



Epoxy Slurry

Description

Westcoat's Epoxy Slurry System is a multi-component, 100% solids epoxy floor coating, blended with slurry filler or graded silica. It provides a high-build system that is tough, chemical resistant, low odor and durable.

Uses

Epoxy Slurry is used to create seamless floors in manufacturing plants, mechanical rooms, warehouses, commercial kitchens, restaurants, garages and service areas. The Epoxy Slurry System is designed to be used as a medium duty coating.

System Overview



System Data					
Coverages	Primer 250-300 ft ² per gallon	Slurry Coat 20-21 ft² per mix at ¼" thick 40-42 ft² per mix at ½" thick 80-84 ft² per mix at ¼6" thick		Topcoat 250-300 ft² per gallon	
			Shelf Life)	
Components	EC-72 Epoxy Patch Gel EC-76 Cove Gel EC-12 Epoxy Primer EC-34 Epoxy Topcoat TC-71 Slurry Filler		2 years		
•			2 years		
			2 years		
			2 years		
			2 years		

Advantages

USDA Compliant • Chemical Resistant • 100% Solids • Low Odor • High Build • High Strength • Self-Leveling

Inspection

The surface must be structurally sound, clean, dry and free of grease, paint, oil, dust, curing agents, laitance or any foreign material that will prevent proper adhesion. The concrete should be at least 2,500 PSI and porous or rough enough to allow the product to soak in. A minimum of 28 days curing time is required on all concrete. Prior to starting work, test existing concrete slab for efflorescence, moisture and hydrostatic pressure.







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Preparation

Pre-cut and clean all cracks and joints with a concrete diamond blade to at least ¼ x ¼ inch. Prepare concrete to a profile equal to CSP 3-5 as specified by ICRI. Methods may vary according to the condition and hardness of the concrete. Other factors include the forecasted use of the surface and the environment in which it is to be installed. When preparing the surface use caution when shot blasting, scarifying too aggressively, leaving grind marks or grinding too smooth.

Moisture

All concrete should be tested for moisture before applying a seamless coating. If moisture emissions exceed 5 lbs/1000 square feet (ASTM F1869) or if the relative humidity (RH) exceeds 75% (ASTM F2170), please refer to the EC-15 Moisture Vapor Barrier Product Specification Sheet.

Crack Treatment

Mix 1 part A with 1 part B (by volume) of EC-72 Epoxy Patch Gel together for 3-4 minutes and apply to the crack using a trowel or putty knife. Patch all spalls and cracks with EC-72 and allow to dry 2-3 hours before priming. The material may be slightly overfilled in the crack and when completely dry (in 4-6 hours) can be sanded or ground smooth. If desired, use EC-76 Cove Gel to create cove at the wall to deck transition. Cove may be created using a cove tool. This remedial approach to patch cracks is not guaranteed and it should be noted that when the substrate moves, it could likely crack the Epoxy Slurry System.

Concrete Repair

For concrete that needs repairs beyond just dormant cracks, TC-23 Mortar Mix can be used. TC-23 is designed to be used as a general concrete repair mix for horizontal and vertical applications and can be used as a patching/underlayment material under most Westcoat systems. Please refer to the TC-23 Mortar Mix Product Specification Sheet for details.

Cove Base

Install cove cap or cut a reglet at the desired height (usually 6 inches). Mix 2 parts A with 1 part B (by volume) of EC-76 Cove Gel together for 3-4 minutes and spread as thin as possible onto the vertical surface. Immediately, using the same neat mix, combine with 5 parts TC-73 Epoxy Mortar Sand and trowel into place using an inside step tool and trowel to smooth. Lubricate the trowel using a solvenated rag, as needed, to keep tools clean.

