Smith's Product Data Sheet

Multi-Purpose Pigmented Epoxy

MPP3 Solid Color Multi-Purpose 100% Solids Epoxy

EMPP3-PDS-05202025

DESCRIPTION: Smith's Epoxy MPP*3*™ is a 2-component, solid color, 100% solids multipurpose epoxy used for a wide range of industrial, commercial and residential floor coating applications, such as but not limited to, primer, solid color, vinyl chip, shop floor or color quartz broadcast systems, epoxy mortars *(Smith's Epoxy HD-100™ system)*, patching and more.

RECOMMENDED USES:

- 3 coat / Thin-Mil coating systems
- Matrix for broadcast systems
  - Vinyl Chip
  - Quartz
  - Shop Floor
- Matrix for Smith's Epoxy HD-100 Epoxy Mortar system
- Primer
- Body Coat
- Patching cracks, gouges, chips, etc. *(when mixed with Silica Fume and/or sand)*

HIGHLIGHTS:

- Multipurpose 100% solid epoxy – Use for such applications as:
  - Industrial – manufacturing, production, warehouses, etc.
  - Institutional – Hallways, classrooms, restrooms & more
  - Pharmaceutical – warehouses, laboratories, restrooms, etc.
  - Food & Beverage *(non-thermal shock risk areas)*
  - Commercial – mechanical rooms, corridors, hallways & more
  - Residential
- Convenient Packaging
  - Mix in Part B pail
  - 1A to 1B volume mix ratio for smaller batches
- Durable & Easy to Use
  - Good Working Time
  - Medium Viscosity with Good Flow & Healing
- Low VOC & Low Odor

1A : 1B MIX RATIO

STORAGE:

Indoors between 55°F (12.7°C) to 90°F (32.2°C)

Keep Cool

DO NOT FREEZE

SUBSTRATE SURFACE TEMPERATURE:

60°F (15.5°C) to 86°F (30.0°C) with <80% Ambient Humidity

SHELF LIFE:

1 Year in original, unopened containers; use with 30 days after opening

AVAILABLE KIT SIZES & COLORS:

WHITE 5500
SCS-EMPP3-5500-3kit 3 gallon kit

BOULDER 5510
SCS-EMPP3-5510-3kit 3 gallon kit

GLACIER GRAY 5570
SCS-EMPP3-5570-3kit 3 gallon kit

MEDIUM GRAY 5585
SCS-EMPP3-5585-3kit 3 gallon kit

Available Colors:

CURE TIMES (@ 50% Relative Humidity):

Temperature (@ 50% Humidity)	60°F	72°F	85°F
Pot-life	40 min.	30 min.	25 min.
Working Time	55 min.	45 min.	35 min.
Tack Free	18 to 22 hrs.	10 to 11 hrs.	7½ to 8 hrs.
Recoat Window	Up to 24 hrs. Sanding to thoroughly degloss required beyond chemical recoat window		
Sand / Scuff	after 20 hrs.	after 14 hrs.	after 12 hrs.
Light Foot Traffic	48 hrs.	24 hrs.	18 to 20 hrs.
Heavy Traffic (i.e. Forklifts, pallet jacks)	84 to 96 hrs.	60 to 72 hrs.	36 to 48 hrs.
Full Chemical Resistance	14 days	10 days	8 days

CURED COATING PROPERTIES (DRY FILM):

Property	Test Method	Results
Abrasion Resistance, *mg/loss* *Taber Abraser	ASTM D4060	110 mg
Adhesion to Concrete	ASTM D4541	Concrete Fails
Adhesion to Steel - Pull Strength, psi (MPa)	ASTM D4541	≥3,000 psi (20.68 MPa)
Shore D Hardness	ASTM D2240	75 to 80
Hardness (Pencil)	ASTM D3362	6H
VOC's – Mixed	ASTM D3960	3 g/L
Gloss 60°	ASTM 1455	>95°
Viscosity – Mixed	ASTM D4878	390 to 430 cP
Volume Mix Ratio		1 Parts A : 1 Part B

