Smith's
INDUSTRIAL
COATING SYSTEMS

EPOXY HD-100

5 - Coat Heavy - Duty Epoxy Mortar System

Aggregate Filled, Trowel Applied Resurfacer

- Heavy-Duty Mortar for Resurfacing Moderate to Severe Concrete Erosion
- Very Low VOC's & Odor
- Accepts Forklift Traffic in 24 hours
- Chemical Resistant
- Impact Resistant
- Natural or tint with ISC color packs
- High Abrasion Resistance - Great Wheeled Traffic durability

Smith Paint Products • 2200 Paxton Street • Harrisburg, PA 17111
800-466-8781 • www.smithpaints

Smith's

System Data Sheet & Application Guide Instructions

EHD100-011322

EPOXY 5-COAT EPOXY MORTAR SYSTEM HD-100

100% Solids, Chemical Resistant, Cycloaliphatic Epoxy Mortar System

DESCRIPTION: Smith's Epoxy HD-100 system is a high performance, heavy duty 3 component, trowel applied, highly chemical resistant, 100% solids epoxy mortar used to resurface eroded or uneven concrete in heavy traffic, abusive environments needing a durable, new, quick return-to-service floor.

RECOMMENDED USE:

- To resurface slightly to severely eroded concrete floor from 3/16" to 1"
- Accepts heavy forklift traffic after 24 hour cure at 72°F/50% Ambient Humidity (depending on topcoat used)
- Typical Applications include:
  - Aviation Hangars
  - Heavy Manufacturing Floors
  - Resurfacing eroded factory aisle ways and loading docks
  - Military applications
  - Automotive Manufacturing
  - Commercial and Industrial food processing/production (non-thermal shock prone areas)
  - Laboratories

HIGHLIGHTS:

- High Impact Resistance
- Excellent rolling load resistance – Great for abusive environments with carts and forklift traffic
- Easy to clean
- Good Chemical Resistance to most acids, bases, fuels, and solvents
- Stronger than concrete

SUBSTRATE SURFACE TEMPERATURE: (below 80% Humidity)

- Smith's Epoxy U100 = 60°F (15.5°C) to 90°F (32°C)
- Smith's Epoxy FC125 = 50°F (10°C) to 65°F (18.3°C)

COLORS:

ISC COLOR PACK
INDUSTRIAL SOLID COLORANT

APPROXIMATE COVERAGE:

Coverage will vary depending on the application thickness, floor profile and absorbency of the concrete. A single mixture of Smith's Epoxy HD-100 mortar system consists of:

- ¾ gallon Epoxy (Options below)
  - Smith's Epoxy U100 (*For installation temperatures between 60°F to 90°F)*
  - Smith's Epoxy FC125 (*For installation temperatures between 50°F to 65°F)*
  - Smith's Epoxy GEL150 (*For 1/8" to 3/16" thick with 40-45 lbs. aggregate volume)*
- 45 to 56.5 lbs. of Black Lab ¼" Epoxy Trowel Aggregate Blend (4 to 5 parts aggregate to 1 part by volume of mixed epoxy)

Mil Thickness (inches)	Single Batch Yield (5 Parts Aggregate to 1 Part Epoxy)
187.5 mils (3/16")	35 sq.ft.
250 mils (1/4")	28 sq.ft.
375 mils (3/8")	21 sq.ft.
500 mils (1/2")	14 sq.ft.

CURE TIMES *(based on epoxy used in mortar mixture with 50% Humidity)*

Epoxy U100	60°F	72°F	85°F
Pot-Life	35 min.	25 min.	12 min.
Working Time	45 min.	35 min.	16 min.
Recoat Window	8 to 24 hrs	4 to 24 hrs	3 to 12 hrs
Tack-Free	7 to 9 hrs	4 to 4 ½ hrs	2 to 3 hrs
Light Traffic (i.e. foot traffic)	32 hours	24 hours	20 hours
Heavy Traffic *(i.e. parked vehicles, etc.)*	72 hours	24 to 48 hrs	20 to 24 hrs
Full Chemical Resistance	10 days	7 days	6 days

