Smith's Product Data Sheet

EPOXY GEL-150 Thixotropic, 100% Solids, Regular Cure Epoxy

GEL150-PDS-092523

DESCRIPTION:

Smith's Epoxy GEL-150 is a regular cure, 2-component, 100% solids Thixotropic Epoxy with a gel-like consistency for use vertically or horizontally for interior application. Use as a grout coat over epoxy mortar and rough texture broadcast systems, as resinous cove with the addition of Quartz, plus general purpose patching of chips, gouges, etc. Smith's Epoxy GEL-150 is a user-friendly low odor, low VOC coating system. May be used to achieve an orange peel finish when applied with a painter roller. Semi-Transparent or for solid colors, accepts Smith's ISC Industrial Solid Color Packs.

RECOMMENDED USES:

- Grout Coat for Epoxy or Cementitious Urethane mortars
- Orange Peel texture over:
  - o Epoxy Mortar & Seamless wall systems
- As a binder for Cove with Color Quartz & Mortar systems
- Vertical Seamless Wall Coating systems
- CMU Block Filler
- Filler for fine cracks, gouges & chips

HIGHLIGHTS:

- Heavy Duty for abusive environments
- Rated for forklift traffic
- Good Pot-Life & Working Time
- May be used to achieve an orange peel texture finish
- Chemical Resistant
- Low Odor & Low VOC
  - o Complies with VOC regulations for industrial maintenance coatings in the OTC & SCAQMD
  - o FDA Title 21 subparagraph (b) CFR 174.5 – indirect food contact

STORAGE:

Indoors between 50°F (10°C) to 90°F (32°C)

SUBSTRATE SURFACE TEMPERATURE:

55°F (12.7°C) to 86°F (30°C) with below 80% Ambient Humidity
**Do not install coatings when the Dew point is within 5° of the temperature.*

SHELF LIFE:

1 Year in original, unopened containers

AVAILABLE KIT SIZES: *(*NON-STOCKING PRODUCT – MADE TO ORDER)*

*SCS-EPGEL150-0.75Kit	3/4 gallon kit
SCS-EPGEL150-1.5kit	1.5 gallon kit
SCS-EPGEL150-3kit	3 gallon kit

COLORS:

Smith's ISC Industrial Solid Color Packs – All Colors

MIX RATIO – BY VOLUME:

Neat - 2 Parts A to 1 Part B
(OPTIONAL Solid Color) 3.5% to 7% Smith's ISC colorant

CURE TIMES (@ 50% Relative Humidity):

Temperature (@ 50% Humidity)	60°F	72°F	85°F
Pot-life - Neat, unfilled - Cove, mixed with Quartz	 35 min. 45 min.	 30 min. 40 min.	 20 min. 30 min.
Working Time - Neat, unfilled - Cove, mixed with Quartz	 40 min. 50 min.	 35 min. 45 min.	 30 min. 40 min.
Tack Free	15 to 17 hrs.	10 to 11 hrs.	6 to 6½ hrs.
Recoat Window	18 to 20 hrs. up to 30 hrs.	12 to 13 hrs. up to 24 hrs.	8 to 8½ hrs. up to 24 hrs.
Sand / Scuff	after 24 hrs.	after 18 hrs.	after 12 hrs.
Light Foot Traffic	36 hrs.	24 hrs.	18 to 20 hrs.
Heavy Traffic (i.e. Forklifts, pallet jacks)	72 to 96 hrs.	48 to 72 hrs.	36 to 48 hrs.
Full Chemical Resistance	14 days	10 days	8 days

CURED COATING PROPERTIES (DRY FILM @ 7 day cure):

Property	Test Method	Results
Abrasion Resistance, *mg/loss* *Taber Abraser	ASTM D4060	112 mg
Adhesion to Concrete	ASTM D4541	Concrete Fails
Adhesion to Steel - Pull Strength, psi (MPa)	ASTM D4541	≥3,000 psi (21 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	3,000 to 3,200 cP
Volume Mix Ratio		2 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 Epoxy GEL-150 will cover:
Coverage Equation: 1604 ÷ milage = Dry Film Thickness

Mil Thickness (inches)	Coverage per mixed gallon
7 mils	229 sq.ft.
8 mils	200 sq.ft.
10 mils	160 sq.ft.
12 mils	133 sq.ft.
15 mils	106 sq.ft.
20 mils	80 sq.ft.