**CS-17 Taber Abrasion Wheel, 1,000 gram load, 1,000 revolutions Results are based on conditions at 77°F (25°C), 50% relative humidity.*

APPROXIMATE COVERAGE (NEAT):

Coverage varies due to application thickness, floor profile and absorbency of concrete.
A one gallon mixture of Smith's Epoxy MPP*3* will cover:
Coverage Equation: 1604 ÷ milage = Dry Film Thickness

Mil Thickness	Coverage per mixed gallon
5 mils *(primer)*	321 sq.ft.
7 mils *(primer)*	229 sq.ft.
10 mils *(body coat)*	160 sq.ft.
12 mils *(body coat)*	133 sq.ft.
15 mils *(body coat)*	106 sq.ft.
20 mils *(body coat)*	80 sq.ft.
25 mils *(body coat)*	64 sq.ft.
30 mils *(body coat)*	53 sq.ft.
35 mils *(body coat)*	45 sq.ft.

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

MPP3 Solid Color Multi-Purpose 100% Solids Epoxy

Typical Chemical & Stain Resistance

ASTM D 1308 Test Method 3.1.1 3 Covered Spot Test of a 6 mil pigmented film after a 7 day cure prior to testing. Results are based on 24 hours covered exposure

***E** - Excellent; **G** - Good (slight sign of exposure/stains, coating recovers);*
***D** – Permanent Discoloration **NR** - Not Recommended (Permanent Damage)*

ACIDS	24 hour Exposure
Acetic Acid 25% (Vinegar)	G
Citric Acid 10%	E
Lactic Acid 88% (Milk)	NR
Phosphoric Acid 85%	G
Sulfuric Acid 25% (Battery Acid)	E
Sulfuric Acid 98%	NR
Hydrochloric Acid 32% (Muriatic)	E
Nitric Acid 50%	NR
BASES	
Ammonium Hydroxide 10%	E
Sodium Chloride 20%	E
Sodium Hydroxide 50%	E
Sodium Hypochlorite (Bleach)	G
Trisodium Phosphate 10%	E
ALCOHOLS	
Ethylene Glycol (Antifreeze)	E
Hand Sanitizer	G
Isopropyl Alcohol 91%	G
Methanol	G
SOLVENTS	
Acetone	G
d-Limonene	E
MEK	G
Methylene Chloride	D
Mineral Spirits	E
PGMEA	G
HYDROCARBONS	
Brake Fluid	NR
Hydraulic Fluid	E
Kerosene	E
Motor Oil (SAE 10W40)	E
Transmission Fluid	E
Skydrol® – LD-4	NR
MISCELLANEOUS	
Coffee	E
Coke	E
Dish Detergent (Dawn®)	E
Hydrogen Peroxide 3%	G
Ketchup	E
Monster Energy® Drink	E
Mustard	D
Povidone-iodine (BETADINE®)	D
Tide® 1%	G
Windex® (Ammonia Based)	D
Wine – Red	D

Coke® is a registered trademark of Coca-Cola. Monster Energy® is a registered trademark of Monster Energy Co. Skydrol® is a registered trademark of Eastman Chemical. Dawn® & Tide® are registered trademarks of Proctor & Gamble. BETADINE® is a registered trademark of Avrio L.P. Windex® is a registered trademark of S.C. Johnson & Son, Inc.

TEMPERATURE & HUMIDITY: Substrate temperature & materials must be maintained between 60°F (15.5°C) to 86°F (30.0°C) with less than 80% Humidity for 48 hours prior to & 24 hours after installation. Do not install coatings when the Dew point is within 5° of the temperature.

LIMITATIONS:

- *Not U.V. Stable* – All epoxy will amber over time & will be more noticeable with lighter colors
- *Wood substrates* – Must be sound, solid, free of contaminants such as oil, wax, sealers, paint, etc.as well as insect damage or rot & must meet requirements for subfloor deflection *(i.e. 300 lbs. deflection test – See page 4 under "Preparing Wooden Substrates" section for more details)*

INSPECT THE SUBSTRATE: Ensure the concrete is structurally sound & 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. Do NOT install over water damaged wooden subfloors.