Epoxy FC125	50°F	60°F	72°F
Pot-Life	30 min.	22 min.	10 to 12 min.
Working Time	40 min.	30 min.	15 min.
Recoat Window	9 to 30 hrs	4 to 24 hrs	3 to 12 hrs
Tack-Free	7 to 9 hrs	4 to 4 ½ hrs	2 to 3 hrs
Light Traffic *(i.e. foot traffic)*	32 hours	24 hours	20 hours
Heavy Traffic *(i.e. parked vehicles, etc.)*	72 hours	24 to 48 hrs	20 to 24 hrs
Full Chemical Resistance	10 days	7 days	6 days

COATING SYSTEM PROPERTIES (DRY FILM):

Property	Test Method	Results
Abrasion Resistance, *mg/loss** Taber Abraser	ASTM D4060	**See Topcoat Data Sheet*
Compressive Strength, psi (MPa)	ASTM D695	10,500 psi (72.39 MPa)
Percent Elongation	ASTM D1305	Pass
Shore D Hardness	ASTM D2240	85-90
Adhesion to Concrete	ASTM D4541	Concrete Fails
Water Absorption	ASTM D543	0.2%
Impact Resistance -Tested on concrete block	ASTM D3134	Pass
	ASTM D2794	160 in.lbs,-no delamination/chipping

LIMITATIONS:

- *Not U.V. Stable* – All epoxy will amber over time. Ambering will be more noticeable with lighter colors. Applying a solid color pigmented U.V. Stable topcoat is highly recommended over Epoxy HD-100
- This system is not recommended for use over wooden substrates as it will crack at the seams between boards

EPOXY 5-COAT EPOXY MORTAR SYSTEM

HD-100

EHD100-011322

100% Solids, Chemical Resistant, Cycloaliphatic Epoxy Mortar System

CHEMICAL RESISTANCE: Refer to the product used as the final wear surface / topcoat for chemical resistance.

INSPECT THE SUBSTRATE: Ensure the concrete is structurally sound and solid as well as free of any contaminants that may act as a bond breaker, such as oil, paint, densifier/sealers, curing compounds, wax, silicone, etc.

TEMPERATURE and HUMIDITY: Substrate temperature and materials must be maintained between 50°F (4°C) and 90°F (32°C) with less than 80% Ambient Humidity for 48 hours prior to an 24 hours after installation. Do not install coatings when the Dew point is within 5° of the temperature.

CHECK FOR MOISTURE: Testing concrete moisture via both the Calcium Chloride (ASTM F1869) and In-situ Relative Humidity (ASTM F2170) methods is highly recommended to accurately determine both the Moisture Vapor Emission Rate (ASTM F1869) and the available Moisture Content (ASTM F2170) at the time of testing. Using only one test method will only give all of the necessary information and may not indicate other potential risks such as contaminates, etc. that may pose a risk for delamination, chemical attack, etc. which are not caused by moisture vapor emissions or high alkalinity.

Smith's Epoxy MAC100 or *Smith's Epoxy MAC125*, in conjunction with proper testing and mechanical preparation, will reduce the moisture vapor emission rate to a level within the tolerance of subsequent coatings and traditional floor covering needs.

Follow the testing manufacturer's instructions precisely or visit www.astm.org, see ASTM F1869 or F2170, to purchase the test methods. Testing MUST occur within an acclimated, interior environment for the results to be valid and conclusive.

Smith Paint Products is strictly a product manufacturer and does NOT offer any testing or analysis but may be able to offer guidance to an appropriate testing lab or third party inspector. When in doubt, hire a qualified third party testing firm.

CONTAMINATION OF SUBSTRATE: Concrete is porous and can become contaminated with oils, chemical from spills, etc. which act as a bond breaker. Determine if a potential bond breaker exists and a proper course of remediation. Core sample Petrographic Analysis is the best method for testing of concrete for contaminate type and depth as well as for documenting and determining if other risks exist prior to proceeding with quoting and application of a flooring system. It is the contractors' responsibility to determine the substrate suitability and the course of action for remediation. Smith Paints is a product manufacturer, NOT a testing or analysis service but can provide references for testing labs. When in doubt, hire a third party inspector with appropriate certifications and credentials.

