUME:**

100%

**VOLATILE ORGANIC CONTENT:**

Less than 3 g/l

**STANDARD COLORS:**

Clear - gardner color 1-2

**RECOMMENDED FILM THICKNESS:**

16-18 mils

**COVERAGE PER GALLON:**

70-90 square feet per gallon @ 21-16 mils

**PACKAGING INFORMATION**

3 gallon kits (2.95 gallons net approximately)

15 gallon kits (14.75 gallons net approximately)

**MIX RATIO:**

9.0 pounds part A (.99 gallons) to 4.15 pounds part B (.49 gallons) (volumes approx.)

**SHELF LIFE:**

1 year in unopened containers

**FINISH CHARACTERISTICS:**

Gloss (60 to 90 @ 60 degrees @ glossmeter)

**ABRASION RESISTANCE:**

Taber abraser CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 36 mg loss

**FLEXURAL STRENGTH:**

7,400 psi @ ASTM D790

**COMPRESSIVE STRENGTH:**

11,200 psi @ ASTM D695

**ADHESION:**

350 psi @ elcometer (concrete failure, no delamination)

**VISCOSITY:**

Mixed = 700-1000 cps (typical)

**DOT CLASSIFICATIONS:**

Part A "not regulated"

Part B "CORROSIVE LIQUID N.O.S., 8, UN11760, PGIII"

**TENSILE STRENGTH:**

7,600 psi @ ASTM D638

**ULTIMATE ELONGATION:**

4.1%

**GARDNER VARIABLE IMPACTOR:**

50 inch pounds direct - passed

**HARDNESS:**

Shore D = 81

**CURE SCHEDULE:**

pot life - 1 1/2 gallon volume ..... 25-35 minutes @ 70° F

tack free (dry to touch).....7-9 hours @ 70° F

recoat or topcoat..... 12-16 hours @ 70° F

light foot traffic.....16-18 hours @ 70° F

full cure (heavy traffic)... .....2-7 days @ 70° F

**APPLICATION TEMPERATURE:**

60-90 degrees F with relative humidity below 85% for best results

**CHEMICAL RESISTANCE:**

REAGENT	RATING
butanol	C
xylene	C
1, 1, 1 trichloroethane	B
MEK	A
methanol	A
ethyl alcohol	C
skydrol	B
10% sodium hydroxide	E
50% sodium hydroxide	D
10% sulfuric acid	C
10% HCl (aq)	C
5% acetic acid	B

Rating key: A - not recommended, B - 2 hour term splash spill, C - 8 hour term splash spill, D - 72 hour immersion, E - long term immersion. NOTE: extensive chemical resistance information is available through your sales representative.

**PRIMER:**

Recommended SPE-HD-WB, SPE-HD-PRO

**TOPCOAT:**

Optional - SPE-HDI/SPE-WBG aliphatic urethanes or successive coats of CLEAR100 - SPE-META-UV in aggregate filled systems, with or without a clear urethane topcoat.

**LIMITATIONS:**

Color stability or gloss may be affected by environmental conditions such as high humidity, chemical exposure, UV exposure or exposure to lighting such as sodium vapor lights. Colors may vary from batch to batch. Therefore, use only product from the same batch for an entire job. This product is not UV color stable but has very good UV resistance for an epoxy product. Clear aliphatic urethane topcoats can further reduce (UV light) color changes. Substrate temperature must be 5° F above dew point. For best results, apply with a 1/4" nap roller. All new concrete must be cured for at least 30 days prior to application. Apply a suitable primer before using this product.

See reverse side for application instructions.

Physical properties are typical values and not specifications.

See reverse side for limitations of our liability and warranty.

TECHNICAL DATA  
**SPE-HD-WB**  
**WATERBORNE EPOXY**

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**RECOMMENDED FOR:** Recommended for priming or coating concrete, wood or masonry. This product can withstand exposure to many common solvents and chemicals.