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 not provide all 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.

Maximum moisture readings are as follows:

ASTM F2659	*<4% MC*
ASTM F1869	*<3 lbs. / 1,000 sq.ft. / 24 hours with 9 to 12 pH*
ASTM F2170	*<75% Relative Humidity*
ASTM F3441	*9 to 12 pH using a pH Pen with Distilled Water*

**Additional testing & treatment may be necessary below 8.5 or greater than 12 pH*

Visit www.astm.org to purchase the test methods. Interior environments require an acclimated environment for the results to be valid & conclusive.

Testing pH levels with a pH pencil or Litmus paper along with distilled water is a very inexpensive, easy way of identifying a potential risk, in conjunction with Moisture Vapor testing methods to determine whether more in-depth testing should occur.

Smith's Epoxy MAC100, *Smith's Epoxy MAC125*, *Smith's Epoxy VCB[38]* or *Smith's Epoxy VCB[46P]*,in conjunction with proper testing & mechanical preparation, can suppress the moisture vapor emission rate to a level within the tolerance of subsequent coatings & traditional floor covering needs.

Smith Paint Products is strictly a product manufacturer which 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 with appropriate certifications & credentials.

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 contaminant 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.*

Delamination and/or breakdown due to the following causes are examples of substrate contamination:

- AAR (Alkaline Aggregate Reaction)
  - ACR (Alkali-Carbonate Reaction)
  - ASR (Alkali-Silica Reaction)
- 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.)

ASTM℠ is a registered trademark / service mark of ASTM International

SILICATE CONTAMINATION – Substrates previously treated with 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. In some cases where the concrete did not have enough available calcium hydroxide for the silicate to react with when originally applied may result in crystallized yet unreached, water soluble silicates that can expand beneath a coating causing the surface of the concrete to fracture at the bond line between the coating & the concrete.

Potential silicate contamination may be seen during traditional moisture testing with 11.5 to 14 pH along with CaCl results below 6 lbs. & RH readings above 85%. In such cases, concrete cores samples in conjunction with Petrographic Analysis may offer the most in-depth analysis of the situation.

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 & pH testing in order to obtain accurate readings.

NOTE:

- *DO NOT USE* MURIATIC / HYDROCLORIC ACID TO PREPARE CONCRETE AS CHLORIDE CONTAMINATION MAY 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 Smith's 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

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

OIL CONTAMINATION – *Smith's Oil Clean* may be used to remove oils, such as petroleum, synthetic, or food oils, from concrete & other mineral based substrates surfaces prior to mechanical preparation.

DO NOT USE simple green® or Soy based detergents.

Once the oil & grease have been removed from the surface & thoroughly rinsed with clean, potable water, mechanically prepare the concrete as stated in the "Mechanical Preparation of Concrete" sub-section under "Substrate Preparation" later in this page.

If oil continues to "weep" out of the concrete after mechanical preparation, clean again with *Smith's Oil Clean* then encapsulate the oil/grease remaining in the concrete while the substrate remains "damp dry" with water but ensure no standing water puddles exist prior to application of 10 to 12 mils of *Smith's Epoxy MAC125* primer. Allow to cure for a minimum of 5 hours or overnight then use a sanding screen under a green floor buffing pad under a low-speed floor machine to remove any contaminates that may have floated to the surface of the epoxy before it hard set as well as scuff the surface dull. Vacuum off the sanding dust then tack rag with Acetone on a microfiber mop repeating with a fresh, clean microfiber until no dust residue can be seen on the microfiber

DO NOT USE Denatured Alcohol or Xylene for this application.

simple green® is registered trademark of Sunshine Maker's Inc. Ashford Formula® is a registered trademark of Curecrete Chemical Company, Inc.

Wood substrates contaminated with oil require removal then replacement of the oil contaminated area with new wood *(i.e. APA rated Exterior or Marine Grade)* to ensure proper adhesion.