Petrographic core analysis is highly recommended if any of the following, including but not limited to, are thought or known to exist:

- AAR *(Alkali Aggregate Reaction)*
  - ACR *(Alkali-Carbonate Reaction)*
  - ASR *(Alkali-Silica Reaction)*
- Hydrostatic Pressure *(Pressurized Fluid / Liquid)*
- Near Surface ASR *(may occur in certain environments which have been topically treated with Sodium Silicates or Potassium Metasilicates)*
- Substrate contamination *(i.e. Oils, Solvents, PERT, PCB's, Silicone, etc.)*

CHEMICAL CONTAMINATION: Chemical contamination should be determined and may require additional testing. Once the type of contaminant is determined, contact Smith Paint Products for recommendations while following local regulations regarding contaminant and disposal.

OIL CONTAMINATION: *Smith's Oil Clean* may be used to remove oils, such as petroleum, synthetic, and food oils, from concrete and other mineral based substrates prior to mechanical preparation. Once the surface petroleum build up has been removed, mechanically prepare the concrete to a CSP of 3 to 6. If any oil "sweating" is noticed after mechanical substrate preparation, wet the concrete substrate with clean, potable water and clean the area again with *Smith's Oil Clean* allowing at least 20 minutes of dwell time then extract the liquid and thoroughly rinse with clean, potable water until no soap suds are noticed, utilizing either a wet vacuum or an auto scrubber.

Remove all standing water puddles and immediately apply *Smith's Epoxy MAC125* at greater than 10 mils (160 sq.ft. per gallon / 400 sq.ft. per kit) over the water damp dry concrete using a *10 to 12 mil V-Notched squeegee* then back roll with a 3/8" non-shed solvent resistant paint roller. Allow *Smith's Epoxy MAC125* primer to cure for a minimum of 5 hours at 72°F then sand the entire surface to ensure any contamination that may have floated to the surface of the primer during application has been removed. Vacuuum thoroughly then solvent wipe with Acetone frequently replacing with a fresh, clean rag or microfiber pad until no dust/debris can be seen on a fresh rag or microfiber pad. Allow solvent to flash off for 1 hour to allow the surface to acclimate to the air temperature prior to proceeding with additional layers of resinous coatings. Then apply 7 to 10 mils (160 to 225 sq.ft. per gallon) of either *Smith's Epoxy U100* or *Smith's Epoxy FC125* with a full broadcast to rejection of Quartz sand (broadcast at 100 sq.ft. per 50 lbs. bag). Once dry, sweep then vacuum off any loose sand prior to epoxy mortar application.

SILICATE CONTAMINATION: Substrates which may have been previously treated with silicates (Potassium or Sodium Silicates) such as polished or burnished concrete as well as certain surface hardeners such as Ashford Formula or similar may skew moisture testing results.

A good indication of potential silicate contamination may be seen during traditional moisture testing with abnormally high pH (above 11.5 to 14 pH) but relatively low CaCl reading (less than 6 lbs.) and RH readings above 85%. pH testing in conjunction with both CaCl and RH testing is a very inexpensive, easy way of identifying a potential risk and whether more in-depth testing should occur. Should further testing be necessary, concrete cores samples and Petrographic Analysis may offer the most in-depth analysis of the situation in critical circumstances.

Concrete contaminated with silicate densifiers/hardeners of these types must be mechanically prepared followed by cleaning *Smith's Green Clean Pro* 24 hours prior to moisture vapor and pH testing in order to obtain accurate readings, otherwise, all testing and subsequent moisture vapor emission warranties are null and void.