**SOLIDS BY WEIGHT:**

Mixed = 53% (colors); 45% (clear); (+, - 2%)

**SOLIDS BY VOLUME:**

Mixed = 41% (colors); 36% (clear); (+, - 2%)

**VOLATILE ORGANIC CONTENT:**

Colors = 1.01 pounds per gallon (mixed) (regulatory VOC = 175g/l)

Clear = 1.0 pounds per gallon (mixed) (regulatory VOC = 230g/l)

**STANDARD COLORS:**

Off white, light gray, medium gray, tile red, beige, and amber clear. NOTE: The clear (gardner 11) is not water clear and is not suitable for topcoating over previously color coated floors. The clear is suitable as a primer or concrete sealer only.

**RECOMMENDED FILM THICKNESS:**

5 - 7 mils per coat wet thickness (yields 2-3 mils dry)

**COVERAGE PER GALLON:**

229 to 320 square feet @ 5-7 mils wet thickness

**PACKAGING INFORMATION**

2 gallon and 5 gallon kits (volume approx.)

**MIX RATIO:**

Colors = 8.55# part A (.80 gallons, approximate) to 1.75# part B (.20 gallons, approximate)

Clear = 6.55# part A (.80 gallons, approximate) to 1.90# part B (.20 gallons, approximate)

**SHELF LIFE:**

1 year in unopened containers

**FINISH CHARACTERISTICS:**

Satin gloss (40-80 at 60 degrees @ glossmeter)

**ABRASION RESISTANCE:**

Taber adrasor CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 54 mg loss

**IMPACT RESISTANCE:**

Gardner Impact, direct = 50 in.lb. (passed)

**FLEXIBILITY:**

No cracks on a 1/8" mandrel

**ADHESION:**

425 psi @ elcometer (concrete failure, no delamination)

**VISCOSITY:**

Mixed = 900-1200 cps (colors); 400-900 cps (clear) (typical)

**DOT CLASSIFICATIONS:**

Not regulated

**CURE SCHEDULE: (70°)**

pot life - 1 gallon volume ..... 1.0 - 1.5 hours

tack free (dry to touch)..... 5-8 hours

recoat or topcoat..... 7-10 hours

light foot traffic.....16-24 hours

full cure (heavy traffic).....2-7 days

**APPLICATION TEMPERATURE:**

60-90 degrees F with relative humidity below 85% for best results

**CHEMICAL RESISTANCE:**

REAGENT	RATING
acetic acid 5%	B
xylene	B
mek	A
gasoline	B
10% sodium hydroxide	C
50% sodium hydroxide	B
10% sulfuric	B
10% hydrochloric acid	B
20% nitric acid	A
ethylene glycol	C

Rating key: A - not recommended, B - 2 hour term splash spill, C - 8 hour term splash spill, D - 72 hour immersion, E - long term immersion. NOTE: extensive chemical resistance information is available through your sales representative.

**PRIMER:**

None required

**TOPCOAT:**

Optional - Many products are suitable as topcoats including multiple coats of this product. For added chemical resistance, color stability or UV stability, topcoat with a suitable aliphatic urethane. SPE-HDI, SPE-WBG or 848 - Polymer Polish. Ask your sales rep for more information or other top coating options.

**LIMITATIONS:**

Color or gloss may be affected by humidity, low temperatures, chemical exposure or sodium vapor lighting.

Product will yellow in the presence of UV light

For best results use a 1/4" or 3/8" nap roller.

Slab on grade requires moisture barrier

Substrate temperature must be 5°F above dew point.

All new concrete must be cured for at least 30 days

Product color will vary from batch to batch. Use only product from the same batch for an entire job. Improper mixing or too thick of an application may result in product failure

Light or bright colors (white, safety colors etc.) may require multiple coats or a topcoat to achieve a satisfactory hide, depending on the substrate.

Physical properties listed on this technical data sheet are typical values and not specifications.

See reverse side for limitations of our liability and warranty.

See reverse side for application instructions.

**NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND LIMITATIONS ON OUR LIABILITY**

We warrant that our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Any use or application other than recommended herein is the sole responsibility of the user. Listed physical properties are typical and should not be construed as specifications. **NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, REGARDING SUCH OTHER INFORMATION, THE DATA ON WHICH IT IS BASED, OR THE RESULTS YOU WILL OBTAIN FROM ITS USE. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, THAT OUR PRODUCT SHALL BE MERCHANTABLE OR THAT OUR PRODUCT SHALL BE FIT FOR ANY PARTICULAR PURPOSE. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT.** We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Our products contain chemicals that may CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.