SUBSTRATE PREPARATION:

NOTE: *DO NOT USE* MURIATIC / HYDROCLORIC ACID TO PREPARE CONCRETE AS CHLORIDE CONTAMINATION CAN OCCUR.

TEMPORARY HEAT: *Moisture vapor is emitted by fueled temporary heaters which creates condensation to occur on the floor surface and may cause an amine blush with epoxy products. Many temporary heating methods also can emit unburned petroleum into the air which act as a bond breaker once it falls onto the surface of the substrate*

- Precautions must be taken when using LP, gasoline, diesel, etc. fueled temporary heat
- Always shut off temporary heat at least 2 to 3 hours prior to application to reduce risk of an amine blush
  - Fisheyes are a result of surface contamination or an amine blush
- Ensure exhaust emissions & toxic fumes from temporary heaters exhaust to the exterior of the building to prevent health hazards & damage to work.
- Always clean the mechanically prepared surface with *Smith's Oil Clean* or TSP using an auto-scrubber followed by a thorough clean water rinse when temporary heat has been in use

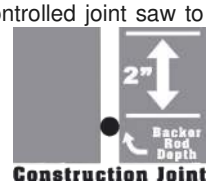
MECHANICAL SUBSTRATE PREPARATION: Achieve a CSP 2 to 5 *(Concrete Surface Profile in accordance with ICRI Guideline 310.2R2013, as published by the International Concrete Repair Institute)* on concrete to yield an absorbent substrate. Extent of concrete surface profile *(CSP)* necessary will be determined based on the total thickness of the floor coating system being applied while considering the type and extent of traffic anticipated. Please refer to the individual system application guide or contact Smith Paint Products for recommendations. As a rule thumb, thicker coating systems require a more extensive surface profile / texture than a thin system.

If a densifier or dissipative curing compound is believed to have been present, see "Silicate Contamination" section on the left column of this page for treatment using *Smith's Green Clean Pro* after mechanical preparation.

JOINTS – Honor expansion joints at the finish floor elevation. Follow ACI 224.3R-95: Joints in Concrete Construction guidelines for proper filling of construction and control joints. *ACI recommends allowing a concrete slab to cure for a minimum of 60 to 90 days or longer to allowing the slab to shrink and acclimate to the intended joint width thus reducing the risk of joint wall separation from the joint filler.* Cooler climate applications must be remain at a minimum of 45°F substrate temperature for no less than 10 days prior to as well as 7 to 10 days after filling with an appropriate semi-rigid joint filler, such as *Smith's Poly JF* or *Smith's Poly JF/FC*, ideally longer if possible. Static joints may allow the coating system to bridge over *Smith's Poly JF* but it is NOT recommended to install a floor coating system over caulking, silicone, cement patching compounds, Polyurea & traditional Polyurethane flexible joint fillers.

Always route out joints with an appropriate width diamond cutting blade attached to a vacuumized and dust controlled joint saw to flush out debris and freshly clean the side walls of the joint. Ensure that all loose edges and broken pieces of the concrete are removed and repaired prior to filling the joint with *Smith's Poly JF* or *Smith's Poly JF/FC*. Should joint walls require extensive repairs, cut out the weak concrete back to a sound, solid area then fill with *Smith's SKM*, *Smith's Epoxy FRM* or similar.

Control Joint

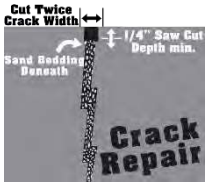


Construction Joint

JOINTS (cont.) – *NOTE* - Plastic Media, Soda Blasting, etc. do not achieve enough of a profiled surface and will require additional chemical etching to properly adhere the coating to metal. Rust scale must be removed with a scraper prior to wire brushing or sand blasting for mechanical surface preparation of the metal. Then solvent wash or use an automotive Brake Parts Cleaner for small, isolated rinsing. Allow solvent to evaporate then paint the metal surface with an anti-corrosion primer then allow to fully dry prior to joint filling or concrete repairs to protect against further corrosion to the metal.