NOTE:

- *DO NOT USE* MURIATIC/HYDROCLORIC ACID TO PREPARE CONCRETE AS CHLORIDE CONTAMINATION MAY OCCUR
- When etching, ensure all Green Clean Pro has been thoroughly removed with potable water with no remaining soapy residue or cement slurry
- *DO NOT USE* Green Clean Pro on *"Green"* concrete *(less than 30 days old), Hard Trowel Finished* concrete or *previously sealed/coated/painted concrete* to including any type of curing compound

Smith's

System Data Sheet & Application Guide Instructions

EPOXY 5-COAT EPOXY MORTAR SYSTEM

HD-100

EHD100-011322

100% Solids, Chemical Resistant, Cycloaliphatic Epoxy Mortar System

NECESSARY TOOLS and EQUIPMENT:

- Plastic Sheeting or Ram Board to cover floor for mix station
- 3-Blade or Bird Cage flat ring bottom style mixing paddle
- Low speed ½" drill (Variable Speed <450 rpm, preferably with high torque)
- 5 gallon Mixing Buckets or Portable Mix Stations
- Stainless steel 3" X 12" Trowel or longer (Rounded corners)
- Premium, Non-Shed 3/8" Nap Paint Roller Covers
- 18" wide 1/16" V-Notch Squeegee
- 18" wide Paint Roller Frame with Extension Pole
- Epoxy power trowel with combination blades
- Spiked shoes or Cleats
- Screed box
- Cleaning Solvent (Acetone, MEK, Xylene)
- 18" or 24" wide Flat Rubber Squeegee
- Solvent Resistant Trigger Spray Bottle
- Denatured Alcohol for misting epoxy mortar surface
- Acetone or Xylene for cleaning tools
- Stucco Tape or Duct Tape
- Angle Grinder with 1/8" diamond cutting wheel

NOTE: The Mix Station and all application equipment should be ready for immediate use prior to mixing any product due to the epoxy pot life once mixed.

SUBSTRATE CLEANING: Prior to mechanical preparation, Detergent scrub with *Smith's Neutral Clean*, or similar, and rinse with clean, potable water to remove surface dirt, light surface grease/oil and contaminants prior to mechanical preparation.

Heavy grease and oil should be removed using *Smith's Oil Clean* followed by a thorough clean, potable water rinse using an auto scrubber or orbital floor machine utilizing soft, nylon bristle brushes. Abrasive pads are not effective at agitating low lying areas such as gouges and are not recommended for cleaning or degreasing rough textured surfaces. For more details, see previous page under "Oil Contamination" section.

If a densifier or dissipative curing compound is believed to have been present, use *Smith's Green Clean Pro* biodegradable etching gel after mechanical preparation methods utilizing an auto scrubber followed by a clean, potable water rinse or a zero degree rotating nozzle attached to a pressure washer to achieve 12,000 work units (water pressure x pressure washer psi = work units). For more details, see previous page under "Silicate Contamination" section.

Substrate must be allowed to fully dry with no dark looking damp spots to include cracks, divots, gouges, etc. prior to mechanical preparation *(except when otherwise stated when using Smith's MAC series primers)*

SUBSTRATE PREPARATION: Achieve a CSP 4 to 6 *(Concrete Surface Profile in accordance with ICRI Guideline 310.2R2013, as published by the International Concrete Repair Institute)* yielding a surface texture similar to 80 grit sand paper or more course in order to maintain long term adhesion to the substrate. *Should verification of proper adhesion be desired, follow ASTM D 4541 using an Elcometer to determine a direct tensile pull-off strength greater than 250 psi (1.7 MPa) to pass the test. It is highly recommended that a 10 foot by 10 foot test area be applied of the entire desired coating system and allowed to cure for no less than 1 month prior to performing an in-situ direct tensile bond test to determine adhesion strength values.*

Recommended preparation methods below:

- ***Steel Shot Blast (Shot size S-230 to S-330 grit recommended):*** Uniformly profile and clean concrete substrates overlapping each pass until white, clean concrete exists. Use magnetic broom to remove excess shot, sweep to remove large debris and vacuum to remove fine dust. Avoid stationary blasting as micro-cracking the concrete surface may potentially causing future coating delamination
- ***Scarify:*** Sweep to remove large debris and vacuum to remove fine dust. Scarify to uniformly remove the concrete surface until white. Thoroughly vacuum all dust and debris. Ideal preparation method for weak concrete surfaces, previously coated floors, adhesive residues, thick build applications and removing high spots in the concrete surface
- ***Etching Compound:*** *Smith's Green Clean Pro* buffered acidic etching compound to remove silicates, densifiers or dissipative curing compounds prior to mechanical preparation (i.e. shotblasting or scarifying). For more details, see previous page under "Silicate Contamination" section

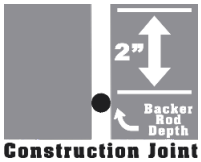
  NOTE:
  - *DO NOT USE* MURIATIC/HYDROCLORIC ACID TO PREPARE CONCRETE AS CHLORIDE CONTAMINATION CAN OCCUR
  - When etching, ensure all *Smith's Green Clean Pro* has been thoroughly removed with potable water with no remaining soapy residue or cement slurry
  - *DO NOT USE* on *"Green"* concrete *(less than 30 days old), Hard Trowel Finished* concrete or *previously sealed/coated/painted concrete* to including any type of curing compound

**Key in all termination points using a diamond cutting blade prior to any above preparation method.*

Please refer to ICRI Guideline 310.2R2013 for more in-depth preparation details and recommendations.

JOINTS: Cut all joints open with a Diamond cutting blade and fill with an appropriate semi-rigid joint filler, such as *Smith's Poly JF* or *Smith's Poly JF/FC*. Use a dry fine grade washed sand to prefill joints to provide a bond break at the bottom and to support the joint filler. Use a broom to remove any excess sand leaving the recess twice the width of joint.

Control Joint



Construction Joint

Epoxy mortar is not as flexible as a moving joint, honoring of the joint at the surface after the resurfacing layer is applied then fill will an appropriate joint filler can lessen joint telegraphing. Please contact Smith's for more recommendations for crack repairs, joint wall rebuilding, etc.

Smith's

System Data Sheet & Application Guide Instructions

EPOXY 5-COAT EPOXY MORTAR SYSTEM

HD-100

EHD100-011322

100% Solids, Chemical Resistant, Cycloaliphatic Epoxy Mortar System

PATCHING: Any voids or missing sections of concrete without a layer of existing, cured concrete to adhere to must be pre-filled with either a Type K Concrete or a shrinkage compensated high strength mortar yielding less than 12% moisture content in a few days *allowing for a minimum of 24 hour cure or longer depending on temperatures.* As Smith's Epoxy HD-100 is a mortar system, most patching isn't necessary prior to resurfacing. However, should patching less than 1" deep repair be necessary and have existing concrete to bond to, clean and mechanically prepare the concrete for the entire phase then prime the desired deep repair area with *Smith's Epoxy U100*. Immediately patch the desired area with Smith's Epoxy HD-100 mixture into the wet primer. Then proceed with resurfacing within 24 hours. Patching may also occur using *Smith's PCF-45* poured over dry sand or *Smith's SKM* for fast curing applications.

RADIUS OR CANT COVE: Prime wall surface with *Smith's Epoxy U100* used a paint brush or trim roller. Cove must be applied into fresh, wet primer otherwise the cove mix will slide across the cured primer surface.

3/4 gallon Smith's Epoxy GEL150 to 29 to 36 lbs. Aggregate

Volume Mixture for Cove:

- 2 Parts Smith's Epoxy GEL150 Part A
- 1 Part Smith's Epoxy GEL150 Part B
- OPTIONAL COLOR – 10% by volume of Smith's ISC Color Pack to mixed Smith's Epoxy GEL150

Mix for 2 minutes then continue mixing while adding the following:

- 12 to 15 Parts 40 Mesh Quartz or Mortar Sand Blend

Mix for an additional 1-2 minutes or until thoroughly blended while the drill is running slowly to avoid dry pockets of sand in the mixture. Immediately begin troweling the mixture onto the freshly primed wall and finish. *Do NOT mix more material than can be placed, finished & tied into with subsequent batches within a 15 minute period at 75°F substrate temperature.*