Primer

Mix 2 parts A with 1 part B (by volume) of EC-12 Epoxy Primer together for 3-4 minutes. For best penetration into concrete, thin by adding 1-2 quarts of Westcoat's CA-23 to each 1½ gallon kit. Thinned material must be applied at less than 5 mils. To cure properly, do not allow product to puddle. Immediately apply at a rate of 250-300 square feet per gallon, using a trowel or squeegee and then back roll to ensure complete coverage. Be sure to apply up cove to termination point.







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Slurry Coat

Mix a 1½ gallon batch of EC-34 with approximately 1½ gallons of TC-71 Slurry Filler, to create an epoxy slurry mix. Use a gauge rake to apply slurry mix at approximately 20-21 square feet per mix at ¼ inch thick, 40-42 square feet per mix at ⅓ inch thick and 80-84 square feet per mix at ⅙ inch thick. After gauge raking, back roll with a porcupine roller to facilitate self leveling and to reduce the possibility of bubbles. Various aggregates, quartz sand or additional silica sand can be broadcast into wet slurry coat if needed, to help build up coating, level, hide additional imperfections or to create texture. When the coating is dry, scrape, grind or sand as necessary.

Topcoat

Mix 2 parts A and 1 part B (by volume) of EC-34 Epoxy Topcoat for 3-4 minutes. For color consistency, box all part A's. Apply at a rate of 250-300 square feet per gallon using a notched squeegee or trowel and back roll using a high quality, non-shedding ½ inch nap roller. If additional coats are desired, they must be applied within 24 hours or the cured material must be sanded and wiped with acetone, before application.

Prohibit traffic on floor for 48 hours after installation. Avoid heavy abrasion and chemical exposure for 5 days. Allow 72 hours minimum for vehicular traffic.

Optional Materials

Cement Options

• TC-23 Mortar Mix may be used as a general concrete repair mix for horizontal and vertical applications and can be used as a patching/underlayment material.

Skid Resistance

- CA-30 Small Safe Grip or CA-31 Large Safe Grip can be added to the EC-34 to produce a skidresistant surface.
- CA-33 Aluminum Oxide can be used for skid resistance in heavy traffic areas.

Slurry Coat

• For smaller projects, EC-36 100% Solids Epoxy plus the desired CA-36 Epoxy Color Pack can be used in lieu of EC-34 for the Slurry Coat.

Topcoat

 For smaller projects, EC-36 100% Solids Epoxy plus the desired CA-36 Epoxy Color Pack can be used in lieu of EC-34 for the Topcoat.

Additional Topcoat

- EC-32 Clear Epoxy Topcoat can be used instead of EC-34 when decorative quartz sand is broadcast into the slurry coat.
- EC-95G Gloss Polyurethane Topcoat can be applied over the epoxy within 24 hours to improve chemical abrasion and UV resistance, as well as gloss.
- EC-101 Polyaspartic 100% Solids may be used as a non-yellowing, high gloss, quick drying, high build, mar and chemical resistant finish with outstanding wear resistance.
- EC-102 Polyaspartic is recommended when tire staining is a concern and also provides a quick drying, UV resistant, high gloss, high build, mar and chemical resistant finish.
- EC-50 Novolac may be used as a final topcoat for extreme chemical or heat conditions.



^{*} Please refer to Product and System Specification Sheets for additional information.





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Clean Up

Uncured material can be removed with solvent. If cured, material can only be removed mechanically or with an environmentally-safe solvent.

Maintenance

Interior Floors can be dust mopped daily or mopped using a neutral pH cleaner. For more information on floor care and maintenance, please refer to the General Maintenance sheet.

If recoating of the floor is required due to wear or abrasion, you will need to clean and degrease the surface, then lightly abrade and reapply the topcoat. In most cases you will need to clean the surface with a solvent, such as acetone and thin the new topcoat as well. A primer may be required. We suggest you recoat at 5 years, depending on use. Contact Westcoat or your applicator for details.