Fill the bottom of the joint with a bond breaker, such as sand, especially for use in shallow joints less than 2" depth to support the joint filler and assist in sag reduction. *Use backer rod only if the joint filler is to be applied deeper than 2" below the concrete surface to the top of the backer rod.*

CONCRETE SUBSTRATE REPAIRS – A variety of different, compatible coating materials may be used to repair chips, gouges, etc., to include but not limited to, *Smith's SKM*; *Smith's Epoxy GEL-150*; *Smith's Poly-JF* or *Smith's Poly-JF/FC*; *Smith's Epoxy U100* / *Smith's Epoxy FC125* mixed with Silica Fume; Smith's Epoxy FRM fast repair mortar kit; *Smith's Poly PCF-45* or similar *(Click on product name for detailed instructions).* Ensure resinous patch is hard enough to walk on without imprinting or damage before proceeding with next steps.



Resinous repair products are preferred, however, if a cementitious repair compound is used, ensure the following are met:

- *non-water soluble / recommended for exterior use*
- >5,000 psi Compressive Strength
- Below 4% MC *(ASTM F2659)* when testing over the concrete repair product using a concrete moisture impedance meter prior to applying coating
- Mechanical prepare the substrate beneath of the cement-based product to the appropriate CSP necessary for the coating system as well as the surface of the cement product prior to coating
- Portland or CSA cement-based only
  - *Rated for direct high load traffic*
  - *Recommended for use in wet or dry environments*
- *Not recommended over Gypsum-based cementitious products, to include synthetic gypsum products*

PREPARING WOODEN SUBSTRATES: Wood substrates APA rated *(either exterior grade or marine grade)* must be sound, solid, firmly fastened to the joints with no loose boards/planks, free of contaminants such as oil, wax, sealers, paint, etc. and without any insect damage or rot. The floor should not deflect under a 300 lbs. load more than the "span" divided by 360 for residential use or by 720 for commercial applications. Examples of maximum deflection below:

- Residential
  - L/360 *(300 lbs. deflection test) or <1/2" (13mm) deflection in 15 ft. (4.6 m)*
- Commercial or subfloors with 19.2" (48.7 cm) o.c. joists & 24" (61 cm) o.c. truss systems
  - L/720 *(300 lbs. deflection test) or <1/4" (6mm) deflection in 15 ft. (4.6 m)*

Thoroughly sand the entire surface to be coated then vacuum to remove all dust and debris paying close attention to seams, board joints, knot holes, fastener holes, etc. Seal off any holes / penetrations using foam sealants, which may require fire stop foam depending on local building codes. All board seams or other voids which may allow liquid to leak through should be patched or skimcoated with an appropriate resinous based product, such as *Smith's SKM*, *Smith's Epoxy GEL-150*, *Smith's Poly-JF*, *Smith's Poly-JF/FC* or similar.

NON-POROUS SUBSTRATES & EXISTING COATINGS:
Always clean the surface prior to mechanical preparation to ensure potential bond breakers and surface contaminates have been thoroughly removed to avoid spreading the contamination across the floor. Once clean, sound and solid substrates should be checked for compatibility with Smith's Epoxy MPP3 and if compatible, begin mechanically abrading the surface to remove any weak areas and to scratch as well as degloss the entire area desired to be coated.

Should verification of proper adhesion be desired over an existing coating, 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.

If Smith's Epoxy MPP3 is to be used as part of a system, follow the recommended preparation methods for individual system application.

**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.

NECESSARY TOOLS and EQUIPMENT:

- Plastic Sheeting to cover floor for mix station
- Low speed ½" drill (Variable Speed ≤450 rpm)
- Mixing paddle (*See examples below)
- Mixing buckets or portable mix stations
- Premium, non-shed 3/8" nap paint roller covers
- Paint roller frame with extension pole
- Spiked shoes or cleats
- Cleaning solvent (Acetone, Denatured Alcohol, MEK, or Xylene)
- Notched squeegee, magic trowel, flat squeegee or flex steel blade smoother (Application dependent)