See Page 5 for yield when mixed with Quartz

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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

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TEMPERATURE & HUMIDITY: Substrate temperature & materials must be maintained between 55°F (12.7°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
  - o Smith's Epoxy U.V. Absorber additive is available *(sold separately)* which will slow the ambering but will not eliminate the eventual darkening
- *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)* & In-situ Relative Humidity (ASTM F2170) methods is highly recommended to accurately determine both the Moisture Vapor Emission Rate *(ASTM F1869)* & the available Moisture Content *(ASTM F2170)* at the time of testing. Using only one test method will not provide all necessary information nor indicate other potential risks such as contaminates which may pose a risk for delamination, chemical attack, etc. that 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

Test pH levels with a pH pencil or Litmus paper along with distilled water as 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 or *Smith's Epoxy MAC125*, in conjunction with proper testing & mechanical preparation, will reduce the moisture vapor emission rate to a level within the tolerance of subsequent coatings & 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 & conclusive.

Smith Paint Products is strictly a product manufacturer & 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 & can become contaminated with oils, chemical from spills, etc. which act as a bond breaker. Determine if a potential bond breaker exists & a proper course of remediation. *Core sample Petrographic Analysis is the best method for testing of concrete for contaminant type & depth as well as for documenting & determining if other risks exist prior to proceeding with quoting & application of a flooring system. It is the contractors' responsibility to determine the substrate suitability & the course of action for remediation.*

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

- AAR (Alkaline Aggregate Reaction)
  - o ACR (Alkali-Carbonate Reaction)
  - o 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.)

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CLEANING: Detergent scrub with Smith's Neutral Detergent, or similar, then 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. 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.

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 wherein the concrete did not have enough available calcium hydroxide for the silicate to react with when originally applied may result in crystallized yet unreacted, water soluble silicates that can expand beneath a coating causing the surface of the concrete to fracture at the bond line between the coating and the concrete.

Potential silicate contamination may be seen during traditional moisture testing with abnormally high pH *(above 11.5 to 14 pH)* along with CaCl results below 6 lbs. and RH readings above 85%. Should further testing be necessary, 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 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

OIL CONTAMINATION **–** Smith's Oil Clean may be used to remove oils, such as petroleum, synthetic, or food oils, from concrete & other mineral based substrate surfaces prior to mechanical preparation. Wood substrates contaminated with oil may require removal & replacement of the oil contaminated area with new wood *(i.e. APA rated Exterior or Marine Grade)* to ensure proper adhesion.

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).*

Ashford Formula® is a registered trademark of Curecrete Chemical Company, Inc.

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

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 can 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
  - o 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 Smith's Epoxy GEL-150 is to be used as part of a system, follow the recommended preparation methods for the individual system.

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

CONCRETE SUBSTRATE REPAIRS **–** Patching of chips, gouges, etc. may be repaired with a variety of different, compatible coating materials, to include but are not limited to, Smith's SKM, Smith's Epoxy GEL-150, Smith's Poly PCF-45 or similar. Saw cut cracks open with crack chaser to remove the weak wall of the crack on both sides and clean out debris then thoroughly vacuum prior to repairs. Small, isolated uneven, low gouges can be prepared using a needle scaler. Ensure resinous patching products are hard enough to walk on without imprinting or damage before proceeding with next step.