Health Precautions

Inhalation of vapor or mist can cause headache, nausea, irritation of nose, throat and lungs. Avoid breathing vapors. It is strongly recommended that respirators are worn. Prolonged or repeated skin contact can cause slight skin irritation. All epoxies have the potential of causing skin irritations or allergic reactions. Be careful not to get on skin, clothes or in eyes. Gloves are strongly recommended. If splashed in the eye, flush with warm water and contact a physician if blurring persists.

Solvent based products are extremely flammable. Extinguish all pilot lights and sources of ignition, such as electrical motors. Be sure to have adequate cross ventilation prior to installing.

Limitations

- This system is designed for professional use only.
- Read Product Specification Sheets for every product you will be using before beginning the project.
- Be sure to do adequate surface preparation.
- Be sure to measure and mix properly.
- For interior use only.
- Test for moisture in concrete and vapor drive.
- Be aware of the pot life of mixed material.
- Do not apply in temperatures below 50°F or temperatures above 95°F. Cooler temperatures will cause slower dry times.
- Heavier topcoat may become slippery.
- Approval and verification of proposed colors, textures and slip resistance is recommended.
- Do not allow Westcoat products to freeze.

Slip Precaution

Westcoat Specialty Coatings Systems highly recommends the use of a slip-resistant additive to all coatings/systems that may be exposed to wet, oily, greasy or slippery conditions. It is the end user's responsibility to provide a flooring system that meets current safety standards. Westcoat and its distributors will not be responsible for injury incurred during a slip and fall incident. For the current coefficient of friction requirements, please consult your local building codes.







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Technical Data

ASTM / Test Data	Westcoat Epoxy Slurry		
Tensile Properties (ASTM D638)	Strength - Neat Epoxy 4,000 psi, Elongation - Neat Epoxy 12% (7 day cure)		
Tensile Strength (ASTM C307)	>1800 Resin, Hardener		
Flexural Properties (ASTM D790)	N/A - see Thin Film data		
Flexural Strength (ASTM C580)	4,000 psi (+/- 200 psi)		
Slant Shear Strength (ASTM C882)	N/A - see Thin Film data		
Compressive Strength (ASTM C-579)	11,000 psi - 7 day cure		
Hardness (Indentation - ASTM D2240)	80-85 Shore D - 14 day cure		
Indentation (Load - Mil-D-3134, Para. 4.7.4.2.1)	0.005 in indentation - 7 day cure		
	Method: 1 in. diameter steel ram steadily applies a load of 2,000 lbs for 30 min on the test specimen that is placed on the concrete.		
Indentation (Impact - Mil-D-3134, Para. 4.7.3)	0.014 indentation - 7 day cure (No chipping, cracking, loss of adhesion)		
	Method: 2 lb steel ball is dropped twice from an 8 ft. height		
Adhesion to Concrete (Tensile Pull - ACI 503 R)	350 psi (100% concrete failure CSP 3-4)		
Abrasion Resistance (Taber - ASTM D4060)	50 mg. 1000 cycles, 1000 g. load, Wheel No. 17 14 day cure		
Water Absorption (ASTM C-413)	<0.2% - 7 day cure		
Thermal Coefficient of Linear Expansion (ASTM C-531)	10.0 x 10-6 in. / in./°F (7 day cure)		
Fungus & Bacteria Growth (Mil-F-52505, 4.4.2.11)	Will not support growth of fungus or bacteria when subjected to mildew and bacteria tests		
Microbial Resistance (ASTM G21)	Pass		
Thermal Shock Resistance (ASTM C-884)	Pass		
LEED EQ Credit 4.1	Meets		
LEED EQ Credit 4.2	Meets		
Temperature Resistance	Continuous exposure: 140°F Intermittent exposure: 200°F		
Flammability Rate of Burning (ASTM D635)	CC1 (<25mm) will not sustain a flame (free film), also will not sustain a flame over concrete		
Flame Spread (ASTM E-84/NFPA 255)	Un-rated system		
Critical Radiant Flux (ASTM E648)	Class I (>45 watts/cm2)		