Cove Type & Size	Single Batch Yield *(29 lbs Aggregate to ¾ gal Epoxy)*
45° Cant Cove – 2"	21.5 lin.ft.
45° Cant Cove – 4"	10.75 sq.ft.
2" Radius Cove	30 lin.ft.
4" Radius Cove	15 lin.ft.
6" Radius Cove	10 lin.ft.
8" Radius Cove	7.5 lin.ft.

PRIMING: Mix *Smith's Epoxy U100* (2 Parts A to 1 Part B by volume) in a clean mixing vessel and pour onto the prepared substrate in a straight ribbon. Using a flat squeegee or flexible blue steel smoother, spread the mixed *Smith's Epoxy U100* in a thin, even manner leaving no bare spots. Keep a wet edge while placing additional batches working fresh material into the edge of the prior batch. The primer layer should be placed at an average of 7 to 9 mils (178 - 225 sq.ft. per mixed gallon) to allow for proper penetration into the substrate. Very porous substrates may look blotchy after priming. If the primed substrate is not uniformly glossy and wet looking, a second coat of primer may be needed to avoid drying out the mortar mix during application of the mortar layer. There is no need to wait for the first coat of primer to dry or become tacky and may begin immediately after the first coat in those circumstances. Once sufficiently primed, proceed immediately with the mortar layer application and do not allow the primer to dry beyond tacky. Only prime enough area that can be effectively resurfaced while the primer is wet or still tacky to avoid the mortar from dragging or sliding during the finishing process.

EPOXY MORTAR MIXTURE: ADD 1 gallon of *Smith's Epoxy U100* PART B TO 2 gallons of *Smith's Epoxy U100* PART A and 1 units of Smith ISC Color Packs (Optional) into the mixing vessel using the slow speed drill with appropriate mixing paddle for 1 minute. Slowly add in 4-5 bags of Trowel Mortar Aggregate Filler and continue to mix to a lump free consistency for an additional 1-2 minutes. *DO NOT mix more mortar than can be placed and finished within a 15 minute window at 75°F.*

APPLICATION: Once mixed, immediately pour out Smith's Epoxy HD-100 mortar into the screed box and placed the desired thickness on the floor. Use hand trowel to place and finish Smith's Epoxy HD-100 mortar in hard to reach areas. Always set the screed box depth 1/16" greater than the desired finished depth at the mortar will compact lightly during when trowel finished. (i.e. set 5/16" deep if 1/4" finished depth is desired).

COVERAGE: The yield varies depending on the applied thickness *(see chart on first page for approximate coverage at select average application thickness).*

FINISHING: Wearing spiked or cleated shoes, walk into the freshly placed mortar and begin using the power trowel at less than 50 rpm to compact and finish the mortar. Use a hand trowel to touch-up any imperfections during this process.

GROUT COATING: Allow the mortar to cure until hard enough to walk on without imprinting marks into the mortar surface before applying the grout coat layer to avoid surface damage to the fresh mortar. Once the mortar is hard enough to walk on without leaving an impression, the epoxy grout coat layer may proceed.

ADD 1 Part *Smith's Epoxy GEL150* Part B to 2 Parts by volume of *Smith's Epoxy GEL150* Part A into the mixing vessel using a slow speed drill (<450 RPM) with appropriate mixing paddle for 3 minutes. Avoid whipping air into the mixture. Thoroughly mix to ensure desired coating properties.

For pigmented applications, add Smith's ISC Color Pack as follows to each *Smith's Epoxy GEL150* Part A unit while drill mixing slowly until color is uniformly dispersed in the Part A with no streaks:

- 2 gallon Part A = 1 Smith's ISC Color Pack
- 10% by volume when part mixing (20% for Whites, Orange, Green's or Yellow's)

NOTE: When using *Smith's Epoxy GEL150* Part A's with ISC Color Packs added on a previous day, always drill blend the Part A's again prior to use.