Repairs utilizing water-based cement compounds must be fully cured then mechanically prepared prior to coating. Ensure the following for proper adhesion and long term performance:

- Fully cured which can be tested per ASTM F2659 with ≤4% MC or a mat test for no less than 4 hours per ASTM D4263
  - o Portland Cement based = 2 to 3 days for each ¼" average thickness
  - o Calcium Alumina-based cement = 24 hours for each ¼" average thickness
- Rated direct wear traffic
- Cement-based - Calcium Alumina, CSA or Portland cement based only
  - o NOT RECOMMENDED FOR USE OVER UNDERLAYMENT GRADE PATCH / LEVELERS including *polymer modified synthetic gypsum-based*
- Non-water soluble – rated for both interior & exterior use
- Minimum 5,000 psi. once fully cured

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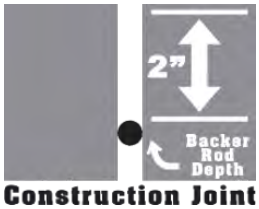
JOINTS – Honor expansion joints at the finish floor elevation. Follow ACI 224.3R-95: Joints in Concrete Construction guidelines for proper filling of construction and control joints. *ACI recommends allowing a concrete slab to cure for a minimum of 60 to 90 days or longer to allowing the slab to shrink 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 & dust controlled joint saw to flush out debris & freshly clean the side walls of the joint. Ensure that all loose edges & broken pieces of the concrete are removed & 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

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 & 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.*

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. & 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 & 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 joints 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 prior to proceeding with the appropriate over coating system for over wood substrates.

NON-POROUS SUBSTRATES & EXISTING COATINGS:

Always clean the surface prior to mechanical preparation to ensure potential bond breakers & surface contaminates have been thoroughly removed to avoid spreading the contamination across the floor.

Once clean, sound & solid substrates should be checked for compatibility, & 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. Mechanical preparation of an existing coating varies between diamond grinding to sanding/screening dull but varies based on the existing conditions, type of existing coating system & the type of coating system desired to install.

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 then allowed to fully cure 7-10 days prior to performing an in-situ direct tensile bond test.

**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
- 3-Blade or Bird Cage flat ring bottom style mixing paddle
- Low speed ½" drill (Variable Speed ≤450 rpm)
- 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, Xylene)
- Magic Trowel, Flat Squeegee or Flex Steel Blade Smoother
- Radius Cove Trowel (when applicable)
- Margin Trowel (applicable during cove or patching applications)

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. Mix only enough Smith's Epoxy GEL-150 which can be placed within 20 minutes allowing for proceeding batches to tie into the wet edge for an additional 20 minutes at 72°F. Higher temperatures & humidity will shorten pot-life as well as working time.*

COVE TERMINATION STRIPS (OPTIONAL) – Cove Strips are fixed to the wall at the termination edge and will set the finish of the cove 1/8" to 3/16" off the wall surface. Once the wall is prepared & clean, snap chalk line on the wall at the desired height from the floor in all areas to receive cove & ensure that the height of the cove is consistent around the room. Adhere the cove strip adhesion tape to the wall with the finish side up then prime the wall below the strip with Smith's Epoxy GEL-150 prior to mixing Epoxy GEL-150 with sand or Quartz. If using screws, ensure only flat head screws are used & countersunk into the wall without extending beyond the edge of the cove strip mounting surface.

DO NOT APPLY MORE PRIMER THAN CAN RECEIVE COVE WITHIN 20 MINUTES.

PRIMING – Cove or Walls: Prime wall first with neat Smith's Epoxy GEL-150 using a brush or roll apply onto the area to receive the resinous coving system.

Immediately trowel on the cove mixture over the wet primer while still fresh. Do not prime more area than can receive the cove mixture within 40 minutes after priming began.

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COVE: Prepare the horizontal floor areas prior to installation of the cove. Prepare vertical surfaces via sanding of metals, FRP, existing painted surfaces or diamond grinding of hard surfaces such as concrete, ceramic tile, etc. The vertical surface must be clean, sound, abraded *(existing coatings, FRP, Metal, etc.)* & well bonded. Any water damaged or rotten areas must be removed & repaired prior to priming.