NOTE: *Mix station & all application equipment should be ready for immediate use prior to mixing any product due to the epoxy pot-life once mixed. Only mix enough Smith's Epoxy MPP3 to be placed within 20 minutes allowing for proceeding batches to tie into the wet edge for an additional 15 minutes at 72°F. Higher temperatures & humidity will shorten pot-life.*

Smith's Product Data Sheet

Multi-Purpose Pigmented Epoxy

MPP3 Solid Color Multi-Purpose 100% Solids Epoxy

EMPP3-PDS-05202025

PRIMING:
After mechanically preparing the substrate, prime with:

CONCRETE:

- Smith's Epoxy FW[88] – Coat after 2 to 3 hours at 72°F up to 24 hours
- Smith's Epoxy U100 – Coat after 4 to 5 hours at 72°F up to 24 hours
- Smith's Epoxy FC125 – Coat after 2 ½ to 3 hours at 72°F up to 24 hours
- Smith's Epoxy MP[300] – Coat after 15 hours at 72°F up to 24 hours
- Smith's Epoxy MPP3 – Coat after 12 hours at 72°F up to 24 hours

***OIL STOP priming** (over concrete only):*

- Remove oil with Smith's Oil Clean then mechanically prepare the substrate to a CSP 2 to 6 prior to installing the 2 coat priming process for Smith's Epoxy MAC125 – 2 to 3 hour cure at 72°F between coats, sand before next layer

HIGHLY ABSORBENT SUBSTRATES** (i.e. lightweight concrete, wood, etc.) **should be double primed using:

- Smith's Epoxy FW[88]
  – Recoat when hard set, typically within 2 to 3 hours at 72°F

***FILLING GROUT JOINTS BETWEEN EXISTING TILE** (Ceramic, Porcelain, Quarry or Stone):*

- Smith's SKM (trowel at feather edge skim coat up to 5")
  – Apply next layer after 2½ to 3½ hours at 72°F up to 24 hours

RESURFACING OVER TILE & GROUT JOINTS:

- Smith's Poly-FLEX (Self Leveling >1/32"/30 mils up to 5" thick)
  – Coat after 4 to 5 hours at 72°F up to 24 hours

PRIMING EXISTING TILE** (Ceramic, Porcelain, Quarry or Stone) **AFTER DIAMOND GRIND:

- Smith's Epoxy GEL-150 (Flat Squeegee or Skimcoat trowel)
  – Coat after 8 to 10 hours at 72°F
- Smith's SKM (Skimcoat & troweling up to 5")
  – Coat after 2½ to 3½ hours at 72°F
- Smith's Epoxy MPP3 (Squeegee then back roll)
  – Coat after 12 to 15 hours at 72°F
- Smith's Epoxy U100 (Squeegee then back roll)
  – Coat after 4 to 5 hours at 72°F
- Smith's Epoxy FC125 (Squeegee then back roll)
  – Coat after 2 ½ to 3 hours at 72°F
- Smith's Epoxy MAC100 (Squeegee then back roll)
  – Coat after 12 hours at 72°F
- Smith's Epoxy MAC125 (Squeegee then back roll)
  – Coat after 2 to 3 hours at 72°F

MIXTURE: Open all Part A's of Smith's Epoxy MPP3 then use a low speed drill *(≤450 rpm)* with a clean mixing paddle to stir. *"Stick" mixing is NOT recommended.*

***MIXING FULL 3** GALLON KITS –*
Premix all Smith's Epoxy MPP3 Part B containers needed for the area then box Part B colors to ensure color consistency, especially when using multiple batch numbers.

Combine with Part A in a 5 gallon pail. Mechanically mix for 3 minutes using a low speed *(≤450 RPM)* drill with a paint mixing paddle.

ALWAYS BOX COLORS!
to Ensure Colors Match between BN#'s

MIXING BY VOLUME – Pre-mix Part B to distribute any settling at the bottom of the container using a drill with a mixing paddle for at least 1 minute then box all the Part B's needed for the area to be installed and box colors to ensure color consistency, especially important when mixing multiple batch numbers.