Pour out in a straight line on the mortar layer. Using a flat rubber squeegee, Magic Trowel or similar, walk across the mortar evenly spreading the grout coat at a rate of 200 to 321 sq.ft. (5 to 8 mils) per mixed gallon.

Smith's

System Data Sheet & Application Guide Instructions

EPOXY 5-COAT EPOXY MORTAR SYSTEM

HD-100

EHD100-011322

100% Solids, Chemical Resistant, Cycloaliphatic Epoxy Mortar System

GROUT COATING (cont): Using a 3/8" nap roller and extension pole, immediately back roll the grout coat while wet to finish. Only mix enough of the *Smith's Epoxy GEL150* grout coat that can be spread and finished within 25 minutes at 72°F.

Allow *Smith's Epoxy GEL150* grout coat to dry hard enough to walk on without imprinting the surface before proceeding with additional layers. Process with the epoxy build coat once the grout coat layer has cured enough to walk on without imprinting/denting.

NOTE:

- If sanding of the grout coat is desired, allow the *Smith's Epoxy GEL150* to cure for at least 5 to 7 hours at 72°F before attempting to sand otherwise surface damage may occur
- If diamond grinding is desired, allow overnight cure or a minimum of 12 hours at 72°F *(Metal Bond Diamonds only as Resin Bond Diamonds may contaminate the surface risking fish eyes in subsequent layers and stick to the epoxy causing smears/burns)*

BUILD COAT: Mix 2 parts by volume *Smith's Epoxy U100* Part A to 1 part by volume *Smith's Epoxy U100* Part B adding in 1 unit Smith's ISC Color Packs to a 3 gallon mixture of *Smith's Epoxy U100*. Mix for 1 to 2 minutes. Wearing spiked or cleated shoes, walk on the grout coat layer and pour out the *Smith's Epoxy U100* then spread using a 1/16" V-Notched Squeegee. Once evenly spread, immediately back roll *Smith's Epoxy U100* build coat work out any puddles, squeegee marks and create an even finish.

OPTIONAL TOPCOATS: Sanding to degloss is always a good idea for ultimate adhesion using 80 to 120 grit metal screens on an orbital buffer to abrade the surface completely dull then clean prior to the next layer. Using courser grits, such as 60 grit, will not degloss the surface as effectively as 80 to 120 grit. More aggressive grit screens or sandpaper may create scratches, swirls and grooves in the finish of the *Smith's Epoxy U100* that topcoats may not hide. Hard to reach areas or any depressions should be made uniformly dull using an orbital palm sander. Done correctly, the surface should be uniformly dull with no scratches easily identified.

Once abraded properly, vacuum the entire surface followed by either a thorough solvent tack rag wipe or use an auto-scrubber with white, soft nylon bristle brushes and a very mild neutral detergent and then a clean water rinse. Once dry, check the surface to ensure all dust has been removed before proceeding with the next layer.

Select a topcoat appropriate for the traffic, chemical exposure and environment. Typical topcoats for Smith's Epoxy HD-100 are:

- Smith's Hi-Wear 90S
- Smith's MCU-60
- Smith's Poly-WB
- Smith's Polyaspartic 1000
- Smith's Polyaspartic 2000
- Smith's Polyaspartic 5000

SLIP RESISTANCE: Smith Paint Products recommends the use of angular slip-resistant aggregate in all coatings that may be exposed to wet, oily or greasy conditions as well as any condition where increased traction may be necessary. It is the contractor and end users' responsibility to determine the appropriate traction needs and footwear necessary for the conditions as well as setting performance parameters prior to beginning the application, testing to determine parameters have been met upon completion to achieve the end users documented safety standards.

Mock-ups are highly recommended as part of the evaluation process to determine the appropriate amount of slip-coefficient necessary for the environment as well as consulting with a third party testing firm for in-situ slip co-efficient of friction testing.