Always apply into fresh, wet primer but no drier than tacky. Only prime enough area that may receive & finish cove within 40 minutes at 72°F. Prime surface with Smith's Epoxy GEL-150. Allow the primer to continue onto the horizontal surface out from the wall slightly *(at least 2" away from wall)*.

COVE MIXTURE –

- 2 Parts Smith's Epoxy GEL-150 Part A
- 1 Part Smith's Epoxy GEL-150 Part B
- SOLID COLOR *(Optional)* – 3.5 to 7% by volume of Smith's ISC Color Pack mixed with Smith's Epoxy GEL-150 for 2 minutes
- U.V. Absorber additive *(Optional)* – 1% by volume
- 12 to 15 Parts Aggregate (i.e. 40 Mesh Quartz, Wedron Sand or Epoxy Mortar Sand Blend)

Mix for an additional 2 to 3 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 & 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.

Yield for ¾ gallon kit of Epoxy GEL-150 cove mix

Cove Type & Size	Single Batch Yield	
	Loose Mix (25 lbs. sand)	**Stiff Mix** (36 lbs. sand)
45° Cant Cove – 2"	18.5 lin.ft.	22.5 lin.ft.
45° Cant Cove – 4"	9 lin.ft.	11 lin.ft.
2" Radius Cove (1/8" Cove strip top with 1" radius bottom)	26 lin.ft.	32 lin.ft.
2" Radius Cove (Flush troweled top with 1" radius bottom)	52 lin.ft.	64 lin.ft.
4" Radius Cove (1/8" Cove strip top with 1" radius bottom)	13 lin.ft.	16 lin.ft.
4" Radius Flush Cove (Flush troweled top with 1" radius bottom)	26 lin.ft.	32 lin.ft.
6" Radius Cove (1/8" Cove strip top with 1" radius bottom)	8.5 lin.ft.	20.5 lin.ft.
6" Radius Cove (Flush troweled top with 1" radius bottom)	17 lin.ft.	41 lin.ft.
8" Radius Cove (1/8" Cove strip top with 1" radius bottom)	6.5 lin.ft.	8 lin.ft.
8" Radius Cove (Flush troweled top with 1" radius bottom)	13 lin.ft.	16 lin.ft.

Multiply above yields for larger mix volumes:

Times 2 above for 1 ½ gal. kit yield
- Loose mix = 50 lbs. sand
- Stiff mix = 72 lbs. sand

Times 4 for 3 gal. kit yield
- Loose mix = 100 lbs. sand
- Stiff mix = 144 lbs. sand

RADIUS COVE APPLICATION – Spread the cove mixture using either a flat trowel, metal spatula or margin trowel leaving enough room for the cove mixture to form a radius at the junction between the wall and floor intersection as well as to fill all voids in the wall surface. Immediately finish the cove using a cove trowel with the appropriate height for the cove and the desired radius.

Smooth the cove mixture by finishing with a slight angle across with surface to compress the cove mixture flat and evenly where desired and feather down any product that remains on the horizontal floor surface to allow for a proper transition between the wall and floor.

NOTE – Floors are typically a bit uneven therefore some floor areas may have more cove mixture remaining than surrounding areas and, for the best visual aesthetics, should be transitioned out further from the wall at those sections to give the wall a more even appearance.

Isopropyl Alcohol may be used to act as a trowel lubricant to achieve a closed surface. Finishing Radius Cove is a highly skilled task and surface irregularities may collect soilage.

Inside/Outside corners may be finished using smaller radius tooling or metal spoons after individually forming and shaping the corners. Once the cove has hardened, use a masonry rub stone to hone down any trowel marks or ridges that be unsightly in the finished surface.

NOTE - Color Quartz may show grinding marks that will not hide with additional clear coats.