1A : 1B MIX RATIO Separately measure each component at an equal volume ratio then combine in a separate, clean mixing vessel. Mix using a ½" low speed drill *(less than ≤450 rpm)* with a paint mixing paddle for 3 minutes. Immediately pour out in ribbons onto the floor then spread using the appropriate tooling for the application. Repeat process tying into the wet edge with freshly mixed Smith's Epoxy MPP3. Immediately back roll with a paint roll attached to an extension pole to finish. For broadcast systems, begin broadcasting media after back roll.

For detailed information regarding different system applications, please visit:
Epoxy System Application Guides - smithpaints.com.

NOTE:

- *DO NOT TURN MIXING VESSEL UPSIDE DOWN ON THE SUBSTRATE TO ALLOW RESIDUAL PRODUCT TO DRAIN ONTO THE FLOOR TO AVOID THE RISK OF ANY UNMIXED OR NON-THOROUGHLY CATALYZED PRODUCT FROM THE SIDES / BOTTOM OF THE MIXING VESSEL FROM REACHING THE FINISHED FLOOR.* Best practice, pour contents of mixing vessel into a new container, mechanically stir to ensure thorough blending then transport to the floor for application as described below
- When using pigmented Smith's Epoxy MPP3, always mechanically pre-mix the pigmented component (Part B) prior to use
- It is best practice to "box" solid colors, especially when using product from multiple batches, to ensure consistent solids colors

COVERAGE: **See chart on page 1 of this document.*

OPTIONAL LAYERS or TOPCOATS: Allow overnight cure before walking on, sanding or applying additional layers and/or topcoats. **See page 1 for approx. cure time references based on typical application temperatures.*

Sand the cured epoxy using a low-speed floor machine *(<3,000 rpm Orbital / <400 rpm square)* with 100 to 120 grit screens to scuff the surface then thoroughly clean then solvent wipe / tack rag between coats for optimal appearance when a gloss topcoat will be the final layer.

Recommended Topcoats:

- Smith's Poly-WB (High Performance, Waterborne Polyester Polyurethane)
- Smith's MCU-60 (Solvent-based, High Gloss 60% Solids, Moisture Cured Urethane)
- Smith's Polyaspartic 1000 (Fast Cure, High Gloss, 76% Solids Polyaspartic)
- Smith's Polyaspartic 2000 (Extended Pot-Life, High Gloss, 76% Solids Polyaspartic)
- Smith's Polyaspartic 5000LO (High Gloss, High Build, 86% Solids Polyaspartic)
- Smith's CRU'86 (Low Odor, High Gloss, 86% Solids Chemical Resistant Urethane)
- Smith's Hi-Wear 90S (Low Odor, Low Sheen, 90% Solids High Traffic CRU)

MPP3 Solid Color Multi-Purpose 100% Solids Epoxy

SLIP RESISTANCE: Smith Paint Products recommends the use of angular slip-resistant aggregate, such as *Smith's Resin Sand*, 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 & end users' responsibility to determine the appropriate traction needs & 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 for the environment.

MAINTENANCE: *The coating system must be allowed to cure for no less than one week (7 days) before using any mechanical cleaning equipment on the surface. This includes auto-scrubbers, swing buffers, sweepers, etc. Only dust & wet mop the first week for most wear surfaces. If a topcoat of a Smith's Polyaspartic was applied, wait a minimum of 3 days before using mechanical cleaning equipment. See product data sheet for the wear surface / topcoat used for recommended cure rate for use of a neutral cleaner or water exposure.*

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

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

DETERGENT: Always use the least aggressive detergent necessary to remove the residue. Typically, 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 daily, possibly enough after every shift.

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 pallet, etc.

Rubber tires are prone to plasticizer migration, especially aviation tires & high-performance car tires. Plasticizer will stain coating & commercial flooring leaving an amber, yellow-like stain that can be permanent. This can be more noticeable where aircraft or vehicles are stationary for a longer period, 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 & the contact point of the tire when storing vehicles with rubber tires on any floor, including floor coating systems. Citric based degreasers will help to remove plasticizer residues from a coating surface & reduce staining risk if used before a stain sets in.

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).