MAINTENANCE: ***The coating system must be allowed to cure for at least one week (7 days) before using any mechanical cleaning equipment on the surface and no less than 24 hours before neutral cleaner or water exposure. This includes auto-scrubbers, swing buffers, sweepers, etc. Only dust and wet mop the first week.***

Regular cleaning, to include dust mopping, is crucial to maintain the appearance and to achieve the appropriate longevity of any floor coating system. Cleaning cannot occur too often. Spills should be removed quickly. *Avoid the use of Polypropylene or abrasive bristle* (Tynex®) brushes as these are known to create scratch patterns and lower the sheen of the finish.

Proper maintenance will help to maximize your investment by removing particles that scratch and dull the appearance of a floor coating. The floor should be swept daily and scrubbed once per week or per month depending on the amount and type of soils present. Environments with oils or regulated by health departments will need a more strict cleaning regiment.

DETERGENT: Always use the least aggressive detergent necessary to remove the residue. Coated floors may only need a detergent scrub on a weekly or monthly basis depending on the environment. Daily dust mopping or water only mopping/scrubbing is highly recommended. Environments with exposure to foods, oils, chemicals, ink, etc. should be detergent scrubbed at least daily.

CAUTION: Do not drag or drop heavy objects across any floor, including coatings as scratching, gouging or chipping may occur to the concrete or the coating itself. This includes the tip of the forks on a forklift, nails protruding from a pallets, etc.

Rubber tires are prone to plasticizer migration, especially aviation tires and high performance car tires. Plasticizer will stain coating and commercial flooring leaving an amber, yellow-like stain that can be permanent. This can be more noticeable where aircraft or vehicles are stationary for longer period of time, more so in non-climate controlled environments such as aircraft hangars with lighter colored floors. To avoid plasticizer staining, use a piece of Plexiglas® or LEXAN® panels, cut a few inches in diameter larger than the tires that will rest on the panels, between the floor and the contact point of the tire when storing rubber tired vehicles on any floor, including floor coating systems.

Avoid spinning tires on the surface of a coated floor. The heat created from the friction of a spinning tire will quickly soften the coating causing permanent damage to the finish.

Should a gouge, chip or scratch occur, touch-up the damaged areas immediately to avoid chemical or water intrusion to the concrete which could create additional damage. A thin layer of clear nail polish to the damaged area will provide some minimal protection until the area can be properly repaired.

Tynex® is a registered trademark of E.I. du Pont de Nemours and Company. Plexiglas® is a registered trademark of Arkema. LEXAN® is a registered trademark of Saudi Basic Industries Corporation (SABIC)

LIMITED LIABILITY: Upon information, belief and to the best of our knowledge, the information contained herein is true accurate as of the date of issuance of this particular document and any and all information conveyed, whether expressed or implied is subject to change without prior notice. We guarantee our products to confirm to Smith Paint Products quality control standards, but not to any other standards unless specifically stated in written documentation. Smith Paint Products assumes no liability for coverage, performance, injury results from use, misuse or usage not described in any promotional materials or regulatory infraction determined by using our products. The applicator assumes all liability for use and local regulatory compliance. Promotional materials are not a supplementation to any product purchase agreement, nor should such documents be considered a type of contract, if any is reduce to writing.

Liability is limited to replacement of defectively manufactured product of the same type and cost of the originally purchased product upon presentation of a valid, fully paid invoice at the time of a claim. No warranty shall be granted for outstanding invoices or for accounts with unpaid balances until paid in full. No damages, whether consequential, liquidated or other, shall be provided under this Limitation of Liability and Limited Warranty. Should a product defect be suspected at the time of application, cease use of the product immediately and notify Smith Paint Products for investigation as you will be responsible for the cost to repair or replace any work performed with product(s) suspected of defect. Record batch codes and save all products you purchased in order for any warranty to occur along with the invoice that matches said quantity.

NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY SMITH PAINT PRODUCTS, EXPRESSED OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. DO NOT PURCHASE AND USE THIS PRODUCT IF YOU HAVE NOT AGREED TO THE ABOVE TERMS.