45° CANT COVE APPLICATION – Snap a chalk line at the desired finish height of the cove along the wall. Spread the resinous cove mixture using a narrow flat finishing trowel at a 45°degree angle across the vertical/horizontal junction between the wall & floor, leaving enough material to fill all voids in the wall surface & floor surface.

Immediately finish the cove using a finishing trowel using a spray bottle to mist Isopropyl Alcohol onto the cove mixture as a finishing aid, as necessary, to achieve a well compacted, smooth even surface finish.

Allow the finish height of the cove to dictate the plane so that the cove remains even, do not follow the contour of the floor surface. Feather out / taper the cove material in any low areas as necessary to create the perception of an even floor at the wall. Inside/Outside corners may be shaped using smaller tooling.

Once the cove has hardened, use a masonry rub stone to hone down any trowel marks or ridges that be unsightly in the finished surface.

NOTE - Color Quartz may show grinding marks that will not hide with additional clear coats.

MIXTURE – GROUT COAT –

Smith's ISC COLOR PACK INDUSTRIAL SOLID COLORANT

3 gallon kit = 1 can Smith's ISC Color Pack
- Standard Colors = 3.5% by volume
- Whites, Yellows, Safety Red, Orange, or Greens = 7% by volume

Measure 2 Parts Epoxy GEL-150 Part A to 1 Part Epoxy GEL-150 Part B plus *(optional)* Smith's ISC Color Pack into the mixing vessel. Thoroughly mix using the low speed drill *(≤450 rpm)* with an appropriate mixing paddle for 3 minutes. Avoid whipping air into the mixture.

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EPOXY GEL-150 Thixotropic, 100% Solids, Regular Cure Epoxy

APPLICATION – Grout Coat: Once mixed, immediately pour out Smith's Epoxy GEL-150 in a straight bead & spread with a flat blade squeegee at 5 to 8 mils (200 to 321 sq.ft. per gallon) over most layers, although epoxy mortar typically requires 10 to 15 mils, evenly distributing the epoxy then back roll with a 3/8" nap non-shed paint roller attached to an extension pole to finish. Repeat process by pouring out a ribbon of freshly mixed Smith's Epoxy GEL-150 into the edge of the previously spread mix & continue spread while walking in the mixture with spiked/cleated shoes.

OPTIONAL LAYERS or TOPCOATS: Once cured, sanding or applying an optional proceeding layers & topcoats may occur. Cooler temperatures extend the cure time.

When topcoating or additional layers are desired beyond 24 hours of cure or in warm/humid application temperatures, abrade the surface using 80 to 120 grit metal screens using an orbital Low Speed Swing Buffer or diamond grinding (150 metal bond) to abrade the surface then cleaned prior to the next layer. For abrading cove, an orbital palm sander or sanding by hand with sand paper or similar may be necessary.

Wait at 14 hours after the application of Smith's Epoxy GEL-150 at 72°F before sanding or 24 hours if diamond grinding, to avoid damaging or smearing to the surface. More aggressive grit screens or sandpaper may create scratches, swirls or grooves in the finish of the Smith's Epoxy GEL-150, especially within the first 24 hours after the initial installation that topcoats or subsequent thin layers may not hide.

Hard to reach areas or depressions should be abraded using an orbital palm sander with 80 to 120 grit sandpaper. The surface should be uniformly dull with no scratches easily identified, then vacuum the entire surface followed by either a thorough Acetone solvent tack rag wipe or use an auto-scrubber with white, soft nylon bristle brushes using a neutral pH floor detergent then a clean water rinse. Once dry, check the surface to ensure all dust has been removed before proceeding with the next layer or desired topcoat product.

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 to determine the appropriate amount of slip-coefficient necessary 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 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. See product data sheet for recommended cure time necessary prior to mechanical cleaning via floor machines.***

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 stricter cleaning regiment.

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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 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.

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LIMITED LIABILITY: 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 allow with the invoice that matches said quantity. Defects determined after installation must be reported to Smith Paint Products within 10 business days of discovery.

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