INSTRUCTIONS

SPE-HD-PRO

HIGH BUILD EPOXY PRIMER

PRODUCT DESCRIPTION:
SPE-HD-PRO is a two component 93% (+/- 1%) solids epoxy colored coating designed for applications where a high solids primer is needed before applying high solids or 100% solids topcoats for build coats over concrete.
RECOMMENDED FOR: Recommended for a high build basecoat on concrete or masonry. Product is suitable in many chemical exposure environments.

STEP ONE - PRIMER

MIXING AND APPLICATION INSTRUCTIONS (SPE-HD-PRO)

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 great 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 hydro-static pressure problems exist that may later cause disbonding.

3) PRODUCT MIXING: This product has a mix ratio of 12# part A to 3.85# part B for standard colors. 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: This product is only intended as a high solids primer suitable for most substrates. However, if the surface is very porous, then a lower solids primer might be more suitable to reduce the possibility of air release problems occurring.

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. Thinner applications will not level as well as higher build applications.

6) RECOAT OR TOPCOATING: Although a topcoat is recommended, it is optional. Many topcoats are suitable for placement over this coating including both urethanes and epoxies. When topcoating this product, you must first be sure that the coating has tacked off before topcoating can commence. Before topcoating, check the coating to verify no epoxy blushes were developed (a whitish, greasy film or deglossing). If a blush is present, it must be removed prior to topcoating. A standard type detergent cleaner can be used to remove any blush. Many epoxy coatings and urethanes are compatible for use as a topcoat for this product as well as multiple coats of this product as an intermediate build coat.

7) CLEANUP: Use xylol

8) 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.

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.

INSTRUCTIONS
SPE-META-UV
METALLIC BINDER

PRODUCT DESCRIPTION: 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 (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

SPE-HD-PRO

HIGH BUILD EPOXY PRIMER

PRODUCT DESCRIPTION:
SPE-HD-PRO is a two component 93% (+/- 1%) solids epoxy colored coating designed for applications where a high solids primer is needed before applying high solids or 100% solids topcoats for build coats over concrete.
RECOMMENDED FOR: Recommended for a high build basecoat on concrete or masonry. Product is suitable in many chemical exposure environments.

SOLIDS BY WEIGHT:
93% (+/- 1%)

SOLIDS BY VOLUME:
85% (+/-2%)

VOLATILE ORGANIC CONTENT:
Part A= .14#/gallon, part B= 2.1#/gallon
Mixed VOC less than 95 g/l

STANDARD COLORS:
Off white, light gray, medium gray, tile red, beige

OTHER COLORS ALSO AVAILABLE:
Dark gray, charcoal gray, brown, tan, light blue, and green
Special colors are available upon request

RECOMMENDED FILM THICKNESS:
6-12 mils

COVERAGE PER GALLON:
133-267 square feet per gallon @ 6-12 mils

PACKAGING INFORMATION
3 gallon kit (volume approximate) and 15 gallon kits (volume approximate)

MIX RATIO:
12 pounds (1.0 gallon) part A to 3.85 pounds (0.50 gallons) part B (volumes approx.) (standard colors)

SHELF LIFE:
1 year in unopened containers

FINISH CHARACTERISTICS:
Gloss (typical 60 at 60 degrees)

ABRASION RESISTANCE:
Taber adrasor CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 45 mg loss

ADHESION:
430 psi @ elcometer (concrete failure, no delamination)

VISCOSITY:
Mixed= 500-800 cps (typical, most colors)

DOT CLASSIFICATIONS:
Part A "not regulated"
Part B "Flammable Liquid N.O.S., 3, UN1993,PGIII"

FLEXURAL STRENGTH:
8,200 psi @ ASTM D790

YIELD COMPRESSIVE STRENGTH:
8,300 psi @ ASTM D695

TENSILE STRENGTH:
6,800 psi @ ASTM D638

GARDNER VARIABLE IMPACTOR:
50 inch pounds direct - passed

ULTIMATE ELONGATION:
2.5%

HARDNESS:
Shore D= 80

CURE SCHEDULE: (70°)
pot life - 1 1/2 gallon volume .....35-55 minutes
tack free (dry to touch)..... 6-9 hours
recoat or topcoat..... 10-14 hours
light foot traffic.....12-16 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
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
70% sulfuric acid	A
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:
None required unless substrate is very porous, then use NP143/144 to eliminate air release defects.

TOPCOAT:
Recommend epoxy coatings or high builds. Topcoat with aliphatic urethanes for increased UV stability.

LIMITATIONS:
*Color stability or gloss may be affected by environmental conditions such as high humidity or chemical exposure.
*Colors may vary from batch to batch.
*This product is not UV color stable but has fairly good color stability, topcoat recommended but optional.
*Substrate temperature must be 5°F above dew point.
*For best results, apply a 1/4" nap roller.
*All new concrete must be cured for at least 30 days prior to application.
*Although a thinner or lower solids primer is generally unnecessary, some more porous substrates may benefit by the use of a lower solid primer, with this product as an intermediate coat.
*Physical properties data based on neat resin.
*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-META-UV

METALLIC BINDER

PRODUCT DESCRIPTION: 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:
90-100 square feet per gallon @ 16-18 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, UN1760, 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 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.